

Summer 2019

Conceptualizing Governance Decision Making: A Theoretical Model of Mental Processes Derived Through Abduction

Matt Loesch
Old Dominion University, contactml@protonmail.com

Follow this and additional works at: https://digitalcommons.odu.edu/publicservice_etds



Part of the [Political Science Commons](#), [Public Administration Commons](#), and the [Public Policy Commons](#)

Recommended Citation

Loesch, Matt. "Conceptualizing Governance Decision Making: A Theoretical Model of Mental Processes Derived Through Abduction" (2019). Doctor of Philosophy (PhD), dissertation, School of Public Service, Old Dominion University, DOI: 10.25777/xvpq-e948
https://digitalcommons.odu.edu/publicservice_etds/41

This Dissertation is brought to you for free and open access by the School of Public Service at ODU Digital Commons. It has been accepted for inclusion in School of Public Service Theses & Dissertations by an authorized administrator of ODU Digital Commons. For more information, please contact digitalcommons@odu.edu.

CONCEPTUALIZING GOVERNANCE DECISION MAKING:

A THEORETICAL MODEL OF MENTAL PROCESSES

DERIVED THROUGH ABDUCTION

By

Matt Loesch
B.A., 2007, Muhlenberg College
M.S., 2010, Old Dominion University

A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the Requirements of the Degree of

DOCTOR OF PHILOSOPHY

PUBLIC ADMINISTRATION & POLICY

OLD DOMINION UNIVERSITY

August 2019

Approved By:

Berhanu Mengistu (Director)

Katrina Miller-Stevens (Member)

Joshua Steinfeld (Member)

Gail Nicula (Member)

ABSTRACT

CONCEPTUALIZING GOVERNANCE DECISION MAKING: A THEORETICAL MODEL OF MENTAL PROCESSES DERIVED THROUGH ABDUCTION

Matt Loesch
Old Dominion University, 2019
Director: Dr. Berhanu Mengistu

The field of Public Policy and Administration is heavily influenced by the decisions individuals make regarding matters of governance. These types of decisions can affect a broad scope of government-related activities ranging from esoteric debates about political ideology to policy development to specific ways in which people directly interact with public services. Unfortunately, in the view of this research, there is no sufficient model for conceptualizing governance decision making. This creates the focus of inquiry for this work, which is to examine how governance decisions are conceived of and formulated. The purpose of this research is then to analyze the governance decision making processes. This is achieved by examining the available research on decision making processes and then contrasting the widely applied rational approaches with the more applicable nonrational approaches for decision making. This review will indicate that a nonrational conceptualization based on schemas, heuristics, and a societal-level shared mental model may be more instrumental in analyzing governance decisions than rational conceptualizations. The unique but necessary methodological approach of abductive logic is used to develop a theoretical foundation for this new perspective. An application of abductive principles is used to create a framework that anchors governance decisions. The result of these efforts is a model that can serve as a tool for analysis of these important and influential decisions in governance.

Copyright ©, 2019, by Matt Loesch, All Rights Reserved

This dissertation is dedicated to Professor Berhanu Mengistu. As his last student, I assume it was the task of having to read all of the drafts of this work that pushed him into retirement. It was an honor, Good Sir.

ACKNOWLEDGEMENTS

I think it is important to first acknowledge you, the reader, and in doing so state that I wish to issue a few disclaimers. I meant to write this work with an ideologically agnostic/indifferent tone. I, like most others, do indeed believe that some forms of governance are far superior to others, but, for the sake of intellectual exploration, I attempted to put a wide variety of different ways of thinking on equal footing. In those efforts, I also had to use many terms that already carried with them a lot of preexisting meaning and baggage, simply because no other terms could be found that more accurately reflected the concept(s) I was trying to convey. If any of the ideas presented in this work could be more precisely communicated with another term or even a new term altogether, I wish I could have made those term(s) available to you, the reader. Finally, I went to great lengths to make sure I gave credit to any and all sources I used for the creation of this work. However, if I made any errors in that process and if my committee, my proofreaders, and I all missed something, I sincerely apologize for any unintentional mischaracterizations or misattributions.

Next, I wish to acknowledge Professor Berhanu Mengistu. You, Good Sir, have made possible both this dissertation and much of the academic journey that preceded it. You supported me at times when few others would, you challenged my ideas when they needed refinement, you welcomed me into your home country, you demanded better out of me when there was more to give, you consistently approached challenging situations with an eye towards empathy and compassion, and you mentored me at all of the times I needed it most. I owe you a significant debt of gratitude.

I also wish to acknowledge my committee members (Dr. Katrina Miller-Stevens, Dr. Joshua Steinfeld, and Dr. Gail Nicula) for staying with me through the process and for making

significant contributions in regards to suggestions for improvement. None of you had to help me, and none of you had to deal with the headaches of a theoretical piece that ventured into uncharted waters, but you all did, and you are all wonderful people for doing that. You all accommodated a unique methodological approach, maintained a willingness to stay open minded, and conveyed a tenacity to keep pushing for improvements.

I must also acknowledge the many past professors and classmates that helped me acquire the building blocks of knowledge I needed for this work, helped me see the many different ways that people can think about things, and helped me feel ready to try to tackle a theoretical piece. I am particularly thankful of my original cohort in Psychology and the enduring and supportive relationships of that group. Those folks, like many other friends and loved ones that deserve significant acknowledgment, kept me sane, helped me stay gritty, and gave me motivation to persevere. I would be a fraction of who I am if many of those people had not been in my life.

Finally, and most importantly, I wish to acknowledge and thank my parents, Robyn and Alan Loesch. Their constant dedication and substantial sacrifices made all of this work possible. They have consistently been an ideal example of unconditional love and support. I thank them for their extensive range of imparted knowledge, their positive influences, and their willingness to enthusiastically explore the fringes of ideas with me. I also greatly admire and wish to acknowledge their many years of effort as public servants and the numerous ways they have worked to improve the lives of those around them. A lucky person would hope to be fortunate enough to have them as parents, a wise person would aspire to be as knowledgeable as them, and an honorable person would endeavor to be as virtuous.

TABLE OF CONENTS

LIST OF FIGURES	ix
-----------------------	----

Chapter

I. INTRODUCTION	1
Overview of the Problem and Research Focus	4
Intellectual Merit.....	12
Broad Impact.....	14
Problem Statement	17
Research Question	19
Overview of the Methodology and Hypothesis	21
Chapter Summary and Looking Ahead.....	25
II. LITERATURE REVIEW OF GOVERNANCE DECISION MAKING.....	27
Exploring Governance	27
Decision making	29
Rationality.....	30
Irrationality & Sub-rationality	32
Transitioning from the Rationality-Irrationality Spectrum.....	36
Nonrationality	37
Shared Mental Models	40
Robustness Through Simplicity	42
Heuristics & Biases.....	43
Environmental Influences	46
Perspectives, Schemata, & Preferences	50
The Nonrational SMM of Governance	53
Chapter Summary and Looking Ahead.....	56
III. METHODOLOGY	57
Research Approach	57
Methodology	58
The Development of Theoretical Models	59
Exploring Abduction.....	61
Scientific Discovery.....	65
Evaluating Abduction	67
Research Design.....	70
Summary and Applicability of the Methodological Approach.....	75
Abductive Methodology for Schematic Structuring	90
IV. ANALYSIS.....	93
Vector Articulation	94
Clue Identification	94
Evidence Structuring.....	135

Linkages Through Reconceptualizations	137
Application of Schematic Lenses.....	150
V. RESULTS	155
The Operation of the Nonrational Model.....	156
Exploring Ideologies.....	164
Spatial Representations of Governance Heuristics	166
VI. DISCUSSION.....	191
Research Approach	191
Theoretical Implications and Applications	192
VII. APPLICATION I.....	198
Applying the Model to the Selection of Public-Private Partnerships	198
The Structure of Privatization.....	199
What is privatization?	200
Why do people want privatization?	203
Pressures as Philosophies.....	205
Elements of Privatization.....	212
Relating Privatization Forces to Entities.....	215
Privatization Structures.....	217
VIII. APPLICATION II.....	225
Thought Experiments.....	225
Thought Experiment #1	226
Thought Experiment #2	231
Thought Experiment #3	241
Thought Experiment #4	247
IX. REFERENCES	252
X. VITA.....	270

LIST OF FIGURES

Figure 1. Four core interest/positions.	133
Figure 2. Core governance values, evaluative metrics, and dominant areas of inquiry.	135
Figure 3. Exploring the connection between interest/positions and values.	137
Figure 4. Developing the identity associations of each interest/position.....	139
Figure 5. Connecting the different aspects of schematic frames.	140
Figure 6. Complete schematic lenses used for governance decisions.	149
Figure 7. Possible relationships between interest/positions.....	167
Figure 8. Characteristic manifestations of each of interest/position-based perspective.	169
Figure 9. Core ideologies associated with governance decision making.....	190
Figure 10. Kolderie’s spectrum of provision & production, differentiated by publicness.	203
Figure 11. Placing the forces in favor of privatization on the Kolderie framework.	210
Figure 12. Entities in the privatization process.....	214
Figure 13. Privatization entities in the Kolderie framework.....	217
Figure 14. Proposed idealized privatization structures for each condition.	219
Figure 15. Ideological transitions related to perspective pervasiveness.	230
Figure 16. Straight line combinations.	233
Figure 17. End frame equivalency combinations.	236
Figure 18. Third tier offshoot combinations.	236
Figure 19. Three second tier frames.	237
Figure 20. Equivalent first tier frame combinations.	238
Figure 21. Equivalent first and second tier frame combinations.	239
Figure 22. Combinations with three equivalent first tier frames.	240
Figure 23. The development of Holistic Governance.	245
Figure 24. Holistic governance presented as an ideological option.....	246
Figure 25. Environments lacking a core schematic frame.....	249

CHAPTER I

INTRODUCTION

Government actions, known as governance, can affect many aspects of society. The actions of government can bring with them great risks and costs (Kettl, 2018). One can evaluate several different parts of these actions, such as how their courses of action developed, how they were implemented, or what type of impact they had. One could also evaluate these actions at a more foundational level. Their origin could be investigated by exploring the choices that were made, choices that resulted in those government actions coming into existence. To do this would be to study governance decision making. That is the focus of this work.

This area of inquiry is worthy of attention for two fundamentally important reasons. First, it is believed that to understand governance decision making is to understand the source of any government action. To know the origin of a government action may mean being able to more positively influence its formation, implementation, and application. It is reasoned that progressing such understandings could lead to the development of government actions that are more preferred and satisfying to the people receiving them. Changes of this nature could reasonably be viewed by the average person as improving government. Second, exploring decision making is important as it is considered the foundation of public administration. In fact, disagreements over how decision making does and should work are at the foundation of public administration (Kettl, 2018). This research will look to help move these public administration disagreements in a positive direction. As Frederikson, Smith, Larimer, and Licari stated (2016, p. 1), “All great human events in history were probably achieved by what we today would call public administration.” It is determined here that to advance the field of public administration’s

understanding of governance decision making is to better enable the possibility for more of such “great human events.”

Any chance to improve governance and enable meaningful societal achievements through those improvements rests on the decisions that are made in the governing process. The collective decision by a governing body to act in some way can be linked back to the decisions of individuals and their conceptualizations of the governance process. Although interpersonal communication of perceptions likely requires some form of shared understanding regarding what different preferences mean, the process of decision making happens in the mind of each decision maker. Researchers cannot though directly observe these cognitive processes and rely on inferential explanations for describing people’s decision making processes (Hindmoor, 2006). Yet, given the potential impact of these decisions, understanding how they happen is valuable. That understanding may be best represented in the form of a model. Regrettably, no model exists that is believed to sufficiently conceptualize the decision making process associated with governance.

Justifiably, the influence of politics in government can cause this void of understanding governance decision making to be filled by some spectrum-type political model. However, it is argued in this work that such models are too simple for capturing the complexity of the governance decisions that public administrators make. To more suitably address this complexity, researchers have the option of turning to other types of analytical tools, such as those that are based on the concept of rationality. These can be tools such as decision-tree, regression-based, or cost-benefit-type models. These approaches are frequently considered to be acceptable because it is often believed that, to some degree, individual decision makers act in a rational, logical manner.

This belief is cultivated through the application of rational choice theory. This theory emphasizes that the individual decision maker chooses the path that can deliver the highest return in utility. This theory then brings along with it methodologies and approaches that match that view of the decision maker's cognitive processes. Although there is undeniable value in comparative utility analyses and in rational choice theory in general, this research takes the position that they inadequately represent the governance decision making process. This is because, in reality, decision makers seldom engage in all-encompassing utility calculations (Rogerson, Gottleib, Handelsman, Knapp, & Younggren, 2011) and instead take a judicious approach in the expenditure of their cognitive resources (Downs, 1957). These findings call into question the extent that rationality is even used at all for governance decision making.

To address these challenges to rational choice theory's applicability, this research explores a decision process that avoids the principles of rational choice theory. This research states that decision makers instead rely on a nonrational form of logic in their cognitive processes. Nonrational approaches, which are different from mere irrational ones, emphasize maximizing the use of cognitive resources instead of the rational approach of maximizing utility. In general, this view on decision making maintains that individuals use certain keys for sorting and processing information. They then do those acts in a manner that helps them adeptly navigate the complexities of matters like governance decisions while still helping them arrive at choices that match their core preferences. Moreover, to the extent that a decision maker's interpersonal environment shapes these nonrational approaches, decision paths can be imparted between people. This phenomenon creates what is called a shared mental model, and such a model may be prevalent for governance decisions.

The view of governance decisions as part of a societal-level shared mental model may be more accurate and instrumental of a view to take than that of any rationality-based conceptualization. It is the goal of this research to explore the potential formation of such a shared mental model. A theoretical development of this sort could then serve as a tool for analyzing the important and influential actions of governments. It could potentially do this by providing a useful conceptualization for assessing how the governance decisions preceding those corresponding government actions occurred.

Overview of the Problem and Research Focus

This work explores the theoretical underpinnings of government actions, actions which can affect virtually every aspect of interpersonal, geopolitical, and sociopolitical life. Governments of varying sizes and forms can exert great influence on how people live their lives. The activities of governments make history and change the world. Understanding how those significant activities come to be and, more importantly, how people put those actions in motion is the inspiration for this research.

The actions of a government, known as governance, can be examined by looking at the choices that were made leading up to those particular actions and outcomes. Any choice that is made is the end result of some decision-making process. It is assumed in this work that decision-making can be thought of as a universal process occurring in the minds of all people, that the process helps a person make a choice of some nature, and there is great potential for research to learn more about this process. These assumptions have important implications on exploring the activities of a government. Specifically, in order to gain a better understanding of what a

government does and why, one must gain a better understanding of the decision-making processes underneath those governance actions.

This work's perceptions of governance and governance decisions are framed, in part, by the contributions of Bevir (2013) and Hufty (2011). Governance decisions, because of their subject matter, are believed here to be a unique domain of decision making, even if the functional processes for making those decisions are like other similar types of decisions. Governance decisions are defined here as the choices and policies that are made by some governing body in order to structure, regulate, and maintain the rules, initiatives, and culture of the entities associated with that governing body. These governing bodies could be of various forms, sizes, and degrees of formality. They could be in the form of a small family unit, a tribe, an organization, an established government, or any other sociopolitical group charged with the task of governance decisions. It is asserted in this work that although the many types of governing bodies make many different types of decisions through different formal and informal procedures, the governance decision making processes they go through all share common foundational elements. It is assumed here that there are enduring features related to the political interplay of preferences and motivations that cross structural and functional boundaries.

These governance decisions are studied from the context of the thought processes of individual decision makers, be that how they might be structured and what might influence an individual's direction within that structure. This context of individual decision making is believed to culminate at aggregate levels as the decision making of organizations and entities that govern societal functions. In order to know how any organization or entity engages in governance, it is then dependent on knowing the individual decisions maker and how he or she may approach a decision of governance.

There are a number of challenges with this exploring the cognitive processes associated with governance decision making. Examining decision making means exploring the “black box” of human cognition, where although brain activity can be monitored, the exact mechanisms of thoughts are unknown. As Hindmoor (2006, pg. 182) wrote, “We cannot directly observe mental phenomena and that reference to them in explanations of individual behavior must therefore be entirely inferential, non-fashionable, and unscientific.” Governance decisions by any given person might occur through some combination of that person’s inherent abilities and learned skills, but people might fall into patterns or categories for their decisions. Since there are some aspects about how a person’s mind operates that are unknown, this study is about exploring what the structure of those decisions might look like.

Even though the decision making process can be messy and circular (Mintzberg, Raisinghani, & Theoret, 1976), a general classification system has been developed for governance decision making. According to Kettl (2018), decision making in bureaucracy has four main approaches: rational, public choice, participative, and bargaining. A public administration decision maker using the *rational approach* would comprehensively assess all pertinent information and attempts to maximize efficiency, where the greatest return on investment (ratio of inputs to outputs) can be achieved. The *public choice approach* has a public administration decision maker that is more self-interested and goes for the option that offers the most perceived utility. A public administrator using the *participative approach* would look to those most affected by a decision for input on the best path to take. Finally, the *bargaining approach* would have a public administrator confronted with a decision that tries to maximize political support for any choice that may be selected. Kettl notes that each of these four approaches to decision making come with various advantages and disadvantages, and none of the

four adequately or comprehensively solves the challenges associated with stating how public administration decisions are or should be formed.

Of these four approaches, much of the research on decision making has focused on the concept of rationality. Specifically, many of the analyses conducted in this area of research hold the assumption that some form of rational maximization of utility is conducted by the decision makers in question (Jones, 2003). Utility, a concept introduced by Bentham in 1789, is an evaluation of the extent to which an action brings happiness to a person, such as the marginal difference of pleasure over pain. In a generalized sense, this means that the decision maker attempts to optimize their outcome by choosing one path of choices over some other set of choices. The resulting ranking of alternative choices in a decision creates what is known as a utility function (Halpern, 1998), and that utility function becomes a guide for directing the decision maker to a particular decision path. Predicting an individual's utility functions predicts their behavior (Kettl, 2018).

The notion of a rational utility analysis guiding the actions of a decision maker is the basis for a core concept in the area of public policy and public administration research known as rational choice theory. This theory based on the assumption that people are rational utility maximizers of self-interest is also sometimes called public choice, or principle-agent theory (Kettl, 2018). Rational choice theorists equate rationality not just with reason but also with optimality. These theorists also assume that people not only have reasons to act the way they do but that the beliefs that people have for why they act in certain ways are the best possible beliefs to have given the available information. Rational choice theory has five main assumptions including the assumption of rationality, self-interested actors, methodological individualism, the ability to use models to convey behavior, and political individualism for creating the preferences

that act as criteria for judging outcomes (opposed to a universal and singular view of what is best) (Hindmoor, 2006).

In rational choice theory, theorists look not just to describe what happened but also why it happened (Hindmoor, 2006). In doing so, preferences and choices are considered one in the same for both their definition and measurement (Heath, 1976). Riker (1990) believed rational choice to be the only model with the ability to help political science research meet the requirements of being scientific, given its ability to help create generalizations for describing phenomena. Rational choice has helped form the backbone of several theories such as explanations for party competition, coalition building, and collective action (Hindmoor, 2006).

The theorists that have used rational choice have claimed it has a universal ability to explain any and every aspect of political life (Hindmoor, 2006). Government decision making “occurs in a tangled context of economic optimums and political warfare” (Downs, 1957, pg. 52). Rational choice theorists believe that there are predictable explanations for untangling those situations and use utility comparisons to describe those relationships. Through these practices, rational choice theory helps connect the study of politics and economics. More specifically, rational choice theory is viewed as the intersection between the two areas of thought (Hindmoor, 2006). Economics is defined by Krugman and Wells (2012) as the study of the production, distribution, and consumption of goods and services, and politics is defined by Lasswell (1936) as who gets what, when, and how. Rational utility analysis is a tool of economics that, when applied in the form of rational choice theory, is believed to describe the choices people make politically about the production, distribution, and consumption of government-related goods and services. This perceived association creates the connection for political scientists to use rational choice theory to evaluate choices and decisions.

The decision making process takes time and cognitive resources, so a person must carefully choose what resources to use and how to use them when making a decision (Downs, 1957). This need for resources brings about the main criticism against rational choice theory. It alleges that the computational operations that a person is required to do in their mind in order to select the choice that maximizes utility are simply too difficult to reliably and repeatedly conduct (Simon, 1955). Hindmoor (2006) summarized other criticisms of rationality, such as the accusations that people merely use bounded rationality, do not act in instrumentally rational ways, are not only self-interested, and can be bound in the selection possibilities by societal and cultural factors. Despite these criticisms, "...rational choice still retains a large number of adherents and continues to shape much of the political science research agenda. A large number of articles published in journals *American Political Science Review*, the *British Journal of Political Science*, and the *American Journal of Political Science* continue to use rational choice theory" (Hindmoor, 2006, pg 18), despite a strong push for the use of other methodologies (Hindmoor, 2006).

This push for other methodologies often comes from the view that there are actually few times in which a person has the ability to be fully rational (Rogerson, Gottlieb, Handelsman, Knapp, & Younggren, 2011). This does also not imply that just because a decision is not fully rational does not make it fully irrational. Decisions can be assessed not just for their level of striving for utility maximization but also for their structure. The category label for these types of cognitive processes is nonrational decision making. Nonrational decisions differ from rationality-focused decision process assessments in that they focus less on utility maximization but rather maximizing the use of cognitive resources. Through the application of procedural shortcuts and resource-saving strategies, a person's search for workable solutions to otherwise complex

decisions can become much easier. Nonrational approaches attempt to scan and simplify any large and complex sets of information into meaningful chunks of information in order to make it more manageable and more easily dealt with. The chunking of information can help a person get the gist of the content with an expenditure of less resources than a rational approach would require (Fukukura, Gerguson, & Fujita, 2013; Henderson, 2006; Wakslak, Trope, Liberman, & Alony, 2006).

This nonrational approach may also be important beyond being able to avoid some of the main criticisms of rational choice theory. This may be because the heart of rational choice theory, rationality, may be insufficient for both accurately modeling governance decision maker behaviors as well as insufficient in its ability to address the complexity of governance decisions. According to Heath (1976, pg. 79), “Rationality has nothing to do with the goal which men pursue but only with the means they use to achieve them.” It is assumed in this work that, should that characterization of rationality be accurate, this distinction highlights how rational choice theory may fall short of properly conceptualizing governance decisions. More precisely, rational choice theory runs into two challenges for governance decision making research: the resource allocation process and the outcome focus.

The first of these two challenges, the resource allocation process, has already been addressed. In the complex world of governance decision making, it is doubtful that public administrators engage in complicated mathematical calculations of utility for their decisions. It is assumed that they are more likely to use a decision making process that uses shortcuts and saves them time and cognitive resources. As an example, even a cost-benefit analysis, which seems purely rational, involves using shortcuts such as various metrics, whether they are a required rate of return, a form of measurement, or a benchmark.

The second of the two challenges, the outcome focus, addresses the view that rationality, and thus rational choice theory, has nothing to do with the goal of a decision making process. It is asserted in this work that public administrators do indeed focus on the goal and outcomes of governance decisions. They may be concerned with other people affected by their decisions, with the adherence to certain values or ideologies they hold, or with the need to operate within certain predefined situational parameters. There is some logical support to this second challenge that comes from the first challenge.

If it can be assumed that the cognitive process that is happening for a governance decision is not a matter of rational choice and utility maximization, then there are a number of potential outcome options for any decision that are essentially disregarded as unworkable choices. This means that only certain choices are assessed in the decision making process. This set of possible choices would only be those with anticipated outcomes that are preferable to the decision maker. If true, this means that before a decision is even made, a person engaging a decision regarding some governance matter has eliminated certain choices from being possibly selected in the decision. Evaluating all choices would be too demanding.

With the elimination of the decision making paths that lead to the less preferred choices, any other remaining choices are considered, by default, as more preferred choices. These preferred choices are likely favored because the decision maker believes they have a high likelihood of leading to an outcome close to some predetermined goal. It is assumed here that with a goal already in mind, a decision maker will use as few cognitive resources as possible for selecting a choice that achieves that goal. A decision process that emphasizes the minimization of expensed cognitive resources instead of attempting to maximize utility would be best characterized as a nonrational process. This logic leads one to believe that a governance decision

making process not only leans towards a nonrational approach but expressly avoids the complexities that would come with the rational choice means-focused and goal-disregarded principles.

The use of rational choice theories would be an otherwise acceptable approach to assessing governance decision making, but the assumptions of this work preclude that method. Without the guidance of rational choice theory assessing the governance decision making process, researchers are left to look for a nonrational approach to assessing these activities. No satisfactory nonrational approach is believed to exist. The drive to confront this perceived unknown is the motivation for this research.

Intellectual Merit

There are several ways that this research will explore original ideas, advance knowledge, and provide important and valuable conclusions. The current research addresses this perceived lack of a strong conceptualization of how governance decisions are formulated. This work takes the stance that the application of nonrational approaches may help create an accurate representation of the mental model used by governance decision makers. The study opens an important line of research about the influence of one's values and the mechanisms for creating and using mental shortcuts in order to make a governance decision.

This study is grounded in the body of social science literature that addresses the way people are believed to make decisions and choose between governance alternatives. The current research creates a theoretical model of governance decision making and the factors that affect that process. This model explores how those views and preferences culminate into dominant

ideological outlooks for each individual decision maker. It is considered a novel contribution to articulate the manner in which these inclinations coalesce into a particular stance on governance.

With an accurate nonrational conceptualization of governance decision making, certain scientific applications of Public Policy and Administration may be able to be explored in the manner they are in other social sciences. For instance, the push to create refined scales for assessing personality variables in Psychology lead to a great variety of connected, applicable, and comprehensive research (e.g., McCrae & Costa, 1985). It is proposed in this work that the structure of these governance decisions likely start at the basic impulses of some core values and culminate in widely applicable and enduring ideologies. Unique metrics may be able to be developed for these aspects of the model that this research will present.

The ability to develop an accurate conceptualization of governance can affect what outcomes for governance actions are sought or how outcomes of governance actions are evaluated. These outcomes though can have significant, real world impact on people's lives. They may affect who gets what, when, and how, and, as Harold Lasswell (1936) indicated, that means politics. This influence of politics on governance makes fully understanding and deconstructing governance situations more difficult. This is because politics brings with it certain terminology, and it is unclear how much of that terminology is universally defined and accurately applied. It is unclear how often people merely adapt political terminology to fit their preexisting views on governance actions, and it is unknown exactly how the perceptions of ideographs affect decision making. People seem to tackle the terminology challenges of the political arena by using some version of classification models (e.g., political parties, ideological spectrums, or matrices built from preference axes).

It is believed here that these types of political models insufficiently explain why a person might prefer one particular governance approach over another. They may work well for purely political analyses, but they seem to fall short of being able to specifically address governance related matters. This means that people may feel they have some level of comfort with their political affiliations but have some level of uncertainty about how these political views translate to governance matters. This may cause people to struggle with selecting the governmental leaders that they believe are right for them or struggle with easily identifying ideological friend from foe when arguing over a particular governance action. The model presented in this work will remedy some of those uncertainties. It will do this by focusing specifically on governance related matters instead of politics per say. Having a model that takes such a view is an original contribution to public administration and public policy studies.

If this area of governance decision making is left unexplored, several opportunities could be missed. Public administrators could have a greater chance for experiencing unknowingly undesirable governance outcomes. People may be more easily manipulated into policies and practices that they are uncomfortable with but lack the analytical tools for expressing why. Moreover, without a comprehensive model for governance decision making, a trend might develop where the focus of decision making research in the field of Public Policy and Administration becomes merely case studies for specific purposes as opposed to more widely generalizable scientific concepts.

Broad Impact

It is believed that this research will be able to benefit other research as well as benefit society as a whole. The most immediate impact may be on research conducted in the field of

Public Policy and Public Administration. It is the goal of this study to provide a new framework from which Public Policy and Administration research can work from. Future research may benefit from acquiring a better conceptual grasp of a decision process at the heart of the actions it studies. A framework that presents a better understanding of what was going on in people's minds than what is currently available could open up a world of predictive models for researchers. With such prediction models, many opportunities to test and improve the proposed theory could occur. Additionally, it is the goal of this research to integrate streams of research from other social science fields (e.g., psychology, organizational behavior, and economics), in order to expand on how Public Policy and Administration thinks about certain key concepts.

In situations where government leaders must make governance decisions, they may at some point engage in making the choice of what is best and determine which path is best. For those times, it may be important for those decision makers to have a better understanding of what tradeoffs might exist for the choices they can make. Decision makers may not realize what types of governance actions should deliver in the future the highest level of satisfaction as a function of preference fit. If one knew what was going on in the heart of governance decisions, there is a chance that those decisions could be improved in order to better fit a desired outcome. One would presume that such developments would result in "better" governance and more satisfied citizens. Also, having a better understanding of governance could help government officials design better programs and initiatives.

Public administrators may also benefit. At times, public administrators may struggle with their ability to connect their values and preferences to the development of particular policy or government initiatives. Conclusions from this research may help understandings of how to develop public policies that are more able to inherently balance the preferences and views that

might otherwise have been believed to be competing, even to the extent of being mutually exclusive.

Public administrators also may not sufficiently identify where competing interests might be incompatible with other interests or when they could be combined into a new vision instead of being believed to be at odds. This research will aid public administrators in sorting out those types of situations. This research may help to reconcile competing entities during conflict resolution efforts. For example, if people are able to more accurately and instrumentally communicate their positions and interests, it may sow the seeds for constructive resolutions to disagreement. By being able to more explicitly understand the different avenues of approaching governance decisions, more unambiguous considerations can be given to otherwise disparate political factions in order to help foster buy-in.

There are several potential associations this work is implicitly proposing as assumptions when exploring conceptualizations of governance. Conceptualizations may be connected to perceptions, and perceptions may be related to perceived preferences. Preferences may be linked to personal evaluations, and positive evaluations are likely indicative of satisfaction. One's satisfaction with a thing is related to one's support and acceptance of that thing. Taken together, these connections could mean that a person's belief that they support some small action could in fact be connected to how they think that action fits into a larger conceptualization of governance.

If those associations are true, they would indicate that managing a people's conceptualizations and perceptions are linked to gaining their support. One can quickly see how such concepts could be of great interest to a government or a leader. Garnering support could bring followers and power. This could mean that governments, through various types of leadership, could be very interested in influencing people's perceptions of their governance. It is

assumed here that such efforts have happened for all sorts of reasons, from the most altruistic to the most malicious of reasons. Because of this motivation uncertainty, the more developed and accurate a people's conceptualization of governance decisions, the more likely they may be to have their government act in a manner that they support and desire. Conversely, the more inaccurate or misunderstood their conceptualization of governance decisions, the more potential there might be for undesirable governance outcomes to occur.

Citizens may struggle with understanding whether or not proposed acts of governance will or will not align with their preferences. As a result of that uncertainty, they may have to unduly rely on their affiliated political leaders to help them understand what to think and why. It is proposed here that those same individuals may have the potential to become more independent and empowered if equipped with the conceptual tools necessary for analyzing how governance actions fit their preferences on their own. Furthermore, this research may help people understand the perspectives, or at least the governance-related perspectives, of others and other cultures that are not inherently or readily comprehensible. It is the goal of this work to help make those potential outcomes a reality.

Problem Statement

For public policy and administration research, a lack of a nonrational model for governance decision making may cause studies to drift away from decision making research. This is unfortunate as continued research in this area could be essential to the development of scientific scales and metrics related to governance decision making. Lacking certain metrics or theoretical models for governance decisions for which metrics could be derived from, efforts to develop a more functional, impactful, and well-run governance system could be more difficult.

For instance, metrics for evaluating how a particular community makes decisions and selects certain governance choices could lead to the development of governance policies and programs that approach the underlying problem from a completely different perspective. This disconnect of perspective could lead to unnecessarily negative perceptions of the governance efforts. This concern relates to the research problem that this study addresses, which is how are governance decisions structured and processed in the mind.

The two forms of nonrational decision making of interest in this research are schemas and heuristics. They serve as shortcuts to fully rational processing. The first step of the nonrational process is the formation of a lens for the decision maker to view the world through. This contextually bound lens is called a schema. Schemas help people understand things by creating a framework and categories for information (Lord and Maher, 1991; Poole et al., 1990). Culture and context can determine the application of schemas and the social interactions between people using those cognitive lenses (Bartlett, 1932, 1995; McVee, Dunsmore, & Gavelek, 2005; Middleton & Crook, 1996; Saito, 1996, 2000).

Schemas though are not mechanisms for making decisions. For nonrational decision making, that is the role of heuristics, which are used for evaluating alternatives. Heuristics are methods for solving problems that allow a person to avoid dealing with complicated calculations and probability estimation. They do this by substituting rules of thumb and approximate representations (Campitelli & Gobet, 2010; McKenzie, 2005; Rogerson, et al., 2011). Working together, schemas screen and sort information based on preexisting perceptions and preferences. Heuristics then take over by using estimation techniques to approximate the decision path that is believed to be the most beneficial within the limited scope of options offered by the schemas set in place.

This type of nonrational use of schemas and heuristics has a very important role on not just individual but also group decisions. Many types of decisions must be made not just by the individual but by a group of people deciding together. This causes the need for a common decision making language in order to communicate, thus bringing about the concept of the shared mental model. This group level phenomenon of a shared mental model is where a group of people use a collective, nonrational game plan for achieving a decision (Klimoski & Mohammed, 1994, p. 403). Shared mental models help people understand systems, both currently and into the future (Halpern, 1998; Jonker, Riemsdijk, & Vermeulen, 2011).

Societally and culturally dominant schematic lenses and heuristic rules of thumb become then crucial to the way that a group of people can collectively work towards a decision. If the decision in question concerns how a people governs itself, then the type and quality of life that people live may be fundamentally tied to the shared mental model that is used for matters of governance. There may then be great value in examining what sort of shared mental model people use for governance since the decisions that result from it may affect many aspects of people's lives. Searching for this type of model is the focus of this research.

Research Question

This research explores governance, an important aspect of political science and public administration research which consists of government actions that can affect the interpersonal, geopolitical, and sociopolitical aspects of life. Given the wide variety of forms and functions that governance can take on, analyzing it can be difficult for researchers. One particular area of interest for analysis though is governance decision making processes. These processes are

important because they are the precursors to the vast range of possible governance actions that can occur and impact people's lives.

People are commonly thought of as acting in a rational manner when making decisions. This common assumption typically ties any inquiry into decision making processes to the perspective of rationality. Specifically, it ties researchers to the application of rational choice theory and the methods and assumptions that come with that approach. The rational choice theory relies on comparative utility analyses to assess choices. This may be a useful approach for assessing many types of situations, but this research takes the position that rational choice theory leaves much unanswered about the type of decisions people actually make when it comes to matters of governance. This position comes from the belief held by this research that the rational choice theory assumptions of people doing extensive calculations and being indifferent to decision outcomes are assumptions that do not match the governance decision making process.

Turning away from rational choice theory approaches may imply needing to abandon the variety of highly analytical assessment tools that appear to frequently require a much greater level of accuracy, certainty, and clarity than the information available from a person's governance decision making process can provide. Dispensing with these methods does not however require one to rely on the political side of governance and use political spectrum-type models for assessing governance decisions. This work views the place of those models as being most useful for analyzing partisan voting hypotheses as opposed to governance decisions *per se*.

This research asserts that a better answer may be to revisit the decision making process and explore a different perspective, the nonrational perspective. This perspective casts off the focus of maximizing utility in exchange for maximizing cognitive resources. This take on the decision making process is believed to be more useful for conceptualizing the governance

decision making process. Nonrationality is built upon components like schemas and heuristics for creating mental shortcuts for processing information. These resource saving approaches are common and have the ability to be much more widely employed than complex utility calculations. This wide potential applicability is also believed to be instrumental to interpersonal efforts to collectively agree on some governance approach. If true, this would imply that some type of shared mental model that incorporates outcome focused drivers for decisions could be the correct conceptualization for governance decision making processes. As a result of this line of reasoning, it is the goal of this research to create a model that accurately represents this process. It is believed here that any such model could bring a variety of benefits to researchers, government leaders, public administrators, and even the average citizen.

As a result of these beliefs, the central research question to this work can be formed. An assumption of this work is that understanding and deconstructing how governance decision making occurs would allow governance actions to be better analyzed and to be conducted in a more desired fashion in the future. From this line of reasoning, the main question of this research can be derived: *How are governance decisions formulated?*

Overview of the Methodology and Hypothesis

It is believed that a model of these decision making processes will be developed that can function as a tool or mechanism for explanation. This will be achieved by attempting to assess and structure the various aspects of governance believed to be a part of a nonrational decision making process. These aspects included potential elements such as frames of reference, ideological identities, political philosophies, societal positions, motivating interests, and other concepts potentially related to governance. It is believed that a model could be created with the

flexibility needed to account for a wide variety of types of governance decisions. Developing a model for understanding the governance decision making processes likely requires that the concept of governance be considered a unique context for thought and the acceptance of the assumption that there is a universal structure to the mechanisms of thought within that context. Although developing a new model such as this would be an exploratory approach, it could still offer useful suggestions.

Any proposed model of governance decision making should address a variety of perspectives, such as values, societal anchors, motivations, and outcome goals. In doing so, it should speak to how those views interact with one another, how certain lenses of perception can limit the ability for people to conceptualize other views, and how people may chunk information as a technique for dealing with otherwise overwhelmingly complex information and choices. Since it can be difficult to obtain quality information about the inner thoughts of public administrators' minds that they themselves might be unaware of, a methodology that can function without such information is needed.

The three types of logical argument that help form different broad categories of methodology used for research are deduction, induction, and abduction. The style of research conducted here cannot be done through typical inductive or deductive approaches. Induction would be applicable if there were a set of governance decision making cases that could have their implied results analyzed to infer if some universal rule is the cause of the found results (Timmons & Tavory, 2012). At this time, no suitable universal rule with theoretically-rooted origins for explaining how the wide range governance decisions occur is available to examine for its predictive power. Deduction would be applicable if the available observations of governance decision making could be used to lend support to or against the conclusions of some hypothesis,

with that hypothesis being entirely supported a priori by some theoretically-based assumptions (Copi, 1961; Copi & Burgess-Jackson, 1995). Again, with no currently available and suitable comprehensive explanatory theory for the wide range of governance decisions, no deductively obtained hypotheses could be constructed. To deal with the type of information associated with the governance decision making process, the methodological approach used in this research will be based on the principals of abduction (Douven, 2017; Haig, 2005). Abduction is needed for this type of assessment because of its ability to construct the theory for which research-guiding hypotheses of inductive and deductive approaches are built upon but do not inherently possess the ability to formulate independently (Timmons & Tavory, 2012).

The goal of abduction is explanation, accomplished through practical reasoning and scientific inquiry (Hoffman, 2010; Svenevig, 1997). Abduction starts not from nothing but rather from previous knowledge, then manipulates and reforms that knowledge (Paavola, 2014). Abduction creates hypotheses by making inferences from puzzling evidence (Haig, 2005). The process of abductive reasoning selects the most plausible hypothesis out of available alternatives (Svenevig, 1997). Abduction looks for an order for information that best characterizes and addresses the available observations (Reichertz, 2004). In abduction the value of explanatory considerations outweighs the need to require grounding in vast statistical information (Douven, 2017).

Abduction is the process of using otherwise confusing or surprising information to creatively infer new theories and hypotheses (Timmons & Tavory, 2012). With abductive logic, inferential leaps can be made in order to link concepts into a coherent framework. An abductively-derived search for explanation uses observation to develop categories and frameworks, and the resulting conceptualization then looks to provide usability and helpfulness

for some task (Paavola, 2014; Reichertz, 2004). Abduction can be referred to as the inference to the best explanation. New theoretical insights can take the place of old understandings (Timmons & Tavory, 2012). This method is used here because it is the primary process for producing new and innovative concepts, such as Darwin's (1859) explanation for evolution as being the process of natural selection. The use of abduction has been explored across many different areas of inquiry, such as artificial intelligence (Pople, 1973; Yamamoto, 2000), computer science (Magnani, 2001), law (Abimbola, 2002; Anderson, Schum, & Twining, 2005), linguistics (McMahon, 1994), medicine (Barro & Marin, 2013; Rejón Altable, 2012), and the philosophy of science (Lipton, 2004).

It is asserted here that the conditions for exploration that preceded some of those applications of abduction were structurally and characteristically similar to those faced by the search for a comprehensive understanding of governance decision making today. What is meant by this is that not only are inductive and deductive approaches inadequate for logically deriving an answer to some inquiry, but the information available for constructing a proposed explanation comes in the form of unorganized facts, clues, and relationships related to the phenomenon that could be sorted and arranged in a more instrumental, useful, or explanatory manner through abductive logic. Since the focus of this research is to bring structure to a currently unstructured conceptualization, the best choice for a method would be one that was tailor made for the process of discovery. Abduction offers this, although new views created through abductive logic can only be labeled as exploratory hypotheses (Douven, 2017). This means that the findings from this process can only be exploratory, and not yet provide supporting evidence, as it looks to create a new understanding.

In order to accomplish the desired analysis, the puzzling evidence surrounding the current state of affairs for governance decision making will be explored. Then the procedure of abductively analyzing the information will occur through the collection of various governance concepts, the grouping of these concepts, the comparison of different features of evidence, the structuring of associations, the mapping of a flow for decision making processes, the prediction of expected outcomes, and then, finally, the presentation of proposed schemas and heuristics modeling the governance decision making process. Throughout the process, explanatory coherence will guide identification of the inference to the best explanation. The resulting product of the abductive method will be a model that can provide a theoretical framework for how governance decisions occur.

Chapter Summary and Looking Ahead

This chapter explored the importance of governance decisions and some ways that those decisions could be analyzed. It was proposed that the nonrational approach should be used to assess decision processes rather than the standard rational approach. It was believed that this path could deliver a more accurate conceptualization of a decision making process focused on governance. This conceptualization was believed to be able to be formed into a model that could be used for an analytical tool. In order to explore the formation of such a model, a methodological approach based on abductive logic was suggested.

The next chapter will review literature relevant to governance and decision making. The information will specifically aim to convey the interactions between the nonrational practices of schemas, heuristics, and shared mental models. The goal of the next chapter will be to help

combine the two spheres of knowledge into one cohesive set of information that can be used to build a decision making model.

CHAPTER II

LITERATURE REVIEW OF GOVERNANCE DECISION MAKING

Exploring Governance

Many different topics and issues are encompassed within the term public administration (Smith, 2007). It is important to distinguish between “government” and “governance.” Government refers to “the formal institutions of the state and their monopoly over legitimate coercive power” (Stoker, 1998, p. 17), and it emphasizes the role of the state to rule (Ansell, 2007). Governance is a much broader concept with varied connotations that makes it difficult to define (Ansell, 2007; Keefer, 2004). There is no single indicator that can capture the concept of governance for empirical evaluations (Bjornskov, 2010), and even the overall paradigm of governance varies greatly in the ways it is constructed (Nyhlen & Liden, 2011). That said, it is asserted here that one way to conceptualize governance is as the processes that *both affect and come from* government. Governance addresses the governing processes and systems. It also extends past various formal processes to include the actions of both non-state institutions and society in general (Ansell, 2007). How public entities are organized and how members of society interact with those entities is also a function of governance (Smith, 2007). Governance even takes into account how governments are selected, the responsiveness of government to citizens, the policy-making networks actors operate within, and how policies are formulated and implemented (Kaufmann, 2003; Keefer, 2004; Rhodes, 1996). To analyze the mechanisms of governance, one must evaluate various aspects of structured knowledge, such as sociology, organizational theory, economics, and political science (Ansell, 2007).

The choices made in governance have been shown to have significant social, political, and economic effects (Bjornskov, 2010). These significant impacts raise the question of what

creates positive effects in these domains and, more simply, what represents “good” governance? Good governance is typically defined by “normative assumptions about how decisions should be made within organizations and the functioning of formal and informal structures for implementing such decisions” (Mehta, 2007, section p. 1). Good governance may also be associated with social trust (Putnam, 1993) or democratic values (Mehta, 20007). The United Nation’s, through the Commission on Human Rights, finds transparency, responsibility, accountability, participation, and responsiveness to be important aspects to good governance. Also, the United Nations 1997 Development Program identified eight principles of good governance. These organizational principles were a sense of responsiveness to stakeholders within a reasonable timeframe, mediating differences in order to reach consensus, being accountable to stakeholders, striving for transparency, working within legal frameworks, taking on long-term visions, guaranteeing the rights of all individuals, and having equality of participation in decision making (Mehta, 2007).

Good governance is also “increasingly seen as essential for ensuring national prosperity by increasing the accountability, reliability, and predictability of decision making in governments” (Mehta, 2007, section p. 1). This outlook means that governance decisions are likely to be ever more focused on achieving some vision of good governance. The direction taken for governance is based on some type of decision. Any analysis of political systems or government policies requires some understanding of how decisions are made. Unfortunately, how exactly governance decisions are formed is still in question. It is for this reason that theories concerning decision making are and should continue to be fundamental components to political science and public administration research (Nyhlen & Liden, 2011). What exactly though is a decision?

Decision making

A decision is “a specific commitment to action (usually a commitment of resources) and a decision process as a set of actions and dynamic factors that begins with the identification of a stimulus for action and ends with the specific commitment to action (Mintzberg, Raisinghani, & Theoret, 1976). The term “decision making” refers to the cognitive processes related to judgment, preference, classification, and inference (Gigerenzer, 2001). A great deal of research has been done to try to analyze these processes and gain a better understanding of how people make decisions (Einhorn & Hogarth, 1981). There are a number of academic journals that specifically focus on decision making, such as the *Journal of Behavioral Decision Making* and *Judgment and Decision Making* (Campitelli & Gobet, 2010).

The ability for a person to make a decision is related to how demanding the processing task is (Payne, 1982), but this process does not necessarily occur in a linear form with balanced tradeoffs (Hogarth & Karelaia, 2007). Often the process of decision making is circular and tumultuous (Mintzberg, Raisinghani, & Theoret, 1976). What is especially fascinating about the decision making process is a person’s ability to rather easily solve seemingly intractable problems (McKenzie, 2005). This may suggest that the profoundly complex types of decisions one may be presented with regarding matters of governance may be uniquely and somewhat inherently able to be handled by our cognitive systems. Any interest in these types of decisions then brings about a need to explore the causal mechanisms within this process (Nyhlen & Liden, 2011).

The process of making a decision can be extremely simple or expand all the way into something with an incredibly multifaceted configuration. Decision making research has persistent challenges and points of disagreement (Kettl, 2018). The challenges, as well as the

potential payoffs, associated with decisions have been the subject of much research, but more is needed. Of the research that has been completed thus far, a great deal of it deals with the concept of “rationality.”

Rationality

One of the most prominent models in judgment and decision making research is rationality, where a person is logical, analytical, and calculating in pursuit of explicit goals. In rationality, a decision maker is believed to be able to integrate all relevant information and produce some type of linear model for prediction of outcomes, weighting important factors as necessary (Hogarth & Karelaia, 2007). The information that produces the most desirable possible outcome is then used for directing the decision that is to be made. Although the criteria for a rational decision does not require the decision to necessarily be a “good” decision (Callahan, 2015), this approach is viewed as both an “elegant and powerful” model for decision making (Nitta, 2007).

Rationality is not a unified theory, and it can encompass a number of different theoretical arguments (Callahan, 2015). It is the dominant approach to decision making in Western societies, often being viewed as purposeful, fulfilling to one’s self-interests, and efficient. Efficiency occurs in rational decision making when, using the least amount of resources necessary, the decision maker is able to achieve the maximum outcome available (Nitta, 2007). First developed in the mid-seventeenth century (Gigerenzer, 2001), this concept of rational maximization is now the foundation of many different types of analyses (Jones, 2003).

For the process of maximal rationality, a decision maker is presented with a number of alternatives and selects the alternative with the highest expected value (Gigerenzer, 2001). If

there are multiple steps in a decision, the total expected value for all steps are added together in order for an alternative to be selected (Brownstein, 2003). An optimum choice is the alternative that has at least as many good expected consequences as any other alternative (Tyson, 2007). In making such choices, people have a tendency to overestimate positive outcomes for themselves (Hogarth, 1987; Yates, 1990).

Mathematical and statistical models define the conditions of optimality (Mendoza & Gutierrez-Pena, 2010). To better deal with conducting research with optimization, the notion of expected value was eventually replaced with the more useful concept “expected utility” by the mathematician Daniel Bernoulli (Gigerenzer, 2001). Just like with maximizing value, a rational actor attempts to maximize utility; this is also often referred to as “positive theory” (Campitelli & Gobet, 2010). In order to define a utility function, a choice merely has to be made between alternatives, causing a rank order to the options in the decision (Halpern, 1998).

In economics-based models, this approach is considered Rational Choice Theory (RCT). RCT establishes the assumption that people make logical decisions which lead them to the outcome that offers the most utility. RCT logic includes principles such as transitivity, coherence, internal consistency, and additivity of probabilities (Gigerenzer, 2001). People generally operate in this logical and self-interested manner (Halpern, 1998), and although having more information helps a person make a better decision, there is a point at which having more information stops being beneficial (Fukukura, Gerguson, & Fujita, 2013).

The process of rationality is not just about which decision alternative offers the most positive utility but rather which option delivers the highest marginal positive utility. This important distinction means taking into account not just the positive factors but also the negative aspects as well. This approach is known as cost-benefit analysis (CBA). Although maybe not

typically included as one of the standard tangible or intangible components of such analyses, part of the cost that can be included in a CBA is the amount of cognitive effort and time it takes to reach a decision (Brownstein, 2003 & Payne, 1982). A CBA also has the ability to account for the influence of environmental factors (Payne, 1982).

In addition to the challenge of trying to accurately include the right factors in a CBA, a rational decision making process can also have to account for elements of uncertainty. The level of uncertainty moderates expectations (McKenzie, 2005). This means that the determination of how much of a cost or benefit a particular factor is can be higher or lower depending on the amount of uncertainty present in the situation. A decision that does not include uncertainty is conceptually simple, but real-world decisions often include uncertainty. Statistics helps a decision maker deal with uncertainty, with the most useful models often including Bayesian inferences (Mendoza & Gutierrez-Pena, 2010). These models allow researchers to incorporate new evidence they come across in order to make what are assumed to be more accurate calculations. Techniques like this help a rational decision maker come to a more accurate degree of belief in an expectation by accounting for uncertainty, accounting for assumptions, and updating conclusions as new information is presented. Altogether, the rigor and comprehensiveness of a rational analytical process can, given the acceptability of certain assumptions, provide a decision-maker a high level precision.

Irrationality & Sub-rationality

Despite these various approaches for making a rational decision, decisions often fall short of achieving rationality. In many of these situations, a decision can be referred to as simply being “irrational.” According to common understandings of the word, a decision that is irrational

would be one that goes against logic, inadequately fits the goals of the decision, or is not thoroughly thought out. However, there may be many types of decisions that, although not on par with the standards of pure rationality, are also not entirely irrational in nature. A possibly useful representation of the concept is to consider a spectrum of decision making with rationality on one end and irrationality on the other. There may be a gradient between the two, and there may be elements of both rationality and irrationality within complex decisions. To the extent that a decision does not achieve full rationality but has aspects of rationality, it may be considered merely sub-rational. This less-than-rational status may accurately represent many aspects of governance, such as the creation of policy.

How policy decisions come about is an ever constant question researchers (Nyhlen & Liden, 2011), and what has been found out about policy makers is that they often break from the principles of rationality when making decisions (Hayes, 2007). Despite these dilemmas, many researchers in fields related to governance do not pay much attention to aspects of decision making (Jones, 2003). One of the few exceptions would be Graham Allison's book *Essence of Decision* that explored crisis decision making (Callahan, 2015). Despite examples like this, it is unfortunate that decision making does not receive more attention specifically in the realm of governance and policy arenas since the decisions of individuals form the "microfoundations for organizational behavior and national policy" (Nitta, 2007).

Much of the research that has been conducted in regards to governance decision making is most often anchored in the work of Herbert Simon (1947). Simon was a key figure in behavioral studies regarding decision making and was a strong critic of the idea of decision makers using perfect rationality (Campitelli & Gobet, 2010). Simon disagreed with the formal models used in economic theory, identifying them as "substantive" models, and preferred the

methods of experimental psychology and its ability to develop “procedural” models that he believed were more accurate to real life decision making (Tyson, 2007). Substantively rational behavior is that which fits the goal it aligned towards, and procedurally rational behavior is that which would be the outcome of sufficient deliberation (Simon, 1976). These challenges started the “cognitive revolution” of the 1950’s. Simon’s work on decision making used three main assumptions: (1) cognitive process, and not just performance, needed to be analyzed in order for accurate understandings to be developed, (2) the level of expertise that a decision maker possesses affects the quality and development of the decision, and (3) in place of assumptions of perfect rationality, decision makers were believed to use “bounded rationality” (Campitelli & Gobet, 2010).

Bounded rationality occurs when a person works towards a particular goal in a decision making process but falls short of some standard associated with perfect rationality in those efforts (Tyson, 2007). In bounded rationality, a decision maker is constrained by availability and completeness of information. They are also constrained by the time they have to come to a decision and even the overall cognitive limitations of the human mind (e.g., the inability to perform endlessly complex calculations and logic). Although a “good” decision can still be reached, it is frequently impossible for all alternatives to be analyzed and compared to ensure the “best” decision was made (Campitelli & Gobet, 2010).

This acceptance of something less than perfect led Simon to view decision makers instead as “satisficers.” Through the framework of bounded rationality, a person does not look to use the classic economic approach of maximizing but rather searches for a solution that is merely adequate for the parameters they have set for the decision (Mintzberg, Raisinghani, & Theoret,

1976; Nitta, 2007). Although a purely rational approach should lead to a single, ideal choice to make, satisficing can lead to many possible and desirable decisions to choose from (Nitta, 2007).

Another significant development for exploring governance aspects that challenged the ideas of pure rationality was presented by Charles Lindblom (1959) called “Incrementalism.” This concept developed shortly after the initial work by Simon on bounded rationality and satisficing, and is very close in nature. In incrementalism, change is believed to be reactive and made of just minor moves (Nitta, 2007), with those fringe steps as sometimes being somewhat irrational when looking at the larger picture of the full governance situation.

Lindblom (1959) established incrementalism because he disagreed with the then prevailing view that policy was the value-maximized decision that developed from deliberate rational analysis. He believed that a purely rational process like that was unattainable as there is often not absolute agreement on policy goals or sufficient information available to accurately predict the consequences of different potential policy paths. Rather, he believed policies came from the interaction of numerous actors building incrementally on previously established policies. Realistic limitations on time and information require policymakers to only examine a small range of options. It is this confined, sub-rational process of incrementalism that is necessary for any large scale policy to be developed (Hayes, 2007), but any given incremental step may be considered irrational when compared later against the overall policy goals.

A third significant development for exploring aspects of governance that fell short of the ideals of pure rationality is the Garbage Can Process of policy development. Michael Cohen, James March, and Johan Olsen (1972) proposed this theory to address the shortcomings of the rational model that requires that decision makers accurately define a problem, provide alternative solutions, and then select the best option. Not seeing the process happen through these rational

steps, the researchers believed that a view of “organized anarchy” would fit the process better. They believed that each decision looked not like the rational process but rather an “irrational garbage can made up of a random draw from each of the four elements (or “streams”) of decision making” (Shaw, 2007, section p. 1). These four streams swirling around were problems, solutions, opportunities, and decision makers, only coming together when timing and attention connected them (Nitta, 2007).

Transitioning from the Rationality-Irrationality Spectrum

Concepts such as bounded rationality and incrementalism appear to strive to maintain as many elements of rationality as they can while attempting to also provide minor adjustments in order to more accurately represent the realities of cognitive processes. They attempt to adhere to the notion that a person will choose the outcome with the highest utility but make allowances for the limiting influences of uncertainty, full information, or issues that require one’s attention and force choices to be made when decision inputs seem sufficient although yet not complete. To the extent that these conceptualizations attempt to exist along and within the spectrum of rationality though, they are still burdened, to some degree, with the paradigmatic shortcomings of irrationality and rationality.

It would be easy to anticipate the problems that would come with decision making models built entirely on irrational principles. They would be nonsensical, unhelpful for making predictions, and limit the potential for understanding. Given these faults, there is clear motivation to have as few aspects of irrationality in any conceptualization of decision making. This is not to say though that an attempt to present models with as many aspects of rationality as possible in them is necessarily desirable.

This undesirability arises because the limited ability for rational decision making to actually occur (Rogerson, Gottlieb, Handelsman, Knapp, & Younggren, 2011). Starting in the 1940's, researchers started to challenge the rationality assumptions of perfect information and that individuals evaluate all alternatives (Nitta, 2007). Since then, economists and psychologists have found numerous violations of rationality and systematic deviations from its central concepts in research studies, suggesting that the processes are frequently not occurring or not possible (Campitelli & Gobet, 2010, Brownstein, 2003). Because of biases and social influences, decision makers will not be purely rational, even when presented with perfect information (Frederickson, et al., 2016). Research has also shown that decision makers do not maximize utility nor follow Baye's rules of updating expectations given new information (Halpern, 1998). In general, it has been concluded that rationality "fails to accurately describe almost all actual decision making" (Nitta, 2007, section p. 5).

Despite the consideration and perceived importance of rationality and irrationality in decision making, both possess substantial flaws. Given these flaws, research on decision making is not limited to a view that only sees a continuum of rationality to irrationality. A more comprehensive and likely more accurate view on decision making takes model formulation in another direction. Understandings bubbled out from this spectrum until research went in an almost entirely new direction. This view started the concept of "nonrationality."

Nonrationality

Nonrational theories are not irrational theories. They are an assorted mix of decision making theories specifically created to account for the inadequacies of pure rationality. There is no yet universally accepted definition of nonrational theories, but there are some commonly agreed upon characteristics of them (Gigerenzer, 2001). Nonrationality is often believed to be

composed of a mix of information sources for making a decision, such as formal knowledge, techniques, patterns, and beliefs. Nonrationality typically refers to decision making elements such as intuition, judgment, quick decisions, preferences, unconscious analysis, and environmentally influenced decision making.

Theories of rationality are usually considered normative in that they are focused on finding the best strategy for an all-knowing decision maker with unlimited resources. Nonrational theories are often considered descriptive, capturing the underlying cognitive processes of a decision. There are exceptions in both directions, but nonrational theories are often focused less on the outcome than they are the process of a decision maker that has to deal with emotions, resource limitations, and temporal pressures (Gigerenzer, 2001).

Frequently, nonrational thought processes are not considered to be their own independent domain of decision making mechanisms but rather as mere blunders or inefficiencies within an otherwise purely rational analysis (Rogerson, et al., 2011). Examples of changes in such perceptions though can be seen in models such as bounded rationality and satisficing now being considered more as nonrational models than modifications of rational models (Gigerenzer, 2001). Theories like these that account for decision making contexts, perceptions, and resource limitations are better thought of as nonrational (Rogerson, et al., 2011). Nonrationality significantly separates itself from rationality in that its theories do not strive for optimization of utility nor endless search. They aim to more closely match real cognitive processes by accommodating contextual influences and limitations and by acknowledging that an optimal strategy might not even be known for the decision at hand (Gigerenzer, 2001).

One substantial real world challenge to decision making is when a decision must be addressed by more than one decision maker. Within such a challenge is the need for multiple

decision makers to see a decision, in the same way to some degree, be able to communicate various sub-elements of the overall decision, and then eventually come to some type of agreement about what strategy or approach will be taken for the decision at hand. This sort of challenge is both common and also representative of the types of decision making that occurs in governance strategies.

In theory, every individual associated with a multi-person decision making process could employ principles of rationality and then everyone could come to the same optimized conclusion. As this review of literature explores, this is not how decision making typically occurs. At an aggregate level, humans are not going around as a mob of computers calculating the best rational options and then all collectively moving towards those options like a hive mind. Instead, what nonrationality proposes is that people in a group (of any size) typically use a collective “game plan.” Cognitive and organizational psychological research refers to this “group level phenomenon” (Klimoski & Mohammed, 1994, p. 403) as a shared mental model (SMM).

Individual applications of nonrationality culminate in larger societal models of decision making through interpersonal relations. It is likely true that mental models used by society are learned by the individual so that they can participate in the larger social world of interpersonal decision making. This process likely happens through various forms of enculturation. It is assumed here that through these means, the direction of a societal thinking process is pushed down from the aggregate level to the individual. Once an individual understands through communication how others are conceptualizing the decision making process (explicitly or implicitly), the individual is able to contribute meaningfully in the decision discourse. It is for this reason that the larger structures of shared mental models will be examined first and then the review will transition down to more individualized cognitive processes.

Shared Mental Models

Mental models are necessary for a person to have in order to make most of life's decisions (World Bank, 2014). They may be applied to understandings of several different concepts (Halpern, 1998). Mental models are commonly known as “categories, concepts, identities, prototypes, stereotypes, causal narratives, and worldviews” (World Bank, 2014).

Mental models are used to form and structure all types of understandings and beliefs (Halpern, 1998) and create descriptions of those conceptualizations (Jonker, Riemsdijk, & Vermeulen, 2011). They influence the lenses a person views the world through, what gets their attention, what is considered relevant from their past, and what assumptions they default to for people or situations (World Bank, 2014). People use mental models to make sense of their world (World Bank, 2014) and then create internal representations of the external environment around themselves (Jonker, Riemsdijk, & Vermeulen, 2011).

A person's perceptual world may be able to be thought of as just a collection of various systems of information coming together in different ways that they need to process. Shared mental models help people grasp the purpose, form, workings, and behavior of these systems (Halpern, 1998). They not only help understand the current conditions but also predict future states of that system (Jonker, Riemsdijk, & Vermeulen, 2011). In addition to understanding of how systems work, mental models also help a person understand their place within that system (World Bank, 2014).

Part of understanding one's place within a system regards knowing how to react to stimuli and behave appropriately; SMM help provide this guidance (Halpern, 1998). People can have innate mental models, but most come from social influences. Mental models can even be

embedded in culture (Halpern, 1998) and handed down and transferred across different generations (World Bank, 2014). These understandings can be developed into deeply held cultural assumptions regarding “behavior, attitudes, and perception” (Halpern, 1998, p. 100).

Mental models can be either broadly shared or context-dependent, and institutions can be so closely associated with their mental models that in order to change that mental model the entire institution must be changed. Mental models make it possible for people to develop institutions, solve collective action problems, feel a sense of belonging and solidarity, or even understand one another (World Bank, 2014).

Oftentimes applied to research on teams, Cannon-Bowers & Salas (2001) describe SMM’s in part as “knowledge structures...that enable them to form accurate explanations and expectations...” (p. 228). Work groups share mental models across themselves, and those models help them to coordinate efforts, make predictions of how one another will react, and adapt their behavior as necessary. The more one understands a SMM, the more interactions and interpersonal efforts can be predicted (Jonker, Riemsdijk, & Vermeulen, 2011).

Accurate mental models can be quite helpful to a person (World Bank, 2014), but sometimes mental models can oversimplify a view of a system and overlook the necessary complexities or depth of a system (Halpern, 1998). In these situations, the mental model can negatively influence a decision maker’s ability to incorporate new information and create incorrect assumptions where otherwise meaningful information is missing (World Bank, 2014). A person’s ability to correctly form a mental model can be challenged by cultural background, social context, illusions, incorrect estimations, and limited cognitive abilities to process all available information. Minor misunderstandings aggregated across groups that gain momentum

can develop into SMMs that are really just “shared ways of misperceiving the world” (Halpern, 1998, p. 225).

Robustness Through Simplicity

A person’s limited abilities of observation and cognitive processing can easily be overwhelmed by all of the potentially relevant inputs that a situation could present (World Bank, 2014). With all the possible avenues of information that could be determined as useful by an individual or by a group with a shared mental model, one can quickly see how information overload could occur. Decisions using large amounts of information or potential choices are challenging (Fukukura, Gerguson, & Fujita, 2013), and information overload occurs at the point where a decision becomes less able to be made with each additional aspect of information included. Information overload can lead to many negative outcomes. “When people are confronted with too much information that they must use to make a decision, they can experience information overload, which increases confusion (Lee & Lee, 2004; Malhotra, 1982; Schick, Gordon, & Haka, 1990), creates paralysis and delay of decision making (Bawden, 2001; Schick et al. 1990), decreases motivation (Baldacchino, Armistead, & Parker, 2002), and ultimately decreases satisfaction (Jacoby, 1984; Lee & Lee, 2004)” (Fukukura, Gerguson, & Fujita, 2013, p. 658).

Abstract thinking can allow people to focus on core aspects of a decision instead of being distracted by secondary aspects. It can be helpful to become more abstract and/or gain psychological distance (perceived involvement), temporal distance (time from situation), or spatial distance (physical distance between events), in order to deal with information overload (Fukukura, Gerguson, & Fujita, 2013). Only information that can be used is helpful. Simpler,

less complicated information is more able to be used for making decisions. Trying to create more useful information by creating psychological distance causes information to be organized by its “gist,” and gist is similar to the concept of chunking (Fukukura, Gerguson, & Fujita, 2013; Henderson, 2006; Wakslak, Trope, Liberman, & Alony, 2006). “Chunking” is a common technique for making information simpler in an instrumental manner. Chunking is the process of combining pieces of information into groups so that there are less overall discrete elements of information to have to manage and more overall information can be remembered and worked with (Miller, 1956). Chunks of information can even be grouped into templates that can be stored in long term memory and contain a broader range of information (Gobet & Simon, 1996).

Breaking larger and more complex information down into smaller, more manageable components can help people more easily deal with the challenges associated with making certain decisions. The simpler large sets of information can be made, the more readily and widely they can be applied. This implies that the simplified form a mental model takes on compared to a fully rational model helps make it more useful in more potential applications. Armed with the ability to broadly apply chunks of information, it becomes easier to form any strategies necessary for solving otherwise complex decisions, such as the types of decisions necessary for certain aspects of governance. The process of chunking information in order to apply it strategically in decision making is, in effect, the use of a “heuristic.”

Heuristics & Biases

Simon’s (1947) challenges to purely rational models of decision making inspired the work of others. The most significant of these developments was the creation of “biased rationality” by Tversky and Kahneman in the 1970’s (Campitelli & Gobet, 2010; McKenzie, 2005). Tversky and Kahneman have worked together to produce a great deal of research

assessing decision making (e.g., Kahneman & Tversky, 1972, -73, -79, -82a, -82b, & -84; Tversky & Kahneman, 1971, -73, -74, -80, -81, -82, -83, & -91). Their research showed empirically that people systematically deviate from predictions of rationality that anticipate maximization strategies. They showed that the judgment of real people was not a modified version of rationality (Campitelli & Gobet, 2010). As a substitute, Tversky and Kahneman (1974) proposed an emphasis on heuristics.

Heuristics are methods for solving problems that allow a person to avoid dealing with complicated calculations and probability estimation. They do this by substituting rules of thumb and approximate representations (Campitelli & Gobet, 2010; McKenzie, 2005; Rogerson, et al., 2011). Decisions that would be very difficult to solve using purely rational means become much easier when a person uses cognitive shortcuts in order to get to a workable conclusion. In challenging decisions, a person will sort for characteristics that offer simpler information to work with than more difficult information. This implies that they try to find and employ the simplest heuristic necessary in order to use the least amount of cognitive resources required for a decision (Rogerson, et al., 2011). A form of this type of decision making might be in the way that single-issue voters select a politician based on just one criterion opposed to the full range of criteria they might otherwise prefer to evaluate elected officials by.

Tversky and Kahneman (1974) proposed three heuristics that help people simplify the decision making aspects of estimating probabilities and frequencies (McKenzie, 2005). The first, “representativeness heuristic,” is where people make assumptions that the outcome of the present situation will match situations with similar characteristics, features, and processes. The second, “availability heuristic,” is where people make estimations of outcomes based on examples that more immediately and prominently come to mind. The third heuristic proposed, “anchoring and

adjustment heuristic,” is where people use estimations they are familiar with and then move estimations of the current situation relative to that originally referenced starting point.

The selection of heuristic is applied in regards to its fit with the characteristics of the situation and the information available to the decision maker (Campitelli & Gobet, 2010). The expectations for the use of heuristics can be learned from societal influences and shared mental models in that people can have expectations for others to think in a similar manner. People can communicate or act while assuming that others are using the same heuristics as they are and cause mistakes and misunderstandings (Halpern, 1998). For instance, if the constituents of a policy maker have a different heuristic for evaluating fairness, a taxation strategy perceived as fair by the policy maker could be implemented and then viewed as unfair by the constituents.

The tradeoff to being able to compress large amounts of information and create mental shortcuts is a loss of the ability to sufficiently prescreen for what information may be valid to include in the analysis. Having too much information affects ability of a decision maker to find the most important information, and condensing information causes it to be filtered, (Kettl, 2018). With heuristics, there can be a loss of the ability to avoid prejudging what information is evaluated. The result of this compression and categorical structuring is known as a bias. Therefore, heuristics can lead to systematic bias (Campitelli & Gobet, 2010; McKenzie, 2005). Rogerson, et al. (2011) discuss an example of such bias in that “the availability heuristic permits people to approximate frequency on the basis of how easily the target comes to mind, but more memorable events are not necessarily more frequent” (p. 617). The various efforts of Tversky and Kahneman identified a dozen such biases (Campitelli & Gobet, 2010). This bias can occur during decision making or even occur as “biased predecision processing” where only certain

information is being searched for while other applicable information is ignored or where one alternative is favored from the outset (Brownstein, 2003).

It is widely accepted that decision makers frequently use heuristics, but there are criticisms of heuristics as we know them (Hogarth & Karelaia, 2007). Heuristics can often be too vague in explaining a process (Campitelli & Gobet, 2010), and they can also lack the specificity needed for selecting or using a particular heuristic (Gigerenzer & Murray, 1987; McKenzie, 2005). Moreover, there are criticisms regarding the characterization of cognitive performance that comes with the heuristics paradigm (Cohen, 1981; Einhorn & Hogarth, 1981; Hogarth, 1981; Jungermann, 1983; Lopes, 1982; Phillips, 1983) (McKenzie, 2005).

Finally, the heuristics-and-biases paradigm can fail to properly account for environmental influences (McKenzie, 2005). This is important to get right as properly capitalizing on the structure of environments is what allows heuristics to be accurate, cognitively cost-effective, and simple. When a heuristic matches well with the structure of the environment, it is referred to as being “ecologically rational.” A heuristic that has ecological rationality is thus domain specific (Gigerenzer, 2001), meaning that it is adapted for the environment for which it is applied. Therefore, an accurate depiction of a shared mental model and the heuristics used within it should appropriately account for environmental influences.

Environmental Influences

Typical normative research, usually focusing on utility, isolates decision making from social context (Halpern, 1998). Simon (1947) disagreed with this approach and believed that characteristics of the environment needed to be included alongside evaluations of the cognitive system, but Tversky and Kahneman overlooked the importance of environmental influences in

their early work on heuristics (Hogarth & Karelaia, 2007). Heuristics can be studied in a controlled research setting like rational models, but ignoring environmental influences can lead to misleading conclusions. Numerous psychological studies have analyzed the influence of conditions on decision making (Mendoza & Gutierrez-Pena, 2010), and it has been found that heuristics interact with the environment and are condition dependent (Hogarth & Karelaia, 2007; McKenzie, 2005).

Research using a paradigm of rationality has often viewed people's actions as irrational when what was really happening was that people were altering their behavior to match their environment (Campitelli & Gobet, 2010). Goldstein and Gigerenzer (2002) identified the characteristic of heuristics as being "fast and frugal," which is where resource limitations and changing environmental conditions cause people to develop approaches that are not irrational but instead rather fitting for situational pressures. Two categories of behavior have been developed from these understandings: adaptable and adaptive behavior (Klayman & Brown, 1993; McKenzie & Mikkelsen, 2000). Adaptive behavior is where views thought to be irrational are actually decision processes tailored made for the environment. Adaptable decision making is exhibited when a person, who identified some type of assumption that was fitting for heuristics of a prior environment, determines that this assumption is now inappropriate for the changed conditions and makes adjustments as needed (McKenzie, 2005).

Identifying the appropriate processes is an important component to decision making. "According to the logic of appropriateness, individuals consider their situation, evaluate their role in that situation, weigh actions according to which is most appropriate, and finally do what is appropriate. Rational decision making assumes that individuals will act to maximize their preferences and engage in self-interested behavior, but the logic of appropriateness assumes that

individuals will conform to external rules—norms, routines, procedures, and roles—often without consciously realizing they are making a decision” (Nitta, 2007, p. 4). This concept of appropriateness can have important influences on the decision making processes related to governance.

A shared mental model concerning governance would be expected to use heuristics that get their form and structure from what is deemed appropriate for that environment. It is assumed here that what is appropriate for the governance decision making environment is determined primarily by the actors participating in that environment. Although people typically let their social and cultural context influence alternatives they select (Halpern, 1998) – a top down approach supporting the notion that people conform to an overall shared mental model, it is also known that “Individual-level decision making provides the microfoundations for organizational behavior and national policy” (Nitta, 2007, section p. 1). Therefore, it is assumed that the actors participating in this decision making structure would be important environmental influencers.

How a governance decision is implemented can be influenced by various actors (Nyhlen & Liden, 2011). The policy model proposed by Kingdon (1995) supports this view by emphasizing the role of policy entrepreneurs taken on by individual actors (Shaw, 2007). Individual actors may be politicians or civil servants, but they may also be governing structures or different interest groups. The processes of governance has “blurred the distinction between different actors” (p. 5), and their “spatial meaningful origins” (p. 8) may be their only meaningful distinction (Nyhlen & Liden, 2011). Anderson (2012) developed a matrix model with these types of spatial origins for describing choice related to governance. One of the dimensions within this typology specified a continuum of state institutions and the government on one end to society and the general population on the other.

One noteworthy way in which actors within a governance decision making model differ may be in the manner in which they perceive and structure problems. Problem structure is “a theoretical construct used to explain how one or more individuals understand an issue; it is composed of a starting state and a finishing state [...] a well-structured problem is one where actors seeking a solution are in agreement on the constraints, the starting point, finishing point, and the steps necessary to progress from one to the other” (Zwald, 2007, section p. 1). For complex problem structures, people generally attempt to break the problem down into more manageable subdecisions with more comprehensible pieces (Mintzberg, Raisinghani, & Theoret, 1976). As a problem moves farther away from being well-structured and is not merely complex, it becomes “ill-structured” or a “fuzzy problem” (Zwald, 2007). In these situations, “one or more constraints are vaguely defined or unknown by the actors seeking a solution [...] The process transforming an ill-structured or fuzzy problem into a well-structured problem is a combination of cognitive functions and social interaction [...] ultimately, a well-structured problem is the result of social contestation among multiple cognitively limited perceptions of the problem constraints” (Zwald, 2007, section p. 1).

“Social contestation among multiple cognitively limited perceptions” appears to indicate that how decision makers structure a problem is related to the perspective with which they approach the decision. It also appears to indicate that a problem can be structured more accurately and meaningfully if it includes competing perspectives. In a SMM for governance, there could be as many perspectives as there are people in the society. *How these actors structure and view decisions within a SMM is likely to coalesce on an aggregate level into a limited number of perspectives.* This may be necessary if for no other reason than for communication, but it may also occur for some principle-anchored reason. Accessing such

common perspectives is likely to help produce interpersonal understanding and agreement. In the world of governance, perspectives are expected to be a product of the frame of view used and the information judged to be relevant. These perspectives are also expected to be indicative of people's perceptions and preferences for the role and purpose of government.

Perspectives, Schemata, & Preferences

Decision makers may be very selective in determining what information to include in their cognitive processes. Selective information search has frequently been found to be related to the biased processes of heuristics (Brownstein, 2003). People may selectively seek certain information because they are motivated towards finding supporting evidence for a particular belief (Kunda, 1990), and at any time during a decision they may engage in information editing (Brownstein, 2003). Information editing here may refer to the process of viewing only certain input information as relevant or modifying the understanding of information so as to make it fit a preconceived perception.

When decision makers settle on the information that they want to give their attention to, they often attempt to help themselves be more confident in their selection of information and thus the alternative the information leads them towards. People want to have a sense of certainty in their choices (Mills, 1968). To do this, they often try to select choices that are justified and supported (Bettman, Luce, & Payne, 1998), and this may mean selecting the alternatives that are the easiest to find reasons for justifying (Shafir, Simonson, & Tversky, 1993). Decision makers frequently try to find an option that ranks the highest in their primary goal dimensions, a "dominant alternative" (Mintzberg, Raisinghani, & Theoret, 1976). Montgomery & Willen

(1999) believed that a search for such dominance in alternatives, otherwise known as “dominance structuring,” is at the foundation of decision making processes.

An important part of dominance structuring is “bolstering.” In bolstering, one alternative has its positive aspects amplified and its negative aspects deemphasized, and the other alternatives receive the opposite treatment. This creates perceived separation between the evaluation of the choices and helps create a sense of certainty (Brownstein, 2003). Perspectives that form from selective information editing and bolstering of a choice are related to (and build up to) a specific lens for viewing decisions. Together this process develops a cognitive framework for a decision maker’s world. This unique lens for viewing available information is called a schema. A schema is a perspective that is used to structure the information specific to an environment.

Starting with the works of Plato and Aristotle (Marshall, 1995), the concept of schemata first became common in research through Kant (1929) and Bartlett (1932) (Johnson, 1987). Kant (1929) described schemata as the lenses through which one interprets the world around them. Piaget (1952) also used the concept of schemata in his work on the cognitive development of children. Work on schemata developed most in the 1970’s to become the concept it is now known (Beals, 1998) – a way of filtering the information in the world around us.

Schemata are "data structures for representing the generic concepts stored in memory. They exist for generalized concepts underlying objects, situations, events, sequences of events, actions, and sequences of actions" (Rumelhart & Ortony, 1977, p. 101). Schemata help people put information together into categories and form some type of organized framework so that they can understand what they perceive (Lord and Maher, 1991; Poole et al., 1990). They provide a decision maker with a particular pathway for interpreting information and determining how to

proceed. Schemata operate as patterns for organizing information nearly effortlessly, help integrate new perceptions into a cognitive structure that can be understood, and generally enable people grasp the world around themselves (Anderson, 1990; Brewer & Nakamura, 1984; McVee, Dunsmore, & Gavelek, 2005). Schemata are cognitive structures for combining attributes and interpreting some aspect of the world, such as archetypes, stereotypes, or worldviews (Anderson, 1990). Given their broad nature, their structures must be loosely classified (Kintsch, 1998).

To quickly and easily organize information with little expenditure of cognitive resources, perception may be forced into one path of understanding. Again, this becomes a schematic lens through which people see the world. *Schemata are similar to heuristics in this sense in that they avert a full rational analysis of information in order to expedite decision making.* They are biased in that they show partiality by sorting the relevant from the irrelevant information. On the other hand, schemata are not mechanisms for making decisions like heuristics, and they are not used for evaluating alternatives. Schemata do not result in decisions being made. In schemata, information deemed useful is merely screened for and processed. Once processed, the information can be used for making a decision, but the inputs to that decision making process are limited to what is offered from the employed schemata.

Schemata have a number of features and functions. They use variables, can be embedded within one another, operate at all levels of abstraction, and “represent knowledge rather than definitions” (Rumelhart, 1984, p. 169). At times, multiple schemata can be applied simultaneously to a situation, and they can conflict with one another (Anderson, 1990). Use of schemata may be affected by environmental influences. Culture, as an aspect of environmental and contextual influence, can determine the application of schemata (McVee, Dunsmore, & Gavelek, 2005). Therefore, schemata can even be viewed as cultural constructs that establish

societal patterns and can help people interact with one another (Bartlett, 1932, 1995; Middleton & Crook, 1996; Saito, 1996, 2000).

The Nonrational SMM of Governance

The ability for people to be able to interact with one another is important in decision making that affects multiple people. In order to do this, there may be a need for a limited number of options for everyone involved to communicate about. This assumption is supported by the work of Gigerenzer (1996a, b) that proposed that people use the minimum number of attributes possible when considering a choice. It is believed in this work that this type of simplification also occurs in governance decision making. If true, this means that the schemata relating to governance would be confined to a limited number of basic notions within a societal SMM.

Given the nature of choice of societal direction that comes as a result of a governance decision, the schemata associated with personal preference for governance outcomes are likely connected to subjective reasoning. This assumption would be supported in part by the work of Rogerson, Gottlieb, Handelsman, Knapp, and Younggren, (2011) that showed that people often use subjective reasons for justifying the decisions they make.

Since the choices made for governance can be quite complex, any subjective reasoning for a particular decision must be able to account for such necessary complexity. If governance decisions are not believed to be constructed in a truly rational sense, then these decisions are probably formed from some other, nonrational root. Being nonrational in a unique way is misunderstood socially (Halpern, 1998), so in order to communicate well, a person must likely use *a standardized process of nonrational decision making*. To find the likely nonrational foundation of such decisions is to find a concept that can communicate the requirements of a

decision preference for governance. Such requirements would likely be the ability to address the topic areas for governance activities, provide simplicity for dealing with multifaceted decisions, and have universally comprehensible features.

Values can encompass a broad range of governance concepts in simple terms and provide conceptual flexibility across several domains of discussion. Values would allow otherwise difficult attempts at rational analysis to be exchanged for people's principles or judgments about what is important. For any given individual, value preferences may be an important subjective determinant to governance decisions. The use of preferred values for making governance decision may also support the notion that information editing is commonly used and can be a necessary prerequisite for communication within a SMM consisting of numerous participants.

It is for these reasons that this work makes the proposition that any SMM for governance decision making likely has the use of values at its base. It is, however, an entirely different level of conceptual development to propose which values are used, how they are employed, how those values play into the schematic and heuristic structures of nonrational thinking, and the implications of those values in the formation of governance decision making. This level of conceptual advancement would require the creation of a theoretical model for governance decision making. *Proposing what this theoretical model may look like is thus the objective of this work.* In the development of the model, questions over which governance values should be used, and in which way, will be explored and addressed.

As stated before, this type of focus represents a type of continuation of the work of Simon (1947). Simon believed that the world of public administration is one of decisions, and he believed that any science of administration should focus on analyzing decisions and particularly the nonrational aspects of those decisions. For the field of Public Policy and Administration to be

more scientific, it must develop various principles of science. This is to say that it should develop structured knowledge, operationalized terms, verifiable explanations, and understandings from which predictions can be made. Allowing governance decision making to be left unexplored and disregarded as the unknowable process hidden within the realm of cognition prevents the field from developing a more scientific understanding of governance. The push for a focus on decision making and the use of scientific approaches for Public Policy and Administration could be traced to the views of Simon. This work looks to heed his requests.

Although Simon may have eschewed the influencing power of personal values in administrative work, he was well aware of the nonrational forms of thought and what influences those processes can have. Even though governance values will be explored and assumed to play an important role in the development of a governance SMM, it is hoped that Simon would support such an inclusion of values. This would be because this inclusion of values is intended to lead to a more scientific understanding of the Public Administration-related decision making processes that occur and would not inherently undermine the potential for professionalism in public administrators. Simon believed in the influence of the environment on cognitive processes, that more developed decisions can come from those with expertise, that decision makers operate with methods far different from those of a fully rational figure, and that templates of thought can be used as shortcuts to get around otherwise incredibly complex decision problems. This work builds off of those beliefs by Simon by using them as guiding principles for how to construct a decision making model for the realm of governance.

Again, there is no model for governance decision making, despite the immense importance and place of the concept of governance to numerous aspects of civilization and the virtually immeasurable impact governance decisions can make. It is proposed here that this lack

of a model of decision making in governance is because it is anchored in and based off of a concept (values) that may be difficult to impossible for common decision making models to work with. This difficulty may be because of their reliance on pure rationality and the ability to apply weights to alternatives within a decision. For the complex process of governance, society may need a SMM with some simple rules of DM, and with preferences (of values) that come from nature and nurture. The goal of a theory that models decision making in governance would be to develop heuristics that fit the structure of the information relevant to the environment as well as include schemata for how that relevant information is sorted.

Chapter Summary and Looking Ahead

This chapter explored the literature relevant to governance and decision making. The information covered the connections between the nonrational practices of schemas, heuristics, and shared mental models. The goal of the next chapter will be to explicate the methodology that is used to derive and then develop the theoretical insights presented in this work.

CHAPTER III

METHODOLOGY

Research Approach

Kettl (2018) presented four different possible approaches to decision making. Yet, Kettl also stated that persistent challenges exist when it comes to a comprehensive, accurate, and agreed upon understanding of decision making. This deficiency for decision making appears to be particularly true when specifically evaluating the status of structured knowledge regarding the context of governance. None of those four approaches presented by Kettl sufficiently and independently explain governance decision making, and there is little advice for how to integrate the approaches or reconcile discrepancies. This leaves one to reexamine other decision making research for clues on how to best resolve this inadequacy. Doing just that and using what is known regarding the cognitive processes associated with a person making a choice, the previous literature review indicates the need to develop a nonrational, shared mental model in order to more accurately explain the governance decision making process. To move towards that goal, the central question of this research becomes: How are governance decisions formulated?

This research question is motivated by the search for a shared conceptualization, framework, and form of communication by people on matters of governance. As a result of this focus, the unit of analysis is the individual decision maker. Since this investigation looks to break into a new area of understanding, it is believed that such a research question can only be exploratory and offer suggestions, not confirmatory. It cannot yet argue for proof or support on any level. This interpretation of the current stage of understanding for that concept motivates the research design. The research design will look to emphasize a theory development methodology and, in doing so, create a model to represent individual decision making specifically for the

domain of governance choices. Ideally, a mental model will be created with the flexibility to account for a wide variety of types of governance decisions, albeit likely at a foundational level of processing.

Methodology

To answer the main research question is to develop a mental model for governance. So what would a model like this look like? It should be able to account for a variety of perspectives and encompass a variety of families of thought. It should be able to account for how people predisposed to one outlook on things may have difficulty conceptualizing other approaches to governance, yet the model should also be flexible enough to account for decision-making processes that are more blended or hybrid in nature. The model should identify the particular cognitive anchor points unique to this context of decision-making, yet it should also be structured similarly to other models of decision-making in that complex groupings of information are chunked together in order to expedite outcomes and preserve resources.

It is the goal of this research to produce such a model. The creation of a theoretical model requires a methodology tailored towards that process. Any discussion of methodology should cover the practices and procedures necessary for a particular inquiry. A research question such as the one that is the focus of this work does not lend itself to the typical inductive or deductive methods for reasoning but rather relies on abductive logic, where inferential leaps can be made in order to link concepts in the most parsimonious manner.

Given the needs of this inquiry, the process of abductive logic will be used here to deconstruct governance thought processes down into their primary drivers in order to identify the schematic and heuristic elements of a nonrational model. This will be done, as Paavola (2014)

described, by modifying and combining different aspects of previous knowledge. Specifically, a model will be derived by examining the values, societal anchors, motivations, and outcome goals associated with governance decisions. From these sources, an explanatory theory for governance decisions with the most plausible account of the processes involved that can be developed will be presented. The construction of this explanation will look to economically address relevant facts, be able to be scientifically challenged, outperform the existing rival conceptualizations, and relate well to other realms of understanding.

The result of these efforts will be to create a piece of theoretical research through a post-positivist approach. If sufficiently created, the model might yield a meaningful theoretical contribution to the fields of Public Administration and Public Policy. Such a model could also form the foundations that many other types of analyses could be created from. If this model helps provide a better understanding of the decision making processes within matters of governance, this knowledge could potentially help create government environments more conducive to the desires and needs of people.

The Development of Theoretical Models

Generally, research is oriented towards either a deductive or an inductive approach. In deductive approaches, the processes are often considered top-down. An idea comes from the creation of a hypothesis, and observations confirm (or fail to disprove) the hypothesis. Conclusions follow logically from facts with deductive methodologies (Douven, 2017). This means that the hypothesis must be explained by the theoretical assumptions presented a priori in the premises. The hypothesis cannot contain any new information (Copi, 1961; Copi & Burgess-Jackson, 1995).

Conversely, inductive approaches are often thought of as bottom-up processes. In this sense, specific observations are built up to be representative of more overarching generalizations. Induction tries to use past experience to make future predictions. Patterns in observations form the foundations for hypotheses, and these hypotheses develop into theories that are believed to possess the capacity to be more widely applied than to merely the few observations originally analyzed. Aspects of samples of a population are used to make educated guesses about the whole population. This means that the inductive process brings with it a bit of uncertainty given the reliance on the generalizability of characteristics and sequence of events obtained from the limited set of observations. To manage this uncertainty, probability estimates are used to gauge the confidence that one can expect to witness a phenomena being repeated throughout the population (Copi, 1961; Douven, 2017).

Deduction and induction differ mainly in the types of inferences drawn from each method. Deductive inferences are considered to be “necessary.” This means that an inference must be true if the premises that the conclusion is built upon are true. The other class of inferences is those that are “non-necessary,” where the truth of premises may not guarantee the accuracy of the conclusion. The fascinating aspect of these types of inferences is that they can not only include the inductive approach, but also a seldom acknowledged approach known as “abduction” (Douven, 2011). Abduction is a form of reasoning used for theory development, where the use of non-necessary inferences opens the door for the creation of new ideas.

Induction and abduction are more similar to one another than either is to deduction. They are so similar that people may believe they are making inductive inferences when they are, in fact, actually engaging in an abductive approach. This may be because, unlike deduction, both induction and abduction are “ampliative” in that they extend or add to what is already known.

Ampliative implies that the inferences drawn can exceed what is logically contained in the premises. However, there is a distinct difference between induction and abduction. Induction is based on observed frequencies, particular features within a population, or some statistical data. On the other hand, in abduction the value of explanatory considerations outweighs the need to require grounding inferences in known statistical information. Despite these lax logical rules, abduction can still be a reliable method for identifying true conclusions, especially if the premises are valid (Douven, 2017). It is for all of these reasons that the process of abduction is ideal for use when trying to develop a theoretical model of some concept.

Exploring Abduction

An example of abduction may be shown through the inference drawn from a simple scenario. Imagine that you have a house with a porch, and on that porch is a lightweight, plastic lawn chair. As you are going to bed one night, you notice that it is extremely windy outside. The next morning, you notice that the plastic lawn chair is knocked over on its side. It might be possible that a neighbor's pet went up onto your porch and pushed the chair over as it went by, it might be that the chair was used by a neighbor and put back incorrectly, it might be that the whole porch tilted all on its own, tipping the chair over. Most likely though, the chair was blown over by the high winds during the night, and most people would come to that same conclusion.

The inclination for a person to choose this explanation is not an inference drawn from the inductive or deductive methods but rather the abductive approach. Deduction would require far greater certainty in the premises to come to a conclusion about the wind knocking down the chair. Induction would require knowing past examples of the wind knocking down the chair and then draw conclusions about how likely it will be that the chair will be knocked down again in

the future when those conditions exist again. Abduction allows a strong theory for why the chair was knocked down without the benefits of premise certainty or ample past examples to predict from. Situations like this example would be connected to the development of any (best) explanation for why or how something happens.

It may be helpful to think of a theory as a form of an explanation. Regrettably, theory development is really only given superficial attention with inductive and deductive approaches. As Haig (2005) stated, “The standard inductive and hypothetico-deductive views of scientific method give little attention to the process of theory development. The use of traditional inductive method leads to theories that are organized summaries of their constituent empirical generalizations, and the orthodox hypothetico-deductive method assumes that hypotheses and theories emerge fully formed, ready for immediate testing” (p. 379). Induction’s ability to develop theory relies on existing trends that, in a sense, help point the theory’s construction in the correct direction, and deduction’s ability to do so depends on an existing path that merely needs to find support indicating that it is right theoretical road to be on. When relying on just induction and deduction, a void exists in being able to create theory without preexisting support or guarantees. Abduction, by connecting the dots between pieces of evidence, fills the void for theory development as it reveals a path when no theoretical roadmap otherwise existed. Abduction’s place in research has though not been as prominent as deductive and inductive methods. This is somewhat surprising given the amount of time that abduction has been a known form of reasoning.

The abductive process was first significantly described by Julius Pacius in 1597, but it was not until Charles Peirce described it as a way to infer that extended knowledge that abduction was able to be widely identified as a distinct form of logical reasoning (Reichertz,

2004). In his work on the logic of science, Peirce (1931) presented abduction as a method for inferences that offer special explanatory considerations, sometimes being called the “Inference to the Best Explanation.” Peirce viewed the hypotheses developed from abductive methods as the only analytical operation that produces novel concepts. He believed that the place of abductive inferences would be in the process of discovery, where theories are developed and evaluated in a later stage of inquiry by either deductive or inductive assessments (Douven, 2017). The term abduction is now often used in research to draw attention to new discoveries (Reichertz, 2010).

Some modern views on abduction see it as a tool for assessing theories, but Peirce saw it as the earlier stage of discovery that was for generating theories (Douven, 2017). It is a logical inference that produces new knowledge by extending into the “realm of profound insight” (Reichertz, 2010, p. 300). In doing so, abduction addresses both practical reasoning and scientific inquiry (Sveneveg, 1997). The goal of abduction is explanation (Hoffman, 2010). It focuses more on explaining the state of events than from using evidence from established premises. Abduction is a search strategy for the explanation that can be tested later (Douven, 2017).

Abduction creates hypotheses by making inferences from puzzling facts (Haig, 2005). It is a mental leap that brings together concepts which might have never been connected before. It “proceeds,’ therefore, from a known quantity (= result) to two unknowns (= rule and case)” (Reichertz, 2004, p. 304). When there is no appropriate explanation or rule for some combination of features of a thing, there is surprise. This surprise leads to a need for a new explanation. This explanation must be discovered or invented. That intellectual effort is abduction, and it can happen in an instant. It allows for the conventional view of things to be discarded for some

creative new type of view (Reichert, 2010). These new views can be labeled as explanatory hypotheses (Douven, 2017).

Observations, in the form of facts, lead to a hypothesis which leads to a rule that will account for the observations (Svennevig, 1997). When a particular situation is paired with a general rule for how something happens, a result can be inferred (Svennevig, 1997). “An order, or a rule, in this procedure must therefore first be discovered or invented – and this has to happen with the aid of intellectual effort. Something unintelligible is discovered in the data, and on the basis of the mental design of a new rule the rule is discovered or invented and, at the same time, it also becomes clear what the case is. The logical form of this operation is that of abduction. Here one has decided (with whatever degree of awareness and for whatever reasons) no longer to adhere to the conventional view of things” (Reichert, 2004, p. 304). We create rules to regain the control that was lost by surprising facts (Reichert, 2010).

The real process of abduction is not usually as simple as the typical explanation where one anomalous fact leads to a hypothesis. Abduction typically includes sorting out numerous possibly relevant clues in order to develop patterns that might lead to a viable hypothesis for explanation (Paavola, 2014). Abduction seeks not just any new order but one for best characterizing and addressing the observations at hand (Reichert, 2004). An abductively discovered order does not have to exactly mirror reality. Its goal is to be a mental construct that sufficiently helps to manage reality in an orderly fashion (Reichert, 2010). In doing this, the focus is not necessarily in creating what is preferred or explicitly known already to be valid. Instead, the focus of an abductively-derived conceptualization is its usability and helpfulness in completing some task (Reichert, 2004). This search for explanation causes conceptual

frameworks to evolve and uses observations to develop categories (Paavola, 2014). These categories often form for our beliefs and our degrees of belief about a thing (Douven, 2017).

Patterns of data and presented information are critical for abductive reasoning. It is, however, more accurate to state that abduction is not looking to structure data and draw predictions as it is trying to describe a phenomenon. Phenomena are usually unobservable abstractions supported by facts (Haig, 2005). Phenomena can take a variety of forms including “objects, states, process, events, and other features that are hard to classify” (Haig, 2005, p. 374). Phenomena are different from data. Data are the end result of many factors interacting within specific contexts. Phenomena are more stable as they come from only a few causal factors. The function of data is to indicate that phenomena occur. The goal of theories is not to explain data as much as it is to grasp an understanding of phenomena. Said another way, theories describe phenomena and data represent evidence to support the description of the phenomena in question (Haig, 2005). Although the main focus of abduction is to understand the meaning of a phenomenon (Olsen, 2004), the main purpose of phenomena is not to test of the predictability of theories as much as to be a reason why something happens the way it does (Haig, 2005). This means that in abductive logic’s pursuit to understand a phenomenon, it inherently produces the theory that gives form to the phenomenon. To understand phenomena is to investigate and explain the world and that, arguably, is the purpose of scientific discovery.

Scientific Discovery

Inductive and deductive research constructs and uses theories that are tools for describing, ordering, and predicting empirical relationships. These types of theories explain the relationships of data, but they do not explain the causal mechanisms of the phenomena they are

studying (Haig, 2005). The understanding of a phenomenon comes through an abductive insight. An abductive insight is where an explanatory hypothesis fits into or creates a belief system because it satisfies the conditions that (1) what was come up with was acceptable, (2) the system adequately addresses some phenomenon, & (3) the system is connected to the phenomenon because it sufficiently describes it (Hoffman, 2010). As stated before, the process of abduction is for theory generation. Some view the construction of theories in inductive and deductive research as having been created without the use of any particular methodology, but abduction can be a specific methodology used for theory creation. With the use of abduction, theory construction can go through the phases of theory generation, then theory development, and then theory appraisal (Haig, 2005).

These three phases are related to the three forms of logical argument discussed here - abduction, deduction, and induction. Peirce created a three-stage process of scientific discovery that progressed from abduction to deduction to induction. In the first stage, a hypothesis is created through abduction. In the second stage, deduction is used derive predictions. In the third stage, induction is used to verify the assumptions by searching for facts. Peirce believed that whenever the process did not yield sufficiently fitting facts, the cycle was to be repeated until it did (Reichertz, 2004).

Abduction does not start from nothing but “modifies and combines several elements of previous knowledge” (Paavola, 2014, pg 8). The abductive process asks the theorist to analyze what they see and not merely what they hope or expect to see (James, 1989). The abductive phase temporarily accepts a hypothesis, the deductive phase identifies the likely and necessary experimental outcomes, and the inductive phase evaluates the plausibility of the abductively

derived hypothesis (Svnevig, 1997). The deductive and inductive processes are used to clarify and test the hypotheses that the abductive process provided (Paavola, 2014).

Many important discoveries in science were made through the abductive approach, where the inferences required to move ideas forward could not come from inductive or deductive methods. With abduction, understanding the causal mechanisms of theories is done through using the known nature of things to explain the unknown the nature of things. Some prominent examples are the discoveries of the planet Neptune, the electron, the molecular formation of gases, the functions of genes, the different types of personalities, and the process of natural selection. Inductive and deductive methods were later used to assess these discoveries, but the initial conceptual leap was created through abductive reasoning. Most psychologists and philosophers concur that abduction is the cornerstone of scientific reasoning and methodology but also quite common in everyday reasoning (Douven, 2017; Haig, 2005). Abduction is considered to be the most common form of reasoning for medical diagnoses by physicians when evaluating the symptoms of a patient (Josephson & Josephson, 1994). One statistical test that is sometimes considered to be a form of abduction and is frequently used in the behavioral sciences is that of exploratory factor analysis (Haig, 2005).

Evaluating Abduction

Backing for abduction can actually come from inductive logic. This is because each successive positive application of abductive methodology presents support for proponents' views on the inferential logic (Douven, 2017). The more times there are success stories for abduction, the more reliable the approach is viewed as being. This use of the past to predict the future would be inductive reasoning, and supporters of abduction can point to past accomplishments as to why

the approach is a worthy path. Despite the many positive examples of the use of abductive logic available, the process has three significant criticisms.

The first criticism is that if the abductively derived logic leads one to accept a falsehood, there is no clear limit on how long that error can exist until it is caught and fixed (Douven, 2017). Misperceptions can endure until substantial deductive and inductive insights rectify the incorrect view. A second criticism of abduction is that the near instantaneous nature of the thought process of an inferential leap can lack the rigor helpful in preventing the theories from quickly creating a very incorrect perception and becoming cemented in that way of thinking (Paavola, 2014). A wrong step through abduction can quickly throw a thought process very far off course, and other logical processes may be more deliberate and safer.

The third major criticism of abduction is related to the perceived potential for the process to lead to circular logic. As Douven (2017) said, “critics have accused this argument of being circular [...However, there is a] distinction between premise-circularity and rule-circularity. An argument is premise-circular if its conclusion is amongst its premises. A rule-circular argument, by contrast, is an argument of which the conclusion asserts something about an inferential rule that is used in the very same argument....rule-circular arguments, Psillos [Stathis Psillos (1999, Ch. 4)] contends, need not be viciously circular (even though a premise-circular argument is always viciously circular). To be more precise, in his view, an argument for the reliability of a given rule R that essentially relies on R as an inferential principle is not vicious, provided that the use of R does not guarantee a positive conclusion about R's reliability...granting the use of abduction does nothing to ensure that the best explanation of the success of scientific methodology is the approximate truth of the relevant background theories” (section 3.2).

Given these legitimate criticisms, the credibility of the abductive process relies on the proper vetting of an idea. Unfortunately, it may take an idea being scrutinized through later deductive and inductive approaches to truly ever know how credible that abductively derived idea happened to be. Until those stages though, there are some guiding principles that can be used for selecting the best theories and hypotheses.

In abductive reasoning, the most plausible hypothesis should be selected over any other less plausible option (Sveneveg, 1997). Being able to compare all options would be helpful, but it is usually impossible for a person to be able to consider all possible explanations. A good rule of thumb might be that the more hypotheses that can be thought up, the more likely that the correct answer will be found. Though likely true in principle, simply having more hypotheses to choose from does not necessarily help a person understand which one is best (Douven, 2017). Producing a near endless number of hypotheses would mean that the process of abduction would be reduced to being little more than daydreaming, and anything that a person could think of would be included and put on equal footing with all other hypotheses (Hoffman, 2010). The reasoning at the foundation of scientific discovery deserves a higher standard.

In light of that, there is a necessary distinction between the creation of ideas and the instrumental abductive logic that forms an explanatory hypothesis (Hoffman, 2010). Peirce believed that the most preferred hypothesis would explain the facts in an economical way and be able to be challenged through experimental testing (Sveneveg, 1997). This preferred option was referred to as the inference to the best explanation (IBE). In the IBE, the metric for evaluating theory is not prediction via probabilities but explanatory power (Haig, 2005). A theory is the IBE if it explains a phenomenon better than rival possible theories.

Identifying the IBE may be accomplished best through the use of Thagard's (1992) theory of explanatory coherence (TEC). "According to TEC, inference to the best explanation is centrally concerned with establishing relations of explanatory coherence. To infer that a theory is the best explanation is to judge it as more explanatorily coherent than its rivals. TEC is not a general theory of coherence that subsumes different forms of coherence such as logical and probabilistic coherence. Rather, it is a theory of explanatory coherence in which the propositions hold together because of their explanatory relations" (Haig, 2005, p. 381). TEC uses the level of explanatory coherence as criterion for establishing IBE. Explanatory coherence is determined through the use of three criteria and seven principles. The three criteria are consilience (offering the most coherent explanation), simplicity (the theories with the fewest special assumptions are better, which in effect pragmatically constrains consilience), and analogy (the best theory is the one most relatable to other types of theories). The seven principles are symmetry, explanation, analogy, data priority, contradiction, competition, and acceptability (Haig, 2005, Thagard, 1988). Though these criteria and principles are not obvious and empirically measurable selection standards, they do help one choose between abductively derived ideas and help prevent just any random idea as from being even considered as the best explanation.

Research Design

Frequently, research efforts can be characterized as attempts to gain a greater understanding of some phenomenon. A phenomenon is an occurrence, often of distinctive importance, that is worthy of inquiry (Sandywell, 2011). When the relationship between some cause and effect is unknown for a phenomenon, one cannot explain why the phenomenon occurs in the way it does. The realization of this lack of understanding can cause surprise since one is unexpectedly caught unaware and is left with some fascination about how the phenomenon

functions. Situations like this are indicative of a lack of structured knowledge, conceptual grasp, and command of the phenomenon. To remedy this, one can use abduction to regain control through the creation of rules and pair future situations with these rules in order to make stronger inferences (Reichertz, 2010; Svennevig, 1997).

The current state of understanding regarding the phenomenon of governance decision making is believed to be representative of situations where the exact functions of a phenomenon are rather unknown. In this case, abduction could be used to generate greater understanding of the phenomenon's rules for operation, its relationships between key factors, and the identity of those key factors. Though abduction is far more conjectural in nature than induction and deduction when it comes to pairing observed facts with rules (Timmons & Tavory, 2012), the process can still be used to scientifically conduct a qualitative analysis. The start of this process is through the application of abduction's basic logical process.

The design of this research is the same as the design of abductive logic. Timmons and Tavory (2012) succinctly presented the formulaic structure of abduction described by Peirce. They stated, "abduction starts with consequences and then constructs reasons: *The surprising fact C is observed. But if A were true, C would be a matter of course. Hence, there is a reason to suspect that A is true*" (Timmons & Tavory, 2012, pg. 171). This work explores the phenomenon of governance decision making, and, as a matter of research design where abduction is applied, starts with an account of the surprising and puzzling evidence observed regarding governance decision making.

There are several puzzling pieces of evidence related to governance decision making. For instance, some of these pieces of surprising evidence might include observations such as: people seem to make different governance choices even when presented with the same information;

there appears to be a thematic element to the way people think about governance, almost as if it was a personality type; it seems as if there are clues that indicate that certain principles repeatedly guide people's judgments and evaluations of governance matters; standard political identities do not appear to suitably describe governance preference patterns; perceived motivations for governance preferences appear to overlap or be contextually bound; the four approaches that Kettl (2018) presented seem unnecessarily disconnected or incomplete; each of the four common decision making approaches appear to require different mind sets and assumptions, yet the same person could potentially use all of the approaches; people have the ability to understand the reasons behind one another's approach to governance even if they disagree; people seem able to communicate different aspects of governance but also appear able to talk past one another in terms of preferences.

This likely partial list of puzzling pieces of evidence regarding governance decisions starts the process of an abductive inquiry. These are each the surprising observed "fact C" mentioned before. The design of any research using abduction then moves on from the recognition of surprising facts into some process of reasoning and explanation. This means attempting to discover what is happening in the phenomenon that causes these surprising facts to come about. Again referencing the formulaic logic presented by Timmons and Tavory (2012), this is conceptualized as stating "If A were true, C would be a matter of course." To explore the main research question "How are governance decisions formulated?" is analogous to identifying what "A" is in the abductive logic formula. What "A" would cause these observed surprising facts of "C" to be a matter of course? This question is asking what rule of the phenomenon's operation would cause the puzzling evidence to not be so puzzling but simply outcomes that are expected products of some process.

The literature review presented in the previous chapter suggests the identity of the “A,” which is the rule for the process of governance decision making that is bringing about the existence of puzzling facts. It proposed in this work that this rule of “A” relates to the structure and approach of that decision making process. The form of this process is then conceptualized as a model. The literature review suggested that none of the four approaches presented by Kettl (2018), and especially not rational choice theory, are likely able to satisfactorily and solely describe how these governance decisions occur. Instead, the review suggested that these often complex and interpersonally communicated decisions employ a nonrational approach. The nonrational approach uses schematic lenses and heuristics that operate within a shared mental model to guide an individual’s decision making.

If it can be found that the structure of such a nonrational model could explain the presence of many of the puzzling facts associated with governance decision making, there would be support for this model as being the rule “A.” This would mean that these otherwise puzzling bits of evidence exist because the rule is causing them to happen. Said another way, the noticed surprising facts are merely the byproduct of governance decisions being processed in a particular nonrational manner. If a nonrational model could be presented that would account for these puzzling facts, then it is likely to be an accurate depiction of the cognitive processes that are happening because “if A were true, C would be a matter of course. Hence, there is a reason to suspect that A is true.” The goal of this research then is to discover the form of this nonrational model.

The design of this research is thus focused on completing the abductive process by truly discovering “A,” the nonrational model that accounts for the puzzling facts associated with the governance decision making process. By doing this, a more accurate and instrumental

understanding could be achieved, and the research question of “How are governance decisions formulated?” likely to be answered. The procedure for finding the form of this nonrational model is then focused on first discovering the schematic lenses that are used and then discovering the heuristics that are used. In doing this, as previously stated, the model should identify the particular cognitive anchor points unique to this context of decision-making, yet it should also be structured similarly to other models of decision-making in that complex groupings of information are chunked together in order to expedite outcomes and preserve resources. This will be achieved through the collection of various governance concepts, the grouping of these concepts, the comparison of different features of evidence, the structuring of associations, the mapping of a flow for decision making processes, the prediction of expected outcomes, and then, finally, the presentation of a framework of schemas and heuristics modeling the governance decision making process.

The sample of information used to assess various governance concepts will includes elements such as frames for reference, ideological identities, political philosophies, societal positions, and motivating interests. The selection of items deemed relevant to the nonrational model will be based on the components that appear to be commonly referenced as well as able to exert significant influence on governance decisions. Designing the framework of the model will then include deriving categories, highlighting prominent parts, structuring relationships between concepts, and identifying any stages of development that decisions go through. Analysis of the model will include how well a decision path can flow through schematics and heuristics and then account for puzzling evidence. Any analysis of the model should also include assessing its ability to account for how people predisposed to one outlook on things may have difficulty with other approaches to governance, yet the model should also be flexible enough to account for decision-

making processes that are more blended or hybrid in nature. Tests of the model will come through the principles of TEC, where explanatory coherence will guide identification of the inference to the best explanation. The resulting model will strive to economically address relevant facts, be structured in a manner that can be challenged scientifically, provide more utility than existing possible approaches, and create conceptual linkages to other realms of understanding.

The starting point for this abductive discovery is assumed to be related to concepts associated with the study of conflict resolution and the assessment of disagreement. A key focus of assessing and resolving disagreements is to examine the different interests and positions at odds in a given situation. Governance decisions are a matter of choice, but those choices are between different approaches to governance. The degree of difference between these governance approaches conceptually represents the degree of disagreement and conflict. To make a selection of some form of governance, to choose, is to resolve the conflict. It is for this reason that exploring governance-related interests and positions will be the starting point of the abductive analysis presented in the next chapter.

Summary and Applicability of the Methodological Approach

The following section is a summary of the methodological approach used for this study and a description of how such an approach is the appropriate technique for addressing the study's research question. To start, the abductive approach will be compared with the other common research approaches of deduction and induction. In order to compare the basic structures of the three forms of logic, an example from van Andel & Bourcier (2002, pg 276) is presented. The comparison highlights the fundamental differences between the three forms of logic despite each

being comprised of the same general elements. The example also underscores the unique type of inferential leap used by abduction, where the conclusion is reasoned conjecture. The comparison is presented below:

Deduction:

1. The beans in the bag are white.
2. The beans come from this bag.
3. These beans are white.

Induction

1. These beans come from this bag.
2. These beans are white.
3. The beans in this bag are white.

Abduction

1. The beans in this bag are white.
2. These beans are white.
3. These beans come from this bag.

For the current research, a deductive, an inductive, or an abductive approach are possible paths to take. In order to choose the correct approach, it must be determined which form of logical argument is best suited for exploring the query initiated by the research question. The choice of approach is a product of the domain of inquiry as it depends on the level of informational certainty available and the structure of evidence to be used to assess the situation.

Deduction has the logical form of “All A’s are B. C is an A. Therefore, C is a B.” In this construction, the idea is a conclusion that exists already in the premises of the argument. With valid and true premises, a conclusion can be guaranteed. This logic works well to test an existing idea of some sample within a specific condition. The process requires a good amount of situational and conceptual certainty in order to develop the logical premises, but if this level of information is available, a general rule can be used to affirm a particular conclusion.

The certainty in conclusion that is associated with deductive logic can be desirable, but it does not fit with the current research. As has been discussed, the use of deduction requires a high level of conceptual certainty. If theoretically-grounded assumptions existed already for governance decision making, then a hypothesis could be generated from them that could be tested to see if the available observations and examples of governance decision making supported it. In this, there would need to be an existing path to find support for. However, the domain of understanding pertaining to governance decision making falls short of being able to use deductive research methods because there is not yet a sufficient general rule that functions as premise from which conclusions can be drawn. There is not yet a conceptualization of what the process looks like to test if it occurs in that manner.

The next form of logical argument to consider is induction. Induction has the logical form of “All observed A’s are C’s. Therefore, all A’s are C’s.” Induction attempts to generalize existing ideas. Specific observations are projected into general conclusions that might be true. The inductive process typically consists of some form of data collection and analysis where a sample in some condition is evaluated to see if there is support for the ability to infer the generalizability of some factor as articulated by some idea. In this process, some idea already exists and the objective is to establish probabilistic grounds for this idea. Although convincing

support for a conclusion can be generated, no amount of evidence can guarantee inductively derived conclusions because additional or contradictory information can always be found.

The use of inductive methodologies is common in research, but inductive logic does not suit the current study. Induction uses past examples and existing trends to assess a theory. Induction would be applicable for the current research if there was a universal rule for governance decision making that had theoretical foundations. This information could be used then to determine if the results of some set of cases were influenced by some factor. The domain of understanding pertaining to governance decision making falls short of being able to use inductive research methods because the phenomenon lacks sufficient information to analyze. This is because to know what factors make up a governance decision is to first know how such a decision is made. Since it is rather unknown how such decisions are made, it would be impossible to identify first the factors to analyze.

Therefore, both inductive and deductive approaches are incorrect for addressing the research question for several reasons. Both approaches require an assumption of understanding regarding the causal mechanisms of the phenomenon that does not currently exist. In fact, little is known about the specific structure of governance decisions. Without the necessary theoretical basis of understanding regarding the phenomenon in question, the required assumptions for confidently creating the relationships between different types of data cannot be established. As a result, the necessary data for deductive and inductive analyses that would address this study's research question do not exist. Furthermore, any collection of data (interview, assessment, or archival repurposing) would be making assertions on a nonexistent theory.

Before any metric could be developed for a phenomenon, there must exist a belief that the mechanisms of the phenomenon are understood to some sufficient level. To have a metric

without such understanding would result in a researcher being unable to have meaningful expectations about the meaning of that metric in relation to the phenomenon. Because it is asserted here that there is not yet a workable conceptualization from which to develop the necessary factor(s) to assess governance decision making, this research is not seeking a specific metric but rather the conceptualization itself. Developing a phenomenon's conceptualization requires a methodology geared towards achieving such a goal. The methodology would also have to match the level of structured knowledge available for the domain of knowledge. Such needs point a researcher towards a methodology based on abduction when it comes to exploring governance decision making.

Abduction has the logical form of "The puzzling evidence C is observed. If A were true, C would be a matter of course. Therefore, there is a reason to believe that A is true." An idea is created from imaginative reasoning in order to explain the state of some sample in some condition. A conceptual space is established in order to use imagination to take imperfect observations and create some sort of conclusion about the state of affairs. The process of making inferences is used to create the best explanation that can be thought of for some occurrence or phenomenon.

What is it about the status of an inquiry into governance decision making that necessitates the use of abduction? The primary reason is that no data set reports how governance decisions are made across various situations. It is unknown exactly how those decisions are occurring, and as a result, no data set can be created without injecting some heretofore nonexistent theoretical presuppositions. Without such data, no deduction-based methodology could be employed to confirm that occurrences of governance decision making are happening for a particular reason,

and no induction-based methodology could be used to assess the influence that some variable has had and could be expected to have in future situations.

In governance decision making, the outcomes are known, but what is unknown regarding governance decisions are the conditions that bring about certain outcomes or results. In deduction and induction, the outcome is that which is confirmed or extrapolated to given the evidence presented. In abduction, the outcome is known or observed, and that outcome is, in and of itself, the presented evidence. The quest to find a reason for why a particular outcome has come about is the abductive process. The question of any abductive logic is to find why or how that particular result might have come to be. This is done by making the connections necessary to show that if something were true, then the observed evidence of some outcome would inevitably happen. It would be a matter of course.

Not only is abduction the only one of the three approaches to use for analyzing governance decision because of the previously mentioned reasons, it is also the right choice because it that reveals what is believed to be the best explanation from why certain governance decision outcomes came to be. Abduction can help provide an explanation when one is absent. Since governance decision making is a domain of knowledge that is asserted as lacking sufficient theoretical structure, that implies that an explanation for that phenomenon is absent. Abduction can address a question concerning the formation of governance decision making by offering a descriptive insight. This insight links outcomes to their origination roots.

In sum, it may be useful to conceptualize the three forms of logic as they apply to research agendas in this simplistic way: *Deduction is the confirmation of mechanisms, induction is the extrapolation of effects, and abduction is the creation of explanation.* Finding an

explanation for how governance decisions are formulated is the focus of this work. This means that abduction should be chosen as the methodological approach.

If abduction is to be chosen, how then is it used? Abductive research is looking to really discover and articulate what would make some governance outcome “a matter of course.” To start, some type of surprising evidence is perceived. If a particular thing happened to be true, the observed surprising evidence would happen as a matter of course. There would then be reason to believe that the particular thing is indeed true. The search for understanding seeks the best possible explanation in terms of finding the best fits for the available evidence. Truth in this situation comes in the form of a best guess, a guess that is aimed at being more than mere conjecture because of the incorporation of available evidence and logical scrutiny. When applied to understanding some phenomenon, this abductively derived explanation can be considered a theoretical insight. Theoretical insights are important because they lay the foundation for the theory that can describe a phenomenon’s mechanisms. Such a theory then needs development in order to create the factors necessary for conducting induction type research. From that point, conducting deduction type research could occur to confirm or disprove that something holds true or not across other situations.

The purpose of the abductive insight is to “produce a rigorous chain of reasoning” (van Andel & Bourcier, 2002). Maybe it is valuable to say that this chain of reasoning happens “backwards” from normal, as a function of the different logical formula that is associated with abduction. This happens because a very limited amount of utility could be gained by the academic community if a researcher stopped at the presentation of the abductively derived insight without giving it form or explanation.

For example, if when the molecular formation of gases was abduced only the general, categorical description of how that formation occurred was given, it would be of minimal applicable use to other chemists and physicists. If, however, the researcher added information about how the idea was formed by using some form of visualization to give tangible form to the theory (like a model of the bonds between molecules), then much more could be done with that abductive insight. With just a mere abductively derived theoretical insight there may be little a researcher could do in terms of future research. All that has been offered so far in the current study is the abductive determination that governance decision making likely occurs through the process of a nonrational shared mental model. More description is needed to know how that process is believed to operate, and more is needed in order to employ inductive and deductive methodologies for assessing factors and their influences across situations.

In this search for describing that which makes an outcome a matter of course, there may also be a question of how much description and articulation of such a thing is needed. It is likely a good tenet that there be a construction of explanation beyond the insight proportional to the existing level of conceptualization of the phenomenon. This means that the less that is known, the more that is likely needed to be created, linked, and explained in order for the insight to have utility to others.

Take for example a situation where a medical doctor has a patient that is very ill but with steadily worsening symptoms. In this potentially all too common scenario, the exact reason the patient is experiencing these conditions is unknown and an accurate diagnosis cannot be made. Every known standard test has been run on the patient, but the cause of the ailment remains unknown. The medical doctor then abductively searches for an explanation for why the patient is having these symptoms. He then looks to the available evidence to seek out a new understanding

that might be of use. Any possibly relevant pieces of evidence are included in the abductive search in hopes of finding an explanation for why this patient is experiencing the symptoms that they are. The medical doctor's sources of evidence could be any of the foods, vitamin supplements, and medicines ingested by the patient. The sources of evidence could also be any of the places the patient has been to, the people they have met, or any animals they may have interacted with. There could even be a search into the various diseases, unique infections, or possible exposure to dangerous chemicals as possible culprits in the situation. In the search process, the medical doctor also includes a search into the potential compounding effects of several factors happening all at once. In a search for an explanation of the patient's symptoms, the medical doctor seeks what situation would cause a reality where these symptoms are a matter of course. The data collection would be any puzzling pieces of evidence that seem to be relevant and jump out at him.

As a result of this abductive search, it might be determined, for example, that the patient's conditions came as the result of the unique combination of certain factors. Say for example that in this hypothetical situation the patient ate a strange tropical fruit that happened to have a negative interaction with a regularly taken prescription medicine. What was additionally challenging was that the fruit-medicine interaction happened at the same time that the patient was also experiencing a separate issue related to a recent dangerous chemical exposure from his work environment. The medical specialist in this hypothetical scenario would only be able to unpack such a convoluted situation by using abductive logic. Only through abduction would he be able to determine that the particular tropical fruit/prescription medicine/chemical combination would produce the exact symptoms the patient was exhibiting. Therefore, if the patient is taking that particular medicine, ate that particular fruit, and was exposed to that particular chemical,

then his current condition would be a matter of course. His parameters for guiding the construction of the explanation would fall in line with the theory of explanatory coherence (TEC) principles for an inference to the best explanation (IBE). From there a comparison to other options and tests of that conclusion could be conducted.

For this explanation to have meaning, be understood by others, be evaluated, and be used for assessing future situations, the medical doctor must elaborate and give specifics concerning what factors were interacting and in what way. For him to only provide the general abductive insight of “the patient is having a bad interaction of several factors” would be of little use to his coworkers. In order for there to be significant benefit of the diagnosis (the abductive insight), greater explanation would need to be provided. Only the offering of explicit detail about how the abductive insight is implicitly constructed can offer what is needed, which in this case would be the details of a treatment plan for this patient.

To complete the abductively derived contribution and show why the outcome is a matter of course, there must be sufficient description of the explanation. To do this, the medical doctor must then present his best guess of what specific components are interacting and causing these symptoms. In doing this, the articulation phases necessarily follow the presentation of the abductive insight. The same principles and approach of this hypothetical medical diagnosis example would apply to an abductive exploration into governance decision making. Also, as with the medical diagnosis example, any information within the domain of governance could be of use as a source of evidence for the formation of a nonrational decision making model.

Although not a formal representation of applied abduction thought, it may be helpful to think of the abductive process as having two stages: explanation and articulation. The first stage gets one to an explanation, a reason for why the puzzling evidence has come about. The second

stage is about clarifying that explanation with details in order to flesh out the explanation's ability to be evaluated in terms of assessment of predictive ability and/or be compared to other potential explanations.

For stage one of the current study where the insight is presented, it is abduced that the explanation for the puzzling evidence is that an otherwise difficult to identify nonrational shared mental model exists and occurs in people's minds. For the second stage of articulation, which enables the assessment and evaluation of that explanation, the potential form of that nonrational model is explored. To complete and make meaningful the abductive process, one should create an adequate explanation. This means giving form to the proposed nonrational shared mental model that is presented as being the cause of the observed puzzling evidence regarding how governance decisions are formed.

It is important to note that the abductive insight that is at the core of the contribution has already been presented. The abductive insight anchoring this research into governance decision making is that the mind uses a nonrational approach. It is the conclusion that governance decisions do not happen in rational ways but rather as nonrational approaches that are part of a societal shared mental model. Since this abductive insight has been presented, the remaining sections of this work are geared towards the instrumental development of this insight. Said another way, the forthcoming information in the next chapters will be about meaningfully explaining, giving structure to, providing visualizations for, and applying that abductive insight.

The articulation of an abductively derived insight that pertains to decision making should focus on the construction of the decision making process. If the insight of a nonrational approach being employed in governance decisions is established, then the procedure for discovering the structure of it, in order for it to become a useful and testable insight, would start with identifying

how the nonrational thought process operates. The starting point for decision making is asserted here as being the filtering of information from which a decision is made. Schemas are the first filters of incoming information and are used at the start of the nonrational decision making process. These filters will be shown to exist in the field as strong, culturally enduring content filters critical to the societal level shared mental model. When the schematic filters are established, the heuristic structures can be formed. If schematic lenses and heuristic mechanisms are able to be organized in a complete nonrational model, the model can then be used for conceptualizing the governance decision making process.

Only by developing the specific forms of the schematic lenses and heuristic structures can one determine if the shared mental model of nonrational thought is likely to represent the inference to the best explanation. If the structure of a mental model explains the surprising evidence, then it creates support for the accuracy of the general abductive insight. The model can be used to articulate the mental processes by allowing the user to trace different paths of choice. The various possible paths that are likely taken to approach a decision regarding governance are presented as relationships in a culturally-grounded nonrational shared mental model. From there, one could trace a path from origin to outcome or from outcome to origin.

If decision processed goes through different stages and those stages are represented in a mental model, then a path through each stage could be followed in order to reach each potential outcome. Tracing different paths through the model would represent different choices within the decision process and reveal different results. The use of a mental model to inquire how governance decisions are formed could be expected to show how public governance choices have consequences and cause real differences in outcomes. This concept of exploring an area of inquiry through the construction of a mental model can be done with many different types of

thought processes. For example, instead of asking “how are governance decisions formulated,” one could ask “how are decisions about getting to work in the morning formulated.”

Imagine the mental process the average person goes through for getting to work each morning. The person has to consider a number of potential options. First, he must know the location he is at and the location he is going to. Then he must consider the resources (e.g., effort, money, time, etc.) he desires to use in order to make this journey. With those choices acting as filters, the person can now better determine if they wanted to take a bike, car, bus, train, helicopter, or plane to work. Then once the method of transportation is selected, the person must make a choice regarding the specific route they prefer given their identified mode of transportation. Finally, they must repeat this process each time they are presented with a challenge of how they want to get to work.

The process that this person goes through is a mental model. This model would be a map of the choices that could be made and shows all of the possible ways a person could get to work. Earlier stages of decision making create filters for how later stage decisions within the mental model play out. For instance, once it was determined that the person would be taking a train to work, they are only concerned with train lines and not at all concerned with, say, the available bike paths for those choosing to bike to work.

Ultimately, if this mental model for getting to work was presented as a diagram of options, one could trace the path on it that the person in the example decided to take. Mental models can serve as a roadmap for describing decisions. The path a person takes can be traced, and some forks in the decision making road can only be reached if specific selections were made at prior forks in the road. This concept of tracing the path that a decision process goes through by following the individual choices made by the decision maker along the way represents the

function of a mental model. In this research, the objective is to answer the research question of how governance decisions are formed by creating a decision making mental model.

It may be important to note that several assumptions exist for this research. It is assumed (1) that abduction is a legitimate form of reasoning (with aspects explored in the past by Aristotle, Bernard, Peirce, Merton, Kuhn, & Hanson), (2) that abduction is a worthy approach to use for research since it has previously produced notable advances to understandings in science and other forms of structured knowledge, (3) that abduction has an established form of logical process for reaching conclusions, (4) that abduction does not use a data set to start from like induction does but rather uses puzzling evidence, (5) that abduction has the potential to extend existing theory and develop new theory, (6) that in order for abduction to have implications on generalized theory the “theoretically sensitized observer” must often bring as much to the datum as the datum presents by itself (MacCrimmon & Tillers, 2002), (7) that the goal of an abductive insight is an idea that is innovative, probable, simple, and testable (MacCrimmon & Tillers, 2002), and (8) that for any abductively derived conclusion to have a proper place amongst other research it should be thoroughly examined and explained.

To review the overall information presented in this section, abduction is the only choice available in terms of methodological approach for this domain of knowledge referred to as governance decision making. Abduction seeks out what factors best explain how the observed outcome came to be. It uses any possibly relevant source of evidence to develop an insight. This insight then needs articulation to be useful and testable. This fully articulated insight needs to match the domain of inquiry, so for decision making, the objective is to determine which factors would cause the identified mental process outcomes be a matter of course.

The articulation of an abductively derived insight that pertains to decision making would focus on the formation of a decision making process. Finding how information is filtered into this process would be the start of conceptualizing the process. Incorporating heuristic relationships between the pieces of information within the decision making process would then come next. With schemas and heuristics together, the relationships between the components can be structured. For a mental process like decision making, modeling the process is useful because it serves as a roadmap for how the decisions are formed. With a model established, each decision could be traced from its origins to its outcomes. One could then “read” the model by creating process paths until they reach outcomes.

What is it about the abductive process gives the structure to answer the research question of “How are governance decisions formulated?” The answer is that the abductive process helps one find what would create “a matter of course” for some outcome, and in this situation the outcomes are governance decisions. To identify that which would cause an outcome to be a matter of course in this situation would be to identify the cognitive process of choice selection that results in some particular governance outcome. By identifying what decision processes are believed to be the best explanations for why certain outcomes occur, one could be believed to have the best chance at understanding how governance decisions are formulated. If the abductive process was completed for this research, one would be able to make an inference to the best guess for these decisions are formulated. This would be possible because a theoretical road map linking the beginning stages of perception that occur within governance decisions to the outcomes of those decisions could be conceptualized. If those associations could be structured in a meaningful way, then one might have a scientifically testable solution to the question of how governance decisions are formulated. This would show that if there was a nonrational process of

a particular structure, the surprising evidence would be a matter of course. That search is the purpose of this research.

The current research abduces an explanation that addresses a set of puzzling facts regarding governance decision making. The analysis and results sections of the research will communicate how the idea is specifically formed and explain the meaning, implications, and consequences of that idea in the form of a model. The next three chapters of the dissertation is about articulating, giving structure to, providing visualizations for, and applying that abductive insight regarding governance decision making occurring through a nonrational shared mental model.

Abductive Methodology for Schematic Structuring

The following information presents the five steps that are to be taken in the analysis section of this research. In these steps, the abductive methodology is used to identify the schematic lenses necessary for constructing a nonrational decision making model for governance decision making. They are as follows:

Step 1: Vector Articulation – For a useful schema to be identified, it must specifically address the domain of understanding it will be applied to. In the current research, this will be content that would be used in a nonrational shared mental model of governance decision making. In order to focus on this specific subject, conceptual boundaries must be established that any content evaluated must be of potential usefulness in a governance decision making process. Then from within that range of content, a deeper search for applicable content can be conducted.

Step 2: Clue Identification – This study's approach makes several assumptions. It is assumed that the governance decision process uses a shared mental model in order to make

decisions, and schemas are considered part of that mental model. This would then imply that if a person is using a mental model related to governance, the cognitive process the person goes through includes some type of schema utilization. The utilization of schema is assumed to cause some type of indication that such a process is happening, and this would be to reveal some kind of clue related to the use of schemas. Since this research presumes that examples and indicators of those schemas are present in some form for governance decision processes, it is assumed that to identify the clues indicative of schematic expression is to ascertain the lenses that form the foundation of a governance decision making mental model. It is further assumed that the identification accuracy of those schematic clues can only be evaluated through reason, judgment, and logical argument.

Seel (2012) states that “A schema represents the generic and abstract knowledge a person has acquired in the course of numerous individual experiences with objects, people, situations, and events.” With this broad scope of potential inputs, clues related to governance decision making schemas will be searched for in a variety of areas. Clues will be sought within governance perspectives, values, societal anchors, motivations, and outcome goals. They will also be searched for in ideological identities, political philosophies, and common societal perspectives.

Step 3: Evidence Structuring – When potentially relevant clues are identified, they will need to be assembled in a manner that emphasizes the schematic frames. In doing this, it will be important to identify the different facets of each clue area and construct content in a manner that demonstrates the diversity of governance views within that domain of information. The abductive logic principle of theoretical coherence should be ever-present in these formulations. This principle helps one identify the best explanation by directing attention to the evaluative

criteria of consilience, simplicity, analogy, symmetry, explanation, analogy, data priority, contradiction, competition, and acceptability.

Step 4: Linkages Through Reconceptualizations – After different areas of potential schematic expression are identified, structured, and deemed conceptually distinct within the logical argument, it becomes necessary to assess if there is conceptual coherence across the different categories of information. If these different components are part of the same schematic lenses, then there will logically be relationships between the components as they will be existing as different versions of the same schema. With an overarching schematic framework acting as a scaffolding, each component can then be reconceptualized in order for conceptual bridges to be constructed that link the associated schematic components. The resulting structure can then be expected to show how the same schematic lenses are expressed differently across various areas of governance decision making. The schematic lenses would then be expected to represent different families of thought regarding the approaches one could take towards governance decisions.

Step 5: Application of Schematic Lenses – With schematic lenses partially established, they can be applied to different areas of thought within a larger mental model. Conceptual relationships can be extended into other areas related to governance decision making. With a more complete picture of the schematic lenses established, the schemas can be better evaluated for how well they represent the abductive inference to the best explanation regarding a response to how governance decisions are formulated. Again, the principles of theoretical coherence will guide this judgment. Through a process of comparing these schemas to one another, the results of these schematic structures can then be interpreted in terms of their relationships to any heuristics that may exist within an overall governance decision making shared mental model.

CHAPTER IV

ANALYSIS

In this research, abduction is used to address a set of puzzling pieces of evidence regarding governance decision making. These puzzling aspects are believed to necessarily exist because they are the byproduct of governance decisions being processed in a specific nonrational manner. This conclusion is the abductive insight presented by this research. The purpose of the abductive insight is to “produce a rigorous chain of reasoning” (van Anandel & Bourcier, 2002). A very limited amount of utility could be gained if research stopped at the presentation of an abductively derived insight without giving it form or explanation. A goal of this research then is to discover the structure of the abductive insight, and the analysis section of this research develops and communicates how the idea is specifically formed. The procedure for finding the form of this abductively derived model starts with structuring the schematic lenses that are used at the core of the nonrational decision making process. This will be achieved through the collection of various governance concepts, the grouping of these concepts, the comparison of different features of evidence, and the structuring of associations. The result of these efforts will be the presentation of a framework of the schemas used for governance decision making.

In order to develop the schematic lenses used for governance decision making, this analysis will use the five methodological steps articulated in the previous chapter: vector articulation, clue identification, evidence structuring, linkages through reconceptualizations, and application of schematic lenses. In using these steps to identify and structure the potential clues of nonrational cognitive processing, it is assumed that these lenses can express themselves in various ways. This means that for this analysis the conceptual clues indicating the different applications of schema use will be compiled and organized. This analysis will start with

otherwise disparate clues that potentially indicate the use of schematic lenses for governance decisions and then work to connecting them into a cohesive structure

Vector Articulation

The first methodological step of this schematic-focused analysis is vector articulation. Vector articulation is an explicit statement about the direction of the research. It communicates the domain and boundaries for which the area of thought being analyzed. In this research, the vector of schematic processing being assessed is only that which would apply to a nonrational shared mental model of governance decision making. This is asserted as encompassing the different stances, beliefs, terms, concepts, and identities that form the schematic lenses through which governance decisions are filtered and communicated. It is the goal of the remaining sections of this analysis to identify the formation of these schematic lenses that create the foundation on which a nonrational shared mental model derives governance decisions. Construction of such a model that can be then used like a roadmap to trace the governance decision making process.

Clue Identification

The second methodological step of this schematic-focused analysis is clue identification. This step of the analysis is significantly more substantial than the first step. In this stage, the research seeks out indicators that schemas are being used by decision makers. The schemas sought here are generic and abstract knowledge that people acquire and use for decision making. Given that understanding, this is the search for categorical generalizations and short cuts that are

believed to be indicative of the nonrational process. It is assumed that these aspects of decision making are readily present in the governance process and able to be identified.

The point of this section then is to establish that the identification of clues that would indicate the use of schematic lenses in the decision making process is likely to be accomplished through the recognition of competing components that represent fundamentally different perspectives on governance matters and are ultimately prioritized through governance decisions. This means that to communicate the logic that, for clues of schematic filter use are to be found, one needs to identify the particular relationships expected to contain such clues. These relationships are assumed to be where a few different schematic filters occur simultaneously and collectively offer different paths and conclusions that the decision maker could utilize. The different potential views that these filters offer to and urge a decision maker to adopt represent the competition that is resolved through a decision. That decision represents a prioritization of potential perspectives. The resulting rankings of perspectives represents the possible combinations of these individual perspective components. Combining the same few perspective components in different orders to create different end results is similar to the way biological DNA works. This is because different combinations of governance schematic filters result in different governance decisions being made. In sum, to identify the clues of governance indicating the use of schematic filters is akin to identifying the DNA of governance decision making.

In order to identify the schemas used for governance decisions, one should start with exploring how schematic lenses are assumed to operate. As previously discussed, schemas are the starting point for any such nonrational shared mental model. Different schematic lenses form different perspectives that the decision maker can adopt. Differing perspectives are assumed to

imply that there are multiple drives that compete for a final decision. Schematic lenses for governance matters would then influence how a people filter and assess information about a governance situation.

If (1) there are schematic filters for governance and if (2) the use of these schematic filters provides different conclusions about various aspects of governance choices, then (3) decision making for governance can be conceptualized as the process of reconciling the different streams of information provided by these schematic filters, and (4) the reconciliation process between the different streams of information in this process that results in a choice, represents some type of conflict or competition between alternatives that is resolved by a decision being made.

If such a conceptualization is accurate, then *the result of a decision where the conclusions obtained through one or more schematic lenses are given a form of preference or primacy over one or more other schematic lenses is in effect the expression of priority or significance between schematic lenses*. If a nonrational governance decision making process is the functional expression of schematic lens preferences (or at least the conclusions derived from such lenses), then it could be assumed that the expression of these preferences must necessarily happen in different ways for there to be variation in governance decisions. Furthermore, it is assumed here that the mechanisms and communication requirements of a shared mental model would necessitate that (1) there be different possible combinations for these expressions of preferences, and (2) there be unique identities to these various combinations of preference expression.

The consequence of these assumptions and the subsequent conceptualization they create is that the core cognitive nonrational process of governance decision making can be thought of as *various combinations of distinct elements that are ordered in particular ways*. Using this logic,

“various combinations” represents the potential for different mixes of information to be included in the different decisions, “distinct elements” represents the conclusions about information relevant to assessing matters of governance that are derived from schematic lenses, and “ordered in particular ways” represents the preference prioritizations of the decision made.

The use of various combinations of schematic lenses raises the question of how many schematic lenses would be expected to be present in a nonrational shared mental model of decision making for governance. The amount of possible combinations could vary greatly depending on if there is an endless or finite number of significant perspectives to account for. Judgment and Decision Making (JDM) research from the field of Psychology provides some guidance. A review of JDM literature by Connolly and Ordonez (2005) suggested that in situations where preference and purposive choice, decision analysts believe that people only have a “few, basic values and must derive or construct preference...[for]...unfamiliar choices” (p. 499). It is assumed here that a good example of a situation where preference and purposive choice exist would be where there is a decision to be made regarding some matter of governance. These conclusions from Connolly and Ordonez would then suggest that only a limited number of perspectives would be used by people in a nonrational decision making shared mental model for governance. If only a limited number of perspectives were used, then there would be a finite number of possible combinations and configurations of those perspectives.

A good analogy for conceptualizing how governance decision making would consist of “various combinations of distinct elements that are ordered in particular ways” might be to think of these distinct, schematically derived elements like components of DNA for governance like there is DNA for organisms. Thus, the goal of this analysis is to identify these foundational

components that form the foundation from which governance decisions flow from. These schematically derived perceptions might be thought of as core drivers for governance decisions.

Identifying components. If there are a few, distinct, and foundational components that represent the perspectives that combine in unique ways to create governance decisions, what then are these components? It is assumed here that the combinations of these components are not purely random concoctions but rather occur with a sense of intentionality since they are people's willful decisions for governance. A solution for identifying these components, these clues that indicate the use of schematic lenses, may become evident by exploring the mechanisms of how they work together in people's decisions. If a decision is the result of a choice between possible alternatives, then a governance decision could be identified as the outcome of a clash between different schematically-driven perspectives. If some form of struggle between components is occurring, then the social science literature of "conflict resolution" would be relevant as it specializes in analyzing such competitions.

This research assumes that there is a conceptual relationship between conflict negotiation situations and the struggle between different governance viewpoints. It is for this reason that the methodological step of clue identification may then be best accomplished by using the conceptual structures provided by this body of literature. Some key notions of conflict resolution that may be of particular use to this research are concepts of "interests" and "positions." A very basic understanding of each is that positions are the identifying desires of competing parties, and interests are the motivating reasons for why those positions are sought. Positions are not concerned with the underlying desires of others, but interests are and seek reconciliation.

Many conflicts occur when there are competing parties, and both parties desire to hold the same position, but the holding of such a position is perceived as mutually exclusive. Only one party can win control of the position given the way it is conceptualized, and the conflict represents the struggle to win that control. This type of situation could mean that, to some degree, the competing parties essentially hold the same identity, designated by having a particular perspective regarding some objective.

Accordingly, conflict resolution efforts often try to separate interests from positions. This is done in order to see if each party can focus on ways to satisfy their underlying interests instead of focusing on trying to win control of some common position. In doing this, it may be found that although positional control might be mutually exclusive, each party's interests are not. Conflicts can then be resolved when both parties satisfy their interests in a way that minimizes or makes irrelevant the original position that was in dispute (Ramsbotham, Woodhouse, & Miall, 2011).

In spite of such approaches, conflicts can get difficult to resolve. A main reason for this difficulty is that, for the position held by each disputing party, an underlying interest emanated from it, defined it, and caused the position to exist. This connection is what can make separating interests and positions difficult. This conceptualization relates to the (pejorative) political saying that "where you sit determines where you stand," where the defining position of a disputant is integrally connected to their interests. This relationship between interest and position could be stated somewhat formulaically with "Disputant A is identified as holding position X because it has interest Y, an interest that results in the desire for and creation of position X." It is assumed here that it is in this way that interests and positions can be integrally related, even though the two concepts are meant to represent necessarily different things in conflict resolution literature.

If interests and positions cannot be separated in order for a constructive resolution to be reached, the only path for the conflict to be ended can be for one disputing party to “dominate” the other disputing party in some way. Without the ability to separate the two components and remove the mutually exclusive nature of the situation, conflict can appear inevitable for certain situations. Therefore, where positions and interests cannot be differentiated, some form of dominance between the disputing parties must develop in order for the situation to progress. It is assumed here that this form of inability to differentiate positions and interests in a constructive manner occurs at some core level of cognitive processing for nonrational governance decision making.

Development of Interest/positions. When an interest drives an identifying position, this means that the disputant has a particular perspective. Possessing a perspective that is emblematic of some motivation is synonymous with the expression of some type of schematic lens. As previously explored, a schematic lens is the cognitive tool for forming some frame of reference, some filter for assessing what matters, or some vantage point for a particular frame of mind. Therefore, a disputant could be conceptualized as having a particular perspective on what matters as a result of the combination of their identifying position and motivating interest.

It is assumed here that the conflict of choice that is at the heart of any decision regarding governance possesses all of the same qualities as any other mix of disputants. Given this assumption, a governance decision is believed to consist of some mix of schematically derived perspectives that bring with them their own positions and corresponding interests. If these positions have corresponding interests, then the two represent a singular perspective. Together they are occupying the same place in the decision making landscape. If that link is exclusive to

the pairing, then collapsing the two components into one new, singular component would make sense. This creates the concept of “interest/positions” that this work will use to identify each schematically derived perspective that is to be identified. Given that differentiating the exact functional association schematic lenses have to positions and interests is unknown and, to some extent, outside the scope of this work, this hybrid designation of interest/position is used here to represent a particular governance perspective.

A governance interest/position, as used here, would be where an interest and position are aligned, unable to be meaningfully disaggregated, and not significantly influenced by other perspectives. It would be a “pure” perspective and an unaccommodating expression of the conclusions of a schematic lens. A governance interest/position could be expected to only be able to filter and assess information in one predominant way. This would mean that preferences would always be expressed as the governance options that offer the highest evaluation, given that filtered assessment. The unique/identifying features of each schematically-driven interest/position would then desire the highest evaluation possible for that category of information.

A governance interest/position would be expected to have a distinct desire that is integrally related to the evaluations and derived conclusions that come from that schematic lens’ perspective. The identification of governance interest/positions could then be expected to help reveal the subsequent evaluations, conclusions, viewpoints, and preferences that are connected with that particular perspective. The interest/positions would then be clues for identifying the configuration of governance schematic lenses. As a result of these inferences, it is determined that identifying the governance interest/positions that are representative of the governance schematic lenses would partly satisfy the second step of the analysis.

These interest/positions are likely to have several identifying features. They are expected to be distinct and differing frames of reference with representative motivations for their vantage point on society. Given that these are governance interest/positions, the perspectives they adopt are likely connected to a conceptualization about what type of action government should typically take or what kind of role the government should play while taking certain actions. These differing perspectives, to the extent that they desire different things, could also be expected to utilize different evaluations for determining the success or failure of governance. Furthermore, given the potential broad applicability that comes with being a core component of a societal level shared mental model, these interest/positions are expected to be readily accessible mindsets for the average person to be able to adopt.

With these assumptions about their identity, it might be helpful to conceptualize these interest/positions as different types of “social institutions.” Social institutions are “mechanisms of social order, which govern the behavior of a set of individuals within a given community” (Miller, 2019). As applied in this work, interest/positions for governance, as a function of the schematic lens through which information is filtered, may be social institutions that govern the type of evaluations people of a certain mindset will use for assessing governance decisions. This would imply that the continued use of a schematic lens would lead to decisions of a particular type on a consistent basis, and, indeed, social institutions have stable, valued, recurring patterns of behavior (Huntington, 1968).

In combining the aforementioned assumptions, a number of conclusions about the likely identity of governance interest/positions could be determined. Interest/positions are expected to: (1) consist of individual components, (2) relate to the world of governance, (3) advocate some perspective of governance decisions, (4) be concerned about different things as a result of

schematic filtering and assessment, (5) be limited in number, (6) be readily “knowable” perspectives as part of societal-level shared mental model, (7) occupy distinct places in the world of governance, (8) and, collectively, be comprehensive for addressing and representing the major, core perspectives on governance. The following section will identify the interest/positions for governance that fit these expectations.

Using vector articulation to achieve clue identification. The act of governance, for which certain decisions are made, is assumed to be an action that includes some governing entity and the people that are somehow related to this governance decision. Said another way, the process of governance frequently exists through a people generally associated via some purview and a governing entity that represents some type of formal or informal establishment of power over that associated body of people. In these dynamics, any individual making a decision for or in the perspective of the governing entity in some way would also, by default, be able to be considered part of the people affected by that governance, if situational contexts allowed.

This means that the differences between the people involved in a governance decision are assumed to be more cognitive than structural. It means that, more than any other identifying characteristic of the individual, the schematic lens being used is the determinant of view in the governance decision making process. This assumption would imply that the identity of governance interest/positions, which are conceptualized here as form of a manifestations of the schematic lenses used by the shared mental model, relates to at least some governing entity and some designated set of people.

If governance relates to the actions of government, then the entity, regardless of its formation, which acts as a governing body is likely to be an essential component of the

governance process. It is important to note that what is referenced here is the schematic lens representing or taking the perspective of such a governing entity rather than the governing entity itself. This schematic lens then represents a thought process where the perspective of such a governing body is adopted. The adoption of the governing entity perspective would not require one to actually represent or be in such a governing body in some way. One would only need to be assessing some governance matter from the decision making perspective of the governing entity by using the schematic lens associated with that filtered view on a governance decision.

The State. Though the governing body could take on any form, it and its corresponding governance schematic lens will be referred to here in this research as “the state.” To make a choice regarding some governance matter in this view would then be to adopt the schematic lens of the state. This means that this view would filter decision processes through the perspective and preferences of the governing entity. A person using this decision making schematic lens for a governance decision would then be essentially asking the question of “what is most important to the state when it comes to this matter at hand?” That focus would guide such a person’s governance decision making. As a result of these conclusions, “the state” is believed to be a core interest/position that represents a key schematic lens in governance decision making.

Other than the state, the other aspect relevant to governance interest/positions would refer to the body of people associated with this decision making process. It is assumed in this work that “the body of people” is too broad of a categorization to have a meaningful distinction regarding schematic lenses. This is because the dynamics of governance decisions are assumed to be more than merely a binary schematic struggle of the state versus the people.

More options for combinations of potential decision making outcomes would likely be needed in a true representation of the “DNA of governance,” and it is assumed here that a more nuanced interpretation of the body of people associated with a governance decision would be beneficial. If the body of people associated with a governance decision could be considered a sort of social system, then techniques for assessing systems could be of some guidance. The social sciences commonly analyze systems at three levels: the macro, meso, and micro.

These levels of analysis are likely to be helpful for meaningfully conceptualizing the interest/positions related to “the body of people” associated with a governance decision. The question arises then of what would be the macro, meso, and micro levels of such a system? A European Identity Seminar from 2003 may have provided the answer for how to properly apply these levels of analysis to this subject. This seminar was titled “European Identity: Individual, Group, and Society.” This work explored interactions between these classifications of people, and it is likely the correct way to divide “the body of people” into the macro, meso, and micro levels of analysis.

The Everyone. The macro level of the body of people would be the largest number of components within the system. This would imply that the macro level of the body of people associated with a governance decision would be the largest population classification. Regarding governance matters, this would be all of the people involved with that domain of governance. In this work, this level of analysis will be referred to as the “everyone,” and it could be thought of as an entire society of people. Everyone would be the macro level interest/position in a governance decision making process. A person using this decision making schematic lens for a

governance decision would then be essentially asking the question of “what is best for society as a whole when it comes to this governance matter at hand?”

The Individual. On the other end of the schematic spectrum would be the micro interest/position, the viewpoint representing the smallest segment of a people associated with a governance decision. This would be a single person or, possibly, a single family unit of some form that would have a unitary view on governance matters. In this work, this level of analysis will be referred to as the “individual.” The individual would be the micro level interest/position in a governance decision making process. A person using this decision making schematic lens for a governance decision would then be essentially asking the question of “what is best for me and my family when it comes to this governance matter at hand?” Theoretically, this perspective, through some theory of mind mechanism, could also be assumed to account for the question of judging what one supposes another person or family similar to oneself might want. This could be thought of as asking the question of “well, what would I decide if I was presented with that choice?”

The Group. Finally, there would be the meso level of analysis. This is the level of analysis that exists between the macro and the micro. It is something more than an individual but less than everyone. This would be identified as some organization, community, or shared identity that can account for some set of people. This set can be of any size as long as it is less than the whole and more than one. Examples of such groups are those based on geographic regions, tribe, race, ethnic group, religion, status, city, belief orientation, political party, trade, or other similar possible segment or subsection of society. In this work, this level of analysis will be referred to

as the “group.” The group would be the meso level interest/position in a governance decision making process. A person using this decision making schematic lens for a governance decision would then be essentially asking the question of “what is best for my group when it comes to this governance matter at hand?”

Interest/positions as Schematic Lenses. These four interest/positions - the state, the everyone, the group, and the individual - are asserted as being representative of the four core schematic lenses for a governance decision making process. Governance-related information entering into the mind of a person is filtered and assessed through one of these lenses. A person adopts the perspective of the interest/position in this process, and uses it in a nonrational manner in order to make a decision. In doing this, the decision maker functionally ignores what might be offered by the other perspectives. This would imply that one having such a focus would be taking a purist view on governance matters.

Since each perspective’s mindset would be assumed to be rather accessible to the decision maker, it is assumed that personal preferences and contextual factors would dictate the specific interest/position standpoint an individual decision maker would use. Moreover, although the four are differentiated by scope and focus, there is no inherent reason to believe that any one element offers a more relevant or valuable perspective than any other element. Each of the four interest/positions are considered inherently equal and valid at face value in terms of the comparative utility of the use of the differing schematic lenses.

Values as the Desired Outcomes of Interest/positions. As has been discussed, interest/positions advocate for some perspective on governance decisions. As a result of their

singular, schematically-driven conclusions regarding the evaluation of some governance option, interest/positions desire a distinct, identifiable, consistent, and enduring type of governance outcome to occur. To know if a vision of an outcome has been achieved, some type of criterion-based evaluation of the desired outcome is likely to be used. To desire and highly rate something is to value it. The Merriam-Webster dictionary states that a value is commonly thought of as a principle or quality that is intrinsically desirable through having a relative worth, utility, or importance. Values are likely important and relevant to decisions of governance because they express preferences and provide some type of criterion for success. This would suggest that another important aspect of understanding and structuring governance schemas would be to understand what are likely to be the core values of governance.

Though many values can come into play for complex decisions, it is assumed in this work that, just like for interest/positions, there is likely to be a small number of core values that are fundamental to governance decision making. These assumptions would also lend support to the idea that the governance interest/positions exist as some form of societal institutions because societal institutions have positions and values (Miller, 2019). This would indicate that certain interest/positions and certain values would likely be related to one another. Therefore, to complete step two of the analysis used in this research and fully identify the clues of the use of schemas in governance decision making, the core values of governance should be abduced.

The question then arises of where to look to identify the core values of governance. It is assumed here that the best approach would be to turn to governance practices to find hints for determining what values might be considered important. Since public administrators use values to make decisions (Kettl, 2018), the values emphasized by public administration might serve as a close surrogate for the values of governance.

Efficiency and Effectiveness. The original core value of public administration is likely considered to be efficiency, a value highly emphasized by Simon (1947). Efficiency is concerned with the proper utilization of resources as determined through a ratio of inputs to outputs (Perry, 2005). The second commonly referenced value for public administration is effectiveness. Effectiveness is a concern for if governance is achieving what it set out to do (Norman-Major, 2012). The two values of efficiency and effectiveness are referenced countless times in public administration literature and practical endeavors. Though there are times where the two goals can be mutually exclusive to some extent, both are obvious core values of public administration.

Turning to the Pillars of Administration. Public administration then moved on from a focus on efficiency and effectiveness to include other values, such as “economy.” Perry (2005) wrote that the three E’s of efficiency, effectiveness, and economy have been principles that have guided public administration and have been identified as the pillars of the field by National Academy of Public Administration (NAPA). Economy is defined in this usage as the ability to achieve organizational objectives while acquiring resources at the lowest cost (Perry, 2005). These three principles have also been meaningful to evaluations of public performance management (Otrusinova & Pastuszkova, 2012)

Though popular in some circles for administrative and evaluation purposes, this work takes the stance that there is a conceptual problem with the use of economy as a component of a governance decision making model. No argument will be presented here that will refute that economy as a metric may have a place in various management strategies by assessing that expenses are used wisely, but it is not believed to have an independent place in governance

schemas. This disfavor with economy revolves around the definition and conceptualization of the term, and, as a result of this perceived problem, economy is not believed to represent an independent aspect of decision making.

To start the journey of understanding this perceived problem, this research starts with two straight forward definitions of the term. The Merriam-Webster dictionary refers to economy as frugality in expenditures through the efficient use of resources. In the world of administration, economy is sometimes described in ways that essentially mean attempting to maximize results through the best use of resources towards desired ends (Norman-Major, 2012). Given these two definitions, the two components of the process that create an assessment of economy appear to be little more than a blend of what is assessed independently by efficiency and effectiveness.

In reference to the efficiency side of an economy assessment, expenses are merely inputs to any efficiency analysis where inputs are compared to outputs. “Expenses” here would be a term that would apply to concepts like time, resources, or any other thing that could be exchanged for some type of utility. This means that to speak of expenses is to simply reframe discussion of inputs.

Furthermore, there is a relevant implication that arises if the focus in an assessment of economy is on the input of financial resources in order to get the most governance output. The implication is that such an understanding creates an assumption related to the direction of efforts. It makes the implicit assumptions that resources are already directed correctly towards certain desired services and that any desired deliverables are achievable. These implicit assumptions mean that the output side of the efficiency assessment is held constant and that the only measurement relevant to the concept of economy is how to achieve that desired objective with the fewest inputs of financial resources. Said another way, the current understanding of economy

presents itself as an efficiency assessment where the outputs are held constant at an optimum standard and the focus for any critique is limited to the inputs used - the “best use of resources” that gets the closest to an idealized process output. This means that, in some respects, economy would represent little more than a modified evaluation of efficiency.

In reference to the effectiveness side of economy definition, the other half of the current understanding of economy appears to represent merely an implied effectiveness assessment. If effectiveness is the ability to achieve desired outcomes given stated intentions, then economy represents a modified assessment of effectiveness because it carries with its conceptualization various implied intentions. When any intention of governance is proposed, it means that some governance action is to occur in some way. To take some governance action with the hope of achieving some result is to hope for some effective effort.

This means that to “maximize results” is to hope that outcomes will match intentions in an idealized manner. In such efforts though, it might be implied that it would also be hoped that some particular course of action will not leave the governing entity bankrupt, worthy of being overthrown, in a state of disarray, etc. Said another way, any assessment of economy is, in part, just an effectiveness assessment that implicitly carries with it a number of outcome expectations represented in the economy definition in some way as “maximized results.”

Taking these two positions together, the assessment of economy appears to boil down to little more than an efficiency assessment with an implied effectiveness assessment. It may even be characterized as the balanced optimization of both efficiency and economy, an administrative pareto optimality of the two values for which an entity aims its efforts. Given these assumptions, there is not believed to be an independent schematic lens for governance specifically concerned

with economy, and all aspects of that concept are believed here to be parts of efficiency and effectiveness.

The likely advantage in taking this position is related to limiting covariance. This means that excluding economy as a variable of assessment - and thus an independent aspect of schematically structured decision making - limits the potential conceptual and statistical overlap that could occur if economy was retained alongside efficiency and effectiveness. As a result of these assertions, this research takes the position that there is merit in retaining the values of efficiency and effectiveness, but it also takes the position that there is no additional progress gained towards the goal of identifying schematic lenses for governance by also retaining the commonly cited pillar of public administration that is the value of economy. Structurally, there are other core values of public administration that are often referenced, even as alternative pillars of the field, that could serve as suitable alternatives for “economy” when suggesting the identity of the schematic lenses used in governance decision making.

Equity. Another value espoused by public administration is that of equity. Equity has been discussed in public administration as a core value of the field, but its place as a pillar of the field in relation to other values has been a minor matter of dispute. Equity is understood in this work as justice. This principle is considered to be a central issue in public administration (Perry, 2005). Some present the argument that equity should be considered a pillar of public administration regardless of any other value considerations (e.g., Svava & Brunet, 2005). Some are of the view that equity should essentially replace economy as a pillar of public administration (e.g., Bishop, 2006). To others, equity and efficiency should be considered pillars of the field,

but economy should be retained while the value of effectiveness is dropped (e.g., Frederickson, 1990).

Furthermore, some take the perspective that equity should simply be added to the established values of efficiency, effectiveness, and economy as pillars of the field, such as when “the National Academy of Public Administration’s (NAPA) Board of Directors recently adopted social equity as the fourth pillar of public administration [...] (National Academy of Public Administration, 2005)” (Perry, 2005, p. 26). Norman-Major (2012) also discussed the NAPA inclusion of equity as fourth pillar of public administration, stating “While not the only values in local government decision making and service delivery, these four E’s are considered to be the core values that support and drive the practice of public service implementation” (p. 13). Though equity might be considered a core value of governance alongside other values like efficiency and effectiveness, there has been debate and confusion about the proper meaning of the principle.

Social Equity. The dialogue about the place of the value of equity in public administration also includes significant discussion about a particular interpretation of equity. Perry (2005) noted that, to many, the fourth pillar represents not just equity but “social equity” and that “Frederickson and other New Public Administration scholars have written in the area of social equity since the 1970s” (p. 25). Perry cites the definition of social equity put forth by Schafritz and Russell (1997) that describes it as the equal treatment by political systems and the equal delivery of public services. Social equity is also concerned with the equitable distribution of efforts that come directly or indirectly from some governing body, including the administrative functions and processes (Svara & Brunet, 2004). Social equity is said to take on three forms within public administration: (1) simple fairness and equal treatment, (2) the

distribution of resources with the intent of reducing inequalities, and (3) the redistribution of resources to increase the equality of opportunity (Norman-Major, 2011). It is a concern not just for if a government program or policy is functioning properly, but also for whom the program or policy is actually working (Frederickson, 1990).

Although these understandings of social equity seem rather straightforward, the common public policy conceptualization of the term is actually confronted with many definitional problems. Social equity essentially functions then as an extension of the normal equity definition by reframing and recharacterizing the term to encapsulate principles of equality of outcome and fairness. The framing of equity in this way has actually caused some difficulties for public administration.

Since social equity can be thought of in a variety of ways, thinking of it as a synonym for equality or fairness can present challenges in regard to one's interpretation and application of the concept. The usage of the term in public administration has been plagued with vague and imprecise usage (Svara & Brunet, 2005). This is why there has been discussion that social equity needs to be more clearly defined and operationalized (Norman-Major, 2011). Svara and Brunet (2004) state that public administration has an urgent problem with understanding what is specifically looked for when trying to assess social equity. The two researchers have worked to propose a framework for identifying it, but they acknowledge that there is a great variety in how different people think of social equity. The confusion regarding social equity exists because of the governance implementation challenges that are associated with trying to use a concept that has a sense of imprecision and inexactness.

The vague and varying understandings of what exactly social equity is, where it references equality more than a more generalized and uncontextualized sense of equity, make it

difficult for public administrators to understand the proper way to implement government initiatives focused on it and to prioritize the value over other key values like efficiency and effectiveness (Norman-Major, 2011). On the surface the term has substance, but it is rather hollow when examined at a closer level (Svara & Brunet, 2004). This apparent lack of substance regarding the practical application of social equity also causes problems for research related to the topic. Even with the use of proper measurement methodologies of various policy initiatives, there is difficulty in clearly defining what exactly should be measured in order to accurately capture the real meaning of social equity (Norman-Major, 2011).

An unclear understanding for what exactly constitutes social equity makes achieving pillar status for that interpretation of equity a difficult objective to accomplish (Norman-Major, 2011). The term also lacks some aspect of necessary objectivity when compared to other core values. Efficiency and effectiveness have the potential to be far more objective concepts than social equity due to its more normative interpretations. In practice, these normative interpretations cause it to be more difficult to obtain an unbiased assessment (Norman-Major, 2011). Public administration actually disregards any sense of neutrality, a central aspect of the impartiality that is essential to equity, when embracing social equity by pushing for this fairness and equality-focused interpretation of prescriptive justice (Norman-Major, 2011).

Moreover, to present an inequity for a purpose cannot simultaneously also be considered equity. This problem might be best represented by the challenge that conceptualizing equity as equality and fairness removes the ability to delineate the meaning of justice. As Norman-Major went on to say in 2012, "The stickiness comes in the question of what is 'fair' and 'just.' One person's fairness may be another's injustice. Equity also has multiple forms that differ in

complexity and run from simple fairness and equal treatment to reducing inequities and leveling the playing field by providing equality of opportunity to disadvantaged groups” (p. 13).

Equity-Ethics Conflation. There is a way to solve these problems associated with the conceptualization and practical application of social equity while simultaneously keeping equity as a core value for governance matters. The solution is to eliminate confusion by simply dropping the word “social.” Doing this would remove the additional weight of interpretation challenges that come with functionally transforming the term equity into social equity. This would mean moving the supplementary social equity considerations over to the domain of a value more apt for addressing them: ethics. Taking this path would allow equity to maintain the principles of justice where all individuals would receive the same treatment regardless of secondary effects. Doing this would also move questions about purposely preferred inequalities might actually be preferred to another value domain of consideration, one focused on conforming to accepted standards and interpretations of morality.

This proposed solution to the problem of social equity lacking precision as a meaningful term for public administration is based on the allegation that the term social equity unnecessarily lumps together the principles of equity and ethics through the reconceptualization of equity as equality and fairness. Evidence of this problematic link and reframing is subtle but important. This alleged conflation of conceptual domain between the terms equity and ethics that is believed to occur though the conduit of social equity driven equality might be best shown in the writings of Norman-Major (2011) stating, “At the heart of debates over social equity are questions about what is fair, just, and equitable. Ethics course easily lend themselves to discussions about these issues. How do we determine what is fair, just, or equitable in a society? How do we define these

terms? Who gets to define the terms? It is also important to consider for whom policies are fair, just, and equitable. Other questions for consideration might include the following: What is the proper role of government in correcting injustice, particularly if the injustice was caused by public policies? Is it ethical to give some populations more in order to create equality of opportunity? What if policies created to help one group become detrimental to another? What are the ethics behind determining which groups deserve extra consideration or help through targeted programs?” (Norman-Major, 2011, p. 248).

That quote looked at questions regarding how to be equitable but through a social equity conceptualization. It helped show the real-world challenges that come up when questions of defining equity are shifted through the social equity framework and become questions of fair ways for governance to occur. Such a discussion, which is believed here to be an ethical quandary as characterized by Norman-Major (2011), inevitably leads one to ponder the comparative desirability of creating inequities in an area in order to create an outcome of fairness.

The problem with such plans is that the entire notion of creating an inequity for some other purpose, such as to establish some form of equality, is to suspend the value of equity. It is to use some ethical determination for what is right other than a decision based on what is equitable. It is to say what is “good” by creating a new conceptualization of “justice” that is only able to be achieved through an inequality.

The first problem with this way of thinking is that if the concept of social equity could be an ever changing and situationally adaptable value that can conform to any efforts to reframe a situation. This would make it a value it that would have little functional worth other than as a tool for helping with the rationalization of any action. A governance decision using this

interpretation of equity would seemingly have little to no principled or metric anchored foundation from which to evaluate the worthiness of some decision since there would be a moving goalpost for which to aim. The relatively straightforward conceptualization of equity as the manner in which a governance action is taken towards or for a people would be substituted for a potentially endless reweighting of outcome equality. Since the process and effects of governance are rather continuous and mutually dependent, the approach in question would create a sort of “Heisenberg Uncertainty Principle” for governance matters. As such, a more straightforward and less iterative interpretation of equity, opposed to a fairness and equality focused social equity, is likely the most relevant to a nonrational decision making process.

The second problem with that way of thinking is that the logic used for a rationalized sense of outcome equality could also be applied to matters of efficiency or effectiveness. It may be the “right” thing to have some inefficiency in one matter of governance because it leads to some desirable outcome either later or in some other domain. That desirable outcome may or may not be related to some aspect of later efficiency. It may also be the “right” thing to be less than ideally effective in some regard because it creates some advantageous or desirable secondary effect, and, again, that desirable effect may or may not be related to some aspect of effectiveness at a later time. These examples illustrate that the question of what is “right” is a question separate from the values of efficiency or effectiveness, though there could indeed exist a complex relationship given how the mechanisms of this situation play out.

Neither of these two possible perspectives given in the examples above on efficient or effective governance decisions would necessarily have anything to do with equity, but they would address the question of right or wrong that comes with an ethical decision. This implies that the value of equity and a question about what is right or wrong should be thought of as

different matters of concern in a governance decision. It also implies that the correct interpretation of equity for governance decision making would not be as social equity but rather as unqualified equity with concerns that come with the “social” aspect of social equity moved over to the domain of ethical decision making.

An assertion of value conflation such as the one just discussed implies the exploration of the subtle distinctions between a number of terms, and there would only be a place for such a discussion if the distinctions were not obvious or commonplace. To disentangle equity and ethics is to explore terms like equality, justice, rights, righteousness, liberty, and opportunity. Nuanced terminological differences between such words may be negligible in real life practice but are considered vital here to the accurate conceptualization of the distinct schematic lenses of a nonrational governance shared mental model.

There are volumes upon volumes of writings on these topics with meaningful arguments that are simply beyond the scope of this work. If Plato, Aristotle, and many other prominent learned people have debated the proper meaning and operationalization of these concepts for thousands of years, this work will be unable to fully encapsulate the intricacies of those discussions. Further complicating matters is the reality that those many years of effort have resulted in the creation of subcategories and competing classifications for many of those terms. There are also contextual versions of the concepts, overlapping realms of practical meaning, and synergistic effects that can occur between actions taken in the name of multiple concepts simultaneously.

Conceptual Dichotomy. Given these challenges, this work aims to expedite such complicated discussions via the explicit assertion of some conceptual distinctions. In proposing

these conceptual distinctions for the development and understanding of schematic lenses, it is important to note that despite any possible relationships that might exist between the terms, the differentiation between presented terms is not meant to create any sort of spectrum between the two areas of thought. The only objective here is to give form to two distinct views that are not inherently referencing any other frame of thought in order to have meaning. The referencing of a term does not mean that equity or ethics is more or less of anything, just different. That is to say that the opposite of equity is not ethics, or vice versa. Also, these schematically-focused descriptions do not mean to imply synonymous definitions between terms that fall within the same categorization.

Equity is operationalized here as representing equality of opportunity, justice, negative rights, liberty, an acceptance of results, a focus on the law, a treatment-oriented perspective, integrity, honor, and an evaluation of the relative comparison of opportunity versus injustice. Ethics is operationalized here as representing equality of outcome, fairness, positive rights, an expression of control, morality, a focus on philosophy, a results-oriented perspective, righteousness, virtue, and an evaluation of what is right versus wrong.

The most glaring challenge to the presented conceptual separation is likely related to the division between the common usage of the terms justice and fairness. Though it is normal for these terms to be used interchangeably, differentiating between their usage is not a new idea. This is because, quite simply, what is just may not be fair, and what is fair may not be just. As presented here, that is akin to saying that what is equitable might not be ethical, and what is ethical might not be equitable. The difference between the two might be best understood through their shared but divergent associations with the word equality. Fairness and ethics are assumed here to be closely related to ideas concerned with the construction of some equality of outcome.

Justice and equity are, conversely, related to ideas concerned with ensuring some equality of opportunity. It is also argued here that even for the common subcategories of justice - procedural justice, restorative justice, retributive justice, and part of distributive justice - are concerned with equity and equality of opportunity.

Foot Race Analogy. It may be helpful to understand the difference between equity and ethics through the analogy of a foot race between some large number of people. This metaphorical foot race would have a universal starting time and a shared finish line. What could possibly vary between the race participants is their starting position, their running speed, or even the path that they have to take while running this race. These differences could cause significant disparities in when each runner finishes the race, but changes made in the name of ethics or equity could alleviate some aspects of these disparities. The two values would be concerned with different features of the race experience and, if turned into actionable changes, influence different components of the race experience.

An emphasis on the ethical nature of this race would be concerned with running a race where everyone finishes at the same time or, at least, within an acceptable margin of difference. The goal of ethics would be to contemplate what would help make every runner have a fair chance at winning the race. It would be a focus on the result of the race and ensuring some equality of outcome that is desirable. Possible scenarios that would fit this view would involve making some runners wait until after the starting gun before they could leave their starting position in order to minimize the marginal differences in starting positions, give some runners a device that helps them run faster, require other runners to use devices that make them run faster,

or find some way to transfer the energy the inherently fast runners have to the inherently slow runners.

An emphasis on the equitable nature of this race would be concerned with runners completing courses with the same structure regardless of the starting position or speed of each runner. It would be expressing an interest in ensuring that there are no barriers to participation or competition for each runner. Each runner would be able to finish as far ahead of or behind any other runner, but each runner would be guaranteed to not have to run any hills, avoid any obstacles, or run with any burden that every other runner would not also have to endure. Such a concern for the equity of the race would allow runners to experience whatever successes or failures their own races would present them with, but everyone would have an equal opportunity to compete to the best of their ability without worry of some disparity being created by a uniquely imposed obstacle. The paradigm of justice looks at only a snapshot of the race, as opposed to the end results, because it creates a sense of duty for impartiality between runners.

This asserted distinction between the operationalization of the equity and ethics draws attention to matters of potential importance regarding the common use and conversational nature of those terms. The first noteworthy effect this distinction has on common usage relates to an alleged misuse of the phrase “equality of opportunity.” The claim here is that governance concerns that are commonly discussed as being expressions of a desire for equality of opportunity are actually masked considerations for equality of outcome. Said another way, equality of desired outcomes may masquerade as desires for equality of desired opportunities merely because of an emphasis on pre-outcome factors. However, in order for there to be a change in an outcome, effects must occur before that outcome, and this does not mean that those factors are then, by default, related to aspects of opportunity.

To reference the previously presented race metaphor, if equality of opportunity is focused on helping bring advantages to an otherwise disadvantaged group, and it is perceived as appropriate to create some disparity in treatment for that group, then the implicit goal of that action is to have a more equal result for the race. Such an approach is connected to creating a sense of equality of outcome. It is the desire to create that which is perceived as fair. “To be fair” is a term that pushes towards a conceptualization of what is right or wrong as the metric for determining what is fair. To determine an aspect of fairness is to express a moral preference and thus an ethical aspect of a decision. In sum, to have a sense of preoccupation with a disadvantage in starting position or running speed is to be oriented towards the outcome and thus the fairness, morality, and ethical nature of potential adjustments that could be made to help induce a desirable result for the race.

An accurate conceptualization of equality of opportunity cannot be concerned with the comparative preexisting starting position of individuals or their inherent capacity for progress because doing so would invariably imply a concern with the ending positions of those individuals and the mutually exclusive desire for equality of outcome. The way to actually achieve equality of opportunity in the race is to provide a sense of justice and equity in the chances for action that individuals are provided. This would be an orientation towards the in-race experience and preventing any racer from facing the imposition of new obstacles that are not also presented to every other racer. To have a sense of preoccupation with the chances for individuals to compete from their existing state and with their existing abilities is to be oriented towards opportunity. This would prevent barriers for people’s engagement in the race.

The second noteworthy effect this distinction has on common usage relates to the potential mischaracterization of distributive governance actions. A previously cited quote from

Norman-Major (2011) stated that two possible forms of social equity in public administration are concerned with the distribution and redistribution of resources to reduce inequalities and increase equality of opportunity. The position of this research is that, given the previously presented dichotomy between equitable and ethical concerns, there is no functional difference between distributive and redistributive efforts, and both are considered to refer to equality of outcome instead of equality of opportunity.

The key to understanding this interpretation is connected to the difference between negative and positive rights. The negative rights aspect of an equity-based decision has a distinctly different governance effect on a person than the positive rights aspect of an ethics-based decision. A negative rights influence would be the protection from interference or obligation, but a positive rights influence would impose a duty on others to provide something.

As interpreted here, to redistribute is to directly transfer something from one to another, but to distribute is to merely do it indirectly. Both acts occur through some type of force and sense of control, but the acts occur through a desire to create a perception of a fair situation. Force or control in this sense are not characterized as inherently malicious but rather aspects of some form of societal participation, though the degree of agreement or willingness to participate with such governance efforts may vary within a type of social contract.

If that interpretation has merit, then the two forms of social equity in public administration presented by Norman-Major (2011) represent a false dichotomy of governance action. The distribution of resources with some intent to alter an outcome is functionally the same thing as a redistribution of resources with some intent. All resources come from the same pool, so the distinction of the use of resources as distributive or redistributive is to some degree

inconsequential. To use the race metaphor again, this would be similar to saying, if such a thing was possible, to transfer units of speed from one racer to another.

To transfer via distribution or redistribution is an action imposed through positive rights, opposed to the negative rights expectation of inaction where nothing would be taken from one party to give to another. A governance decision to create an obligation to act, such as through an obligation for a disbursement of resources, is a manifestation of a positive right. This means that all distributive and redistributive efforts are related to ethical choices for what is right by way of the imposition of the effects of positive rights. This means that any reference to distributive and redistributive efforts would be more accurately characterized as a focus on equality of outcome, not opportunity. It also means that these activities labeled as aspects of social equity are really ethically-driven, and not equity-driven, actions.

The third noteworthy effect this distinction has on common usage relates to the modification or qualified forms of these core values. The qualifier mentioned here refers to the use of “social” in social equity or any other similar modifying or conditional terms applied to governance values. The assertion presented here is that any modified or qualified version of equity or justice is in reality likely just a perceived fairness achieved through an inequity. This interpretation comes from the perspective that an equity-driven determination of justice can be comfortable with the existence of inequality of outcome, but a qualified version of this value is the explicit imposition of moral preference or interpretations. In asserting this alleged distortion, this research does not intend to impart any judgment on the merit of actions taken from a qualified perspective. The purpose of noting this distinction is only as part of an effort to achieve the clarity and specificity necessary for operationalization of concepts used for identifying schematic lenses of governance.

The fourth and final noteworthy effect this distinction has on common usage relates to the intersection of equity and ethics. This work wishes to make the assertion that even though there is an alleged misuse or misapplication of otherwise distinct concepts (linked to governance schematic lenses) through the usage of certain terms, that does not mean that the values of equity and ethics do not have an important area of overlap. This is to say that just as how the balance or simultaneous maximization of the values of efficiency and effectiveness through the concept of “economy” can provide a potentially beneficial assessment tool for certain management objectives, a similar interaction might occur between equity and ethics. Conceptually, this area of overlap is assumed here to occur when there are dual objectives, such as balancing the equality of opportunity and outcome, or balancing justice and fairness. The need for such a dual consideration is believed to typically occur in matters of substantial judgment where the potential impacts of a decision support whatever deliberation is necessary in order to achieve that which is both just and fair. This area is assumed here to be that which can be identified as creating a sense of “moral obligation.”

Moral obligation, which is sometimes referenced in the discussion of core judicial concepts, is believed here to represent the intersection of equity and ethics. It is a challenge to seek both the correct and right decision. This is the foundation of an ideal legal system that works to seek that which a people identify as a righteous yet liberty-sustaining path. The reference in this work to moral obligation and its potential place in the larger landscape of governance decisions is not directly necessary for the construction of governance schematic lenses. A mention of moral obligation is merited in this discussion, as it is considered an important driving concept in real life and may guide the construction of societies. There is a presumption here that this concept of moral obligation is universally idealized in governance

matters and representative of the synergistic effect present when a decision is able to be made through some optimum evaluation of equitable and ethical considerations.

In summary, this research takes the stance that to be concerned with the ethical nature of a decision would be a distinct schematic approach and separate from any question of efficiency, effectiveness, or equity. This means that ethics should be considered to be its own core value, its own core schematic lens of governance, alongside the other E's of efficiency, effectiveness, and equity. This would allow it to properly receive its own, independent decision making attention and help justify the place of public administration efforts concerned with corruption or otherwise inappropriate behavior (e.g., Elcock, 2012). Taking this approach helps one avoid the complexities of social equity, with its inability to be adequately defined or applied, and realize that both aspects of that commonly proposed pillar are meaningful to the field, just in a different form. This approach also allows governance decision making to retain the important principles of equity while also acknowledging and adding the value of ethics as a core principle, which would represent the arguments of what is right or wrong.

Ethics. At this point it should be apparent that the significance of ethics as not just a likely pillar of public administration but as an important schematic lens for governance decision making. Others, like Peter Shergold, have viewed ethics as a core value of public administration alongside values like efficiency and effectiveness (Bishop, 2006; Shergold, 2014). Though its place alongside the other core E's of governance values might be a somewhat new conceptualization, the importance of ethics in governance far from a new idea.

Socrates, Plato, and Aristotle all viewed ethics as a necessary component of politics in order for a people to achieve real happiness (Makrydemetres, 2002). Socrates is considered the

founder of moral philosophy through his focus on ethics and the choice of the good (Rowe, 1976). Socrates believed that ethics was the process of rational deliberation that allowed one to achieve morality and make choices for what is good and right (Makrydemetres, 2002).

Despite its potential for immense complexity, the metric for which ethics is evaluated now is rather simple. Ethics is a functional understanding of that which is good in life (Vlastos, 1991). It is the social norms which guide public administrator conduct and decision making (Makrydemetres, 2002). Given this common interpretation, it has also been stated that a community has the right to have the highest standards of ethics maintained in governance efforts while public administrators look to create efficient and effective programs (Cameron, 2004).

Four Core Values. This analysis suggests that four core values (efficiency, effectiveness, equity, and ethics) are used for the formation of governance decisions. Discussions about core values, what they mean, where they show up in practice, and how they are measured are likely to be important components to studying public administration (Norman-Major, 2011). The emphasis on the proper operationalization of such terms used in this work is supported in part by the doctrine of New Public Management that has advocated for public administrators to make explicit the standards and measures they would use for performance evaluations. The reasoning behind this belief was that doing so would help the public understand if governance goals were met or not (Hood, 1991). Seeking the proper operationalization of concepts is also important for the construction of new ideas and the eventual statistical analysis of factors related to those concepts.

It is likely important to know both what each value of governance decision making represents as well as how it is expressed. This knowledge would also signify how a decision

maker using a particular schematic lens would assess an act of governance. A decision maker would need some form of criteria in order to know how much of their schematically-associated value was being adhered to in the particular governance matter. Furthermore, they might also need to be able to know what area of inquiry could provide more information about the details of such a criterion when some type of conflict or uncertainty arises. For instance, if certain decision makers were concerned with efficiency, they would assess a matter of governance by how efficient it is or could be expected to be. To do this, they would need to have some criteria to use as a principle-anchored metric for evaluating that level of efficiency, and they might also need to use some professional or academic body of knowledge in order to explore how the details are structured or applied. The following information attempts to provide this type of information about each of the abduced core values of governance decision making.

Efficiency. Efficiency is assumed to be best thought of as a ratio of inputs to outputs. Efficiency is asserted here as expressing how resources are transformed into some end product. It is an evaluation that measures capability and production. The study of efficiency is rather mathematical in nature, and, for governance, is most associated with the field of Economics. Specifically, it is likely connected to more rational ways of thinking such as statistical modeling or seeking a better resource usage ratio. It is not a value particularly concerned with the appropriateness, worthiness, or justification of the action.

Effectiveness. The effectiveness of any decision of governance is assumed to be evaluated by a ratio of intentions to outcomes. According to Cohen (1993), “The definition of effectiveness will vary with different organizational environments, different organizational types, and different

organizational goals” (p. 48). Overall though, effective decisions of governance are asserted here as those that have an impact, make a meaningful change, and/or achieve some type of desired results. The dominant area of inquiry for the study of effectiveness is likely, in its broadest sense, organizational theory. An organization is a form of a group that is designed for a particular purpose or goal. Having this group achieve some desired change in order to realize some particular result is at the heart of organizational theory. Measures of effectiveness provide the tools for assessing such outcomes. Although generally not discussed in quantitative terms, numerical measures are sometimes created for issues of governance. For example, the World Bank’s website discusses its “Government Effectiveness Index” which creates scores for governance across a variety of dimensions.

Equity. Equity is presented as representing the ratio of opportunity to injustice. It represents an individual’s interest in equality of opportunity and a perception of possessing the liberty to act in a manner similar to others through the prevention of certain externally imposed limitations. An emphasis on equity is expected to focus on the treatment people receive from governance efforts, the perceived uniformity of governance process and access, or the comparability of situations. Given its association with perceptions of justice, the dominant area of inquiry for the investigation of equity is assumed to be the area of legal studies. Specifically for public administrators, the study of administrative law is important to understanding procedural equity (Norman-Major, 2011).

Ethics. For decisions of governance, ethics should be thought of as a ratio of right to wrong. It is a concern for equality of outcome and ensuring the perception of fairness that can be

produced through the application of positive rights. It is a governance path that seeks righteousness and a focus on morality. The study of ethics is dialectical in nature and is best explored through the humanities and philosophy. Sheeran (1993) notes that philosophy plays an important part in our political system, and, although too often neglected in public administration, “Ethics in public service has become a major topic in the United States over the past twenty years” (p. 3). He goes on to say, “There are two main approaches to the teaching of ethics...the objectivist, and the interpretivist or subjectivist...The interpretivist approach is often called teleological theory. Subscribers to this theory offer no absolute standards for assessing right and wrong. The individual’s judgment in particular, unique cases constitutes the only criterion for what is right and what is wrong. In reality, this is “situation ethics,” whereby the situation dictates what a person should or should not do and the result is the right or ethical decision. The teleological approach considers only the consequences of human actions and makes judgment on these consequences. There are no rules, laws, or regulations to help in judging the consequences” (Sheeran, 1993, p.9).

Two Sets of Clues. The previous sections of this chapter identified two sets of clues for governance schemas: interest/positions and core values. The initial abductive logic for developing these schematic clues started implicitly with the surprising evidence that people presented with the same general pieces of information regarding some governance matter could come to different decisions. If different perspectives are presented for addressing governance matters, the existence of these different paths of perspective would be a matter of course if people were using different frames of reference for developing their decisions. This relationship is believed to occur because of the assumption that the differing filtration and evaluation

processes that come from different frames of reference would create diverging perspectives and views about a governance decision.

If there are then different views within a person or between people that could compete for dominance in a decision making process, then this competition represents a conflict that needs to be resolved in some way in order for a decision to be reached. Given that conflict resolution literature typically suggests finding a way to separate interests and positions in order to avoid one of the disputing perspectives to obtain a dominant stance, it was postulated in this research that the occurrence of dominance of some schematically derived frame of reference would represent the collapsing of interests and positions into being a single viewpoint. This singular perspective was labeled as an “interest/position” and represented a distinct frame of reference used in a nonrational governance decision.

It was assumed that each interest/position would desire distinct, identifiable, consistent, and enduring governance outcomes as result of being anchored by a schematically-driven conclusion regarding the evaluation of some governance options. The universality of a societal-level shared mental model then suggested that these frames of reference become functionally representative of the motivations for the vantage point of society that they embody for governance decisions. In this identity, these interest/positions would be expected to denote the type of action government should typically take or what kind of role the government should play while taking certain actions.

Therefore, if interest/positions are (1) to represent different views that come from schematically filtered information and evaluations, (2) to represent different desires for particular outcomes to occur as envisioned by those views, (3) to represent the different approaches to governance decisions in order to potentially achieves those desired outcomes, and (4) to be

emblematic of common and occupiable societal stances, then interest/positions are assumed to be a type of social institution relevant to governance. The identity of these interest/positions as social institutions was assumed to then be derived from the governing entity as well as the macro, meso, and micro levels of the people associated with that realm of governance. This resulted in the assertion, presented below in Figure 1, that the four core interest/positions of governance are the state, the everyone, the group, and the individual.

Interest/Position
State
Everyone
Group
Individual

Figure 1. Four core interest/positions.

An important component of the idea of interest/positions representing some perspective and corresponding desire for governance decisions is to know what those desires actually are. To have such desires is to have a vision of an outcome and a way of assessing if that vision has occurred. Such an assessment was assumed to require some type of criterion-based evaluation of matters, to see if what is considered to have worth, utility, or importance has happened or is expected to happen. These interpretations then imply the existence of a guiding value of governance for each frame of reference, and this would be fitting as societal institutions are

understood here as having values as a key aspect of their defining identity. This logic then suggested that another important aspect of understanding and structuring governance schemas beyond just that of interest/positions would be to understand what are likely to be the core values of governance.

To then complete step two of the analysis used in this research and fully identify the clues of the use of schemas in governance decision making, the core values of governance had to be abduced. As occurred with interest/positions, it was assumed that there were likely to be a small number of core values that are fundamental to governance decision making. The question that this research then confronted was where to look to identify such core values of governance, and, in order to answer that question, discussions and research concerning the values of public administration were looked to as a guide. The result of this search yielded the conclusion that the four core values of governance are efficiency, effectiveness, equity, and ethics. This search also yielded the likely evaluative foci and dominant areas of inquiry for each of these core values, presented below in Figure 2.

Value	Evaluative Focus	Dominant Area of Inquiry
Efficiency	Inputs vs. Outputs	Economics
Ethics	Right vs. Wrong	Ethics/Humanities
Effectiveness	Intentions vs. Outcomes	Organizational Theory
Equity	Opportunity vs. Injustice	Law

Figure 2. Core governance values, evaluative metrics, and dominant areas of inquiry.

Evidence Structuring

With these two sets of clues identified, the third and next step of the analysis is to structure this evidence. Since it is assumed that each schematic lens in a nonrational governance decision making shared mental model represents a purist view of a governance preference, the evidence should be structured in a manner that emphasizes such schematic frames of reference. These frames of reference are considered to be lenses that can be applied in a dynamic way, and that implies that variability in the identity exists not just between the schematic lenses but also within them. This means that the identified clues should be structured in a manner that demonstrate the diversity and multifaceted nature of the core governance views that have been identified.

The difference between schematic lenses is straightforward and means that an appropriate structuring of schematic lenses would have each lens represent only one interest/position or only one core value. Variability within schematic lenses though connotes an ability of each schematic lens to take on different forms while still maintaining its overall identity, purpose, and uniqueness compared to other schematic lenses. This would imply that schematic lenses may be able to be represented by not just interest/positions or core values but by either one as appropriate.

In regards to this potential, this is indeed how schematic frames are believed to operate. It is asserted here that schematic frames consist of both interest/positions and core values because it is assumed that these two elements are intrinsically related to one another. Since interest/positions are viewed here as a type of social institution that possesses values and are also viewed as representative of different desires for particular outcomes to occur as envisioned by those views, then the values are the mechanisms for articulating those desires. This connection then implies that each interest/position is associated with a particular value, and, together, each represent different facets of the same schematic lens. Because of these assumptions and conclusions, interest/positions and values are believed to be evidence of the use of schemas operating with a nonrational governance decision making shared mental model and are best structured for comprehension as four distinct lenses. Each lens is presented as row in the column below in Figure 3.

Interest/position	<Connection?>	Value
State	?	Efficiency
Everyone	?	Ethics
Group	?	Effectiveness
Individual	?	Equity

Figure 3. Exploring the connection between interest/positions and values.

Linkages Through Reconceptualizations

With the abductively derived evidence structured, the next and fourth overall step of the analysis is to link the different facets of the proposed schematic lenses. This is to be done by reconceptualizing different aspects of each existing component of the schematic lenses, which in this case are the interest/positions and core values, until a link between the components is established. These efforts help the overall identification of each schematic lens make more sense, maintain conceptual coherence, and reduce concerns for spurious associations.

If these different components are part of the same schematic lenses, then there will logically be relationships between the components as they will be existing as different versions of the same schema. With an overarching schematic framework acting as a scaffolding, each component can be reconceptualized in order for conceptual bridges to be constructed that link the schematic components of interest/positions and core values. Establishing these relationships will be done by looking more deeply into what the interest/positions want and what would motivate

someone looking through that schematic lens at the governance decision making world. Specifically, this will be achieved through the analysis of interest/position identity associations and then through identifying political philosophies which exemplify the schematic thought. The resulting structure can then be expected to show how the same schematic lenses are expressed differently across various areas of governance decision making. The schematic lenses would then be expected to represent different families of thought regarding the approaches one could take towards governance decisions.

Developing Identity Associations. Identity associations are presented here as the most salient characteristic of an approach to governance that each interest/position could be expected to exhibit. These are simple extensions of how each interest/position could be depicted in terms of the most motivating interest or the most illustrative consideration. The identity association of each interest/position is presented below and then shown together in Figure 4.

The State – Authority. In a decision of governance, an inherent identity that must be recognized is that of the entity doing the governing. Identified as “the state” here, this interest/position is concerned with exerting influence and power. This means that the identity most associated with the governance preferences of the state is “authority.”

The Everyone - Societal. The totality of the people in a given realm of governance are represented here through the interest/position of the everyone. This interest/position is concerned most with the overall well-being of this maximumly inclusive category of people. A societal focus is the identity association most representative of this interest/position.

The Group - Affiliation. The interest/position of the group recognizes the middle ground perspective between a societal-level consideration and an individual focus. Regardless of the size of the cross-section of people from which this perspective is anchored, the core features of that schematic filter are connected through a sense of association and membership. Therefore, a focus on affiliation is the most representative of the group interest/position.

The Individual – Self Interest. The interest/position of the individual represents that of a person and, for all intents and purposes, their immediate family unit/household. This schematic lens is oriented towards personal agency and well-being. Self-interest is believed to be the identity association most appropriate for describing this perspective.

Interest Position	Identity Association
State	Authority
Everyone	Societal
Group	Affiliation
Individual	Self-Interest

Figure 4. Developing the identity associations of each interest/position.

Interest/positions and their associated identities represent the core perspectives that people can adopt for governance decisions. In terms of schematic lenses and frames of reference, they inherently create a hierarchy of importance regarding the emphasis of some viewpoint. In a related but different way, values also categorize governance decisions. Values, as well as their corresponding mechanisms for evaluation, represent the core standards by which governance decisions can be assessed. As Kettl (2018) stated, the complexity of political matters forces necessary simplification that leads to the use of values as a tool for comprehension and assessment. Figure 5 shown below depicts the connection being sought between the different aspects of schematic frames.

Interest/ Position	Identity Association	< Connection? >	Value	Evaluative Focus
State	Authority	?	Efficiency	Inputs vs. Outputs
Everyone	Societal	?	Ethics	Right vs. Wrong
Group	Affiliation	?	Effectiveness	Intentions vs. Outcomes
Individual	Self-Interest	?	Equity	Opportunity vs. Injustice

Figure 5. Connecting the different aspects of schematic frames.

Although both interest/positions and values serve as useful clues for how schematic lenses are used within a nonrational shared mental model of governance decision making, there

is a bit of conceptual gulf between the two. Interest/positions are families of standpoints for articulating what matters for governance, but values are categories of criteria for assessing what matters for governance. The two are both important groups of ways to frame matters within a governance decision, but what connects them? It is asserted here that in order to offer a more seamless presentation of the identity of the proposed schematic lenses for governance matters, a conceptual connection between the two is necessary. This connection would need to represent a sort of thematic element that bridges the minor conceptual gulf between interest/positions and values. It is asserted here that political philosophies can serve this purpose.

Political Philosophies. Political philosophies are viewed here as philosophies that represent a particular theoretical and normative approach to the inherently political questions related to describing a person's place in and relationship to social structures and governing entities. Political philosophies are believed to be important and relevant to decisions of governance because they orient a decision maker's perspective for how they should develop the connection between the current and future conceptualization of governance. For their use in this work, it is assumed that each schematic lens is believed to be representative of a pure form of some political philosophy.

The use of political philosophies in this manner fits the abductive approach used for this research. The formulaic structure of the logic of abduction can help show how this happens. This is the surprising evidence observed, that there is an assumed linkage between governance interest/positions and values within a schematic frame. If it were true that certain political philosophies necessarily linked these two groups of perspective, then the connection between the two categories would be a matter of course. Hence, there is reason to believe political

philosophies serve appropriately as the link between interest/positions and values that exist within the same schematic lens.

The question then arises of how to select the political philosophy that best fits the alleged schematic relationship between one of the interest/positions and one of the values. Again, the use of abductive logic provides guidance. Using the same approach, one is able to assess existing political philosophies and establish that the use of one would, as a matter of course, lead to a particular interest/position. The same process could be done for governance values. The identification of four political philosophies that encompass both an interest/position and a value then indicate that those political philosophies serve as linkages between their accompanying interest/positions and values. Therefore, the objective of the next phase of the analysis is to identify political philosophies that create the necessary bridge between one of the interest/positions and one of the governance values.

Statism as the link between The State and Efficiency. The Cambridge and Merriam-Webster dictionaries both characterize statism as a philosophy that espouses a governance perspective where some governing entity has concentrated in it the ownership, control, and planning of a people's economic and industrial capacities. Statism is asserted here as representing the link between the interest/position of the state and the value of efficiency. It is worth noting that it is also asserted here that, in the reading of this section, statism is considered to be functionally similar to an authoritarian philosophy in many ways. Both are anchored by the control possessed and used by some governing entity, but the two do differ in that the authoritarian conceptualization is more likely to seek control of private matters and have the vision of state authority manifested in a particular political entity, as opposed to the government

as an abstract and variable concept for statism. Given this minor distinction assumed here, the use of statism was believed to have more potential in terms of the application of abstract concepts discussed with schematic frames.

Statism is related to the interest/position of the state because the philosophy views the state as being chiefly able and best suited to achieve acts of governance, and the interest/position is associated with the identity and application of the authority a governing entity can wield. This mindset is the belief that a certain governance vision can be best achieved by having a governing entity harnessing the full potential of the resources it has power over. Furthermore, it is not just necessarily the view that the governing entity would be most able to achieve some governance goal but also the view that it should be the entity to carry out such efforts.

Statism is related to the value of efficiency because the philosophy is concerned with the comparative advantage in outputs that can be gained by utilizing the governing entity's full reach and capacity, and the value is concerned with an evaluation of inputs compared to outputs between choices in a decision. Efficiency expresses how resources are transformed into some end product. It is an evaluation that measures capability and production. It is not a value particularly concerned with the appropriateness, worthiness, or justification of the action.

An orientation for the most efficient action would focus attention on acquiring the resources that direct the most activities and control the most contextual elements possible. Harnessing the full power of all that is governable is the most logical option for achieving this full capacity for getting the most outputs from a given level of inputs. The more a state entity is empowered, the more ability it has to harness the full capacity of its resources. It has more capability to get the most output from of a given aggregate social input than any other system. Conversely, other systems could be focused on matters such as individuals all making their own

choices, dominant groups jockeying for the helm of governance, or the community focusing on seeking the right move.

Communitarianism as the link between The Everyone and Ethics. The Encyclopedia Britannica characterizes communitarianism as representing political perspectives that emphasize the social and community concerns that factor into and influence matters of governance. Communitarianism is asserted here as referring to a philosophy which views the perceived needs of the community as paramount. Communitarianism is related to the interest/position of the everyone because both have a societal focus. A decision maker adopting a communitarian view would be interested in the overarching effect an act of governance would have on everyone as a whole and is chiefly concerned with the principled health of the society. The perceptual stance of the interest/position of the everyone is believed to allow the greatest perspective and ethical stance on the aggregate human condition.

Communitarianism is also asserted here as relating to the governance value of ethics because the philosophy is concerned with the societal impact of a governance decision, and the value is concerned with an assessment of what is right or wrong when it comes to what governance decision is made. The inherent relationship between these two is that the questioning of what is right or wrong happens against the backdrop of the influence of that evaluation on society. It is the question of what is right or wrong in the eyes of a community and for a people of a certain governance realm. When a society governs itself through the lens of communitarianism, it is assumed to at some point become concerned with seeking virtue. This view and pursuit also is assumed to operate with the assumption that since all the people associated with a governing entity are connected in some way, the effects of decisions of

governance are the concerns of all. This means that when an orientation towards the interests of society becomes the central focus and communitarianism becomes the dominant political philosophy, ethics plays an indispensable role in decision making.

Groupism as the link between The Group and Effectiveness. Groupism is characterized by the Oxford and Merriam-Webster dictionaries as the desire to belong to, think like, and act like a member of some group. In doing such things, a person would adopt the cultural pattern of such a group. Groupism is then asserted here as a philosophy that stems from the drive to associate with those that one can share an identity with and those that one is habituated to connect with. It is when the dominant perspective in a decision maker's mind is that of the group affiliation. Individual identities become superseded by identities that differentiate one's segment of people from another segment. Groupism is the driving political philosophy for those most associating with a sub-societal identity that is represented by the interest/position of the group.

Groupism is a philosophy that occurs in all cultures. It is particularly present in Western culture (Storey, 2006). Groupism supports the affiliation of the citizenry to some group identity because it assumes governance is enhanced when decision-making, at some level, is limited to specific representatives. It is assumed here that this perspective believes that the competition and cooperation that can occur between qualified and selected representatives of groups during decisions of governance can produce outcomes that are more effective than the abstract objectives of society as a whole, the potential mob rule of direct democracy, or the central planning of state-led initiatives.

The core value associated with groupism is effectiveness. What is considered effective is related to what voice was most able to articulate what an effective outcome looked like, which

was tied to the goal and subsequent vision of a particular entity, a group of some sort. The effectiveness of any decision of governance should be evaluated by a ratio of intentions to outcomes. According to Cohen (1993), “The definition of effectiveness will vary with different organizational environments, different organizational types, and different organizational goals” (p. 48). Ultimately though, effective decisions of governance have an impact, make a meaningful change, and achieve desired results.

A people concerned most with group orientation are focusing, to some degree, on the characteristics that make their group unique from other groups. As a result, such individuals are likely to be primed to be more aware of the subtleties that differentiate their group’s position on matters from the positions of other groups. To prevent any cognitive dissonance, they are then more likely to lean towards decisions that more closely resemble their group’s standpoint. These leanings are the desired intentions of governance decisions, and perceptual evaluations of governance outcomes are then assessed by their continuity with these prior intentions. In this frame of mind, a focus on governance effectiveness is paramount.

Liberalism as the link between The Individual and Equity. Liberalism is characterized by Oxford Research Encyclopedia as being representative of a political philosophy that advocates for liberty, equal rights, and limited, nonauthoritarian influence by governing entities. This philosophy is asserted here as being predominantly associated with the individual and the concept of self-interest. Fundamentally, the most important concept to the rationale of individuals seeking to pursue their self-interest is the ability to actually make such a choice. This need for individual empowerment reinforces the role of liberty as a fundamental component of

liberalism. Through it, everyone must have an equal opportunity to seek their goals or chance to achieve their desires.

The value of governance that most meaningfully associates with the political philosophy of liberalism is equity and its corresponding emphasis on equality of opportunity. In order for an individual to have the ability to pursue particular interests, governance actions must be oriented in a way that enables those pursuits to occur without undue and negative relative interference. Supporting the individual in such a fashion might not mean accessing the full potential of all people, having them engage in highly moral action, or using a strategy appropriate for acquiring what they desire. Nevertheless, the individual would be empowered, and the fully empowered individual is then on equal footing with all other individuals. This represents equity, and a governance system focused on liberalism seeks to ensure that perceptions of injustice are minimized while the perception of opportunity is maximized.

Multifaceted Lenses. The table presented below shows the four fully developed schematic lenses of governance presented by this work. Each lens is represented by a different row in the table. This means that each schematic lens can be identified by any of its components, such as the interest/position, the identity association, the political philosophy, the core value, the evaluative criteria, or, indirectly, the dominant area of inquiry. The ability to identify each schematic lens by any of these components may raise the question “why are schematic lenses, such as the ones presented here, multifaceted in nature?”

The answer to such an inquiry is that, simply, the schematic frames are multifaceted because they represent complex concepts in the mind of a decision maker. A schema is a cognitive tool that uses purposeful reduction in order to make an otherwise unwieldy problem

manageable, and, in this context where such schematic tools exist as part of a shared mental model, they are carefully curated mechanisms of interpersonal communication. Matters of governance may be convoluted in nature and require the decision maker to be able to make a nonrational assessment through whatever mechanism is the most advantageous for the scenario. This means that the form of a lens that is used in a decision is a product of the type of decision being made. In some situations, the lenses take on the form of competing metrics for evaluation, in other situations they are best characterized as the manifestation of competing political philosophies, and in other situations they might be best conceptualized as the representative ways for different components of society to express governance preferences. What is important to abstractly possess for the utilization of the idea of schematic lenses is that they represent unique ways of thinking that can take on different forms while still representing the same essential preference across different contexts. Said another way, the different components of schematic lenses represent the same fundamental and comparative preference and assessment of that preference, regardless of the form of the lens used in any particular situation. The different aspects of schematic lenses are presented together below in Figure 6.

Interest/ Position	Identity Association	Political Philosophy	Value	Evaluative Focus	Dominant Area of Inquiry
State	Authority	Statism	Efficiency	Inputs vs. Outputs	Economics
Everyone	Societal	Communitarianism	Ethics	Right vs. Wrong	Ethics/Humanities
Group	Affiliation	Groupism	Effectiveness	Intentions vs. Outcomes	Organizational Theory
Individual	Self-Interest	Liberalism	Equity	Opportunity vs. Injustice	Law

Figure 6. Complete schematic lenses used for governance decisions.

Application of Schematic Lenses

The fifth and final step of the analysis is the application of the schematic lenses. The function of this step is to further their description and conceptualization by applying them to different areas of decision making. To do this, decisions will be articulated through the use of examples constructed with only the application of individual schematic lenses.

The first area that these schematic lenses could be applied would be through a typical statistical application of a multiple regression analysis formula. In such an equation, a prediction line is created that specifies an intercept point, an error component, and slopes and coefficients for each of the included predictor variables. If each schematic lens had a metric, then for any decision one could include in a multiple regression information about each of those predictor variables. One could, however, functionally remove the use of three out of the four potential schematic lenses by setting three predictor variables to zero. This would mean that some prediction outcome variable would be a function of only the intercept, the error, and the slope and coefficient of that one variable. This would be an assessment of the impact of just that one lens of analysis on an outcome. It is assumed here that such a situation would represent a “pure” view of that governance preference, where no other governance schematic lens is relevant. Such pure views, as a concept, are helpful for understanding the next example of the application of governance schematic lenses.

The second example looks to show how the use of “pure” schematic lenses could be used to describe, compare, and contrast the variability that could occur in a real governance situation if different lenses were used. The governance example used in this example will be the digging of ditches for a realm of governance. The example will demonstrate how different schematic lenses would be expected to address this need. The different approaches will be anchored by

each of the four political philosophies in order to show how each path would decide to have the ditches dug.

The Statist Approach. If a statist perspective was taken, the government might establish the “Ditch Digging Organization” and fill its ranks with its people. From there it could employ a command and control approach to this organization of its people to ensure a highly efficient digging of ditches. Resources would be allocated directly and costs to the community would be minimized. This approach would maximize efficiency through state direction.

The Communitarianist Approach. If a communitarianist approach was adopted, a committee would be formed to find the best ditch diggers from within the people and have those folks direct their efforts towards the digging of the ditches. Presumably, the individuals selected would be best for the job, and their efforts in that realm would be offset by the participation of others in different areas. It would seem unethical for anyone other than the best ditch diggers to be the ones helping the overall health of the community by digging the ditches, and as such a highly ethical set of interactions would occur.

The Groupist Approach. If a groupist approach was taken, groups within the community would compete for the opportunity to be the ones to dig the ditches. It would be advantageous in some way for the group to earn this opportunity. High competition for this opportunity would likely lead to innovation in ditch digging practices. All things equal, the group that could dig ditches the best would win out over other competitors. Since the end result of this process could logically be a supremely dug ditch, it could be viewed as a highly effective operation.

The Libertarian Approach. If a libertarian approach was adopted, the choice of how to go about getting ditches dug would be left to the individuals with the most incentive to have the ditch dug. In this scenario, the government would pass off this responsibility/opportunity to the people. For those folks that were motivated enough to have the ditch dug, they could charter some entity to do this for them or do it themselves. All things equal, every individual would have as much opportunity as the next person to have a ditch dug in the manner they prefer or can obtain. Those not interested in having a ditch dug would not have to devote resources towards the process. With government stepping out of the picture for much of these transactions, private entities would likely take on the most significant role.

Kettl Comparison. The third and final example used here to show how these schematic lenses could be applied through “pure” views would be through the application of the lenses to the four styles of decision making in government presented by Kettl (2018). This means that Kettl’s typology could be reframed as different expressions of schematic lenses. This would alleviate the concern expressed by Kettl that these approaches are disparate takes on decision making in government and show that they are actually connected and all merely different schematic takes on the same decision making process.

1. A statist governance push for efficiency matches up with Kettl’s *fully rational approach*. This approach advocates for return on investment through the highest ratio of inputs to outputs, seeks the “best bang for a buck,” and dismisses any deviations as situationally-related error. An economic analysis would be the judge for assessing the

- level of efficiency achieved as calculations of various tradeoffs would have to be accounted for.
2. Kettl's *public choice approach* strives for the outcome with the most individually-perceived utility and self-interest. This would match up directly to the schematic frame of liberalism. The value of equity is expressed by every individual being able to follow the path that fits their own self-interest. A legal interpretation would be used to see if decision makers were properly given the right to pursue their self-interests in the same manner as others.
 3. Kettl's *participative approach* is like groupism in that the decisions are made by the people that know the information and will be affected by it. Effectiveness is the value that is sought, and the determination of what is considered the most effective is tied to the judgment of those who would know best. Similarly, such folks would likely be able to offer the best perspective on if the outcome of an action was the desired outcome and matched their intentions, which would be their evaluation of effectiveness.
 4. Kettl's *bargaining approach* is connected to the communitarianist philosophy/ethical approach. It is considered by Kettl as the alternative to rational choice. This would position the view, correctly, as being uninfluenced by what is the most cost-efficient choice or what particular individuals want, but rather by what is considered, collectively, as the "right" choice. The bargaining approach is anchored on political

support where decisions are the products of bargains. Power structures (of morality, ethical norms, cultural standards, capacity for influence, or sheer numbers of people advocating some position) could have the greatest influence on those bargains. The approach holds morality and evidence on an equal plane, unlike the rational approach. “Who wins depends on who has the strongest hand and who bargains most effectively” (Kettl, 2018, p. 25).

CHAPTER V

RESULTS

In this research, abduction has been used to address the pieces of puzzling evidence that exist regarding governance decision making. These puzzling aspects are believed to necessarily exist because they are the byproduct of governance decisions being processed in a particular nonrational manner. This conclusion is the abductive insight presented by this research. The purpose of the abductive insight is to “produce a rigorous chain of reasoning” (van Andel & Bourcier, 2002), but a very limited amount of utility could be gained if research stopped at the presentation of an abductively derived insight without giving it form or explanation.

The analysis section offered a structure to this abductive insight by developing and communicating the foundation of how the idea is formed. The procedure for finding the form of this abductively derived model started with identifying and structuring the schematic lenses that are used at the core of the nonrational governance decision making process. This was achieved through the collection of various governance concepts, the grouping of these concepts, the comparison of different features of evidence, and the structuring of associations. The result of these efforts was the presentation of a framework of the schemas used for decisions related to governance. Four core schematic lenses were identified, and how each could be used regarding a “pure” assessment of a governance decision was explored.

Given this schematic framework’s contribution to this analysis, this chapter will explore what results flow from those analytic discoveries. This chapter will show how the derived schematic lenses can be used together in a governance decision making process instead of operating independently as “pure” views. Specifically, this chapter will show how the decision process results in a choice being made among these schematic frames, and it will show how such

a choice represents the use of heuristics within the proposed nonrational shared mental model of governance decision making. Furthermore, this chapter will explore the assertion that the use of such heuristics represents the functional expression of governance ideologies, and it will propose what common ideologies might most accurately represent such patterns of governance decision making.

The Operation of the Nonrational Model

Showing how the proposed schematic lenses can work together presents a picture of how the nonrational shared mental model for governance decision making is believed to operate. Describing the formation of this nonrational model may best start with an analogy linking the components of schematic lenses to the components of DNA. This association is presented because of the assertion that large governance concepts are merely structures consisting of smaller, core components. Complex biological structures are the result of strings of DNA that can be arranged in a near endless array of possible combinations. These repetitive and discrete components act in a manner similar to how numbers form values in mathematics, letters form words, or elements form compounds. For these instructions to propagate, the DNA of a human is encoded in every cell of a person, and it has clear influences on the human body's structures and functions.

In a similar sense, the DNA of governance may be encoded in people's interpersonal mindsets as a result of evolutionary developments, the influence of social psychological factors, and the theory of mind. Just like biological DNA, the DNA of governance may have clear influences on the way we approach our construction of civilization, right down to the structures, procedures, and component organizations. The core schematic lenses presented in the previous

chapter are believed to function for the governance decision making process just like the key anchoring elements of DNA do for organisms. The within and between persons combinations of the expressions of these schematic lenses would then be the vehicle through which the governance variation occurs.

It is asserted here that the variation in governance decisions comes from the prioritization of schematic lenses, and this prioritization represents the heuristic stage of governance decision making's nonrational shared mental model. In order for some type of prioritization of schematic lenses to occur, multiple schematic lenses must be available for the decision maker to choose from and utilize. Accordingly, it is assumed in this work that any particular person can view any particular governance decision making situation through any of the four presented schematic lenses. It is also assumed that a person may do this explicitly or implicitly, and a person may do this knowingly or unknowingly.

This means that a person has the power and ability to not only assess any governance situation through any of the four lenses, but it also means that a person has some capacity to choose which lens to use. This may mean that a person can choose to ignore one or more schematic lenses while in the processes of making a decision, or it may mean that a person may deliberately choose to prioritize the perspective of one particular schematic lens. When any such action occurs and a schematic lens is prioritized, it implies that all aspects of that lens can be utilized, such as embracing the lens' interest/position, identity association, political philosophy, core value, or evaluative criteria.

It is also assumed here that when any such prioritization occurs, it is the expression of preference and a statement about what type of assessment matters most to that person. A prioritization of this nature is considered to be a statement of preference because when a person

subjectively says one thing is more important than another but both things are relatively equal in nature to each other, such as with the proposed schematic lenses, then the choice that person winds up making is little more than an expression of personal preference. A prioritization of this nature is also considered to be a statement about what type of assessment matters most to the person because the use of a schematic lens necessarily includes the type of assessment that occurs through that lens. This means that if a particular lens matters most to a person, then that also means that the core value that comes along with that lens is what matters most to a governance choice. In order to know if a particular value is achieved or not, the associated evaluative criteria for that core value becomes the primary assessment used by the person. As an example, if a person prefers efficiency over effectiveness, then they are far more concerned with achieving the highest ratio of inputs to outputs than any possible concern for achieving intended outcomes.

Beyond the prioritization of schematic lenses being an expression of preference or a statement about what type of assessment matters most, prioritization is also a form of conflict. It is a conflict because there is a winner (the prioritized schematic lens) and a loser (the schematic lens that has been considered to be a secondary concern or even no concern at all). It is asserted here that there are likely two reasons for why this prioritization conflict occurs. The first reason that such conflict occurs is that a person, while engaged in a nonrational decision making process, searches for a decision that is fast and frugal in regard to the expenditure of cognitive resources. It is assumed to be both a faster and a more frugal approach to make a decision through only one schematic lens instead of repeating the decision making process multiple times through the use of multiple lenses. The nature of nonrational thought processes would seem to support a streamlined and singular frame of analysis for making a decision.

The second reason for why such conflict occurs with the prioritization of schematic lenses relates to the need to prevent what might be thought of as cognitive gridlock. Such cognitive gridlock is conceived here as the inability of decision makers to make a choice because they are overwhelmed by the number of potential options and do not have a guide for determining which options might be better than others. Such a scenario of cognitive overload would be the worst of both the rational and nonrational worlds. There would be no nonrational schematic lens in place as a guide for evaluating options and, as a result, every possible decision that a rational analysis could conceive of would be considered as a viable option.

In order to avoid cognitive gridlock, the decision maker needs a sense of direction. The decision maker needs the use of a schematic lens in order for the mind to be able to articulate a vision for how a decision should look. The ability to use a single schematic lens offers the decision maker a unitary metric of assessment through which there is the primacy of one value, one criterion for evaluation, and one interest/position. For example, an embrace of the state-based schematic lens would help the decision maker by orienting them towards efficiency and all other aspects of that particular lens. Moreover, though a more deliberate decision making process might strive to optimize multiple lenses simultaneously (e.g., a focus on “economy” as it is conceived here in its perceived dual maximization of efficiency and effectiveness), such a deliberate process is believed to generally exceed the cognitive abilities of a single decision maker trying to utilize a fast and frugal nonrational decision making process. The potential calculations of the effects from different tradeoff combinations that could come with various approaches within a particular decision in order to achieve some Pareto optimality are assumed to be incongruent with a decision maker’s nonrational approach.

This assumed perceived need for a sense of direction highlights the two different types of trajectories a decision maker could select when confronting a decision. Both types of trajectories are anchored by an urge to identify better versus worse decision outcomes. The first trajectory that a nonrational decision maker could take would be to seek to identify the best expected option that exists within the evaluative focus of a single schematic lens. For example, a decision maker could look at the perceived efficiencies of all relevant and observable options and then select the choice that is the most efficient. This would be the “best” path as determined by the evaluative criterion of only one schematic lens. This would be the easier of the two possible trajectories.

The second trajectory that a decision maker could take would be to try to identify which schematic lens-derived path would be “best” when compared to any other lens. This is a far more difficult course to take. This trajectory would result in a number of pairwise comparisons between schemas. If each of the four schematic lenses is considered to be inherently equal and there is no objective measure for which one is “best” for the decision at hand, then any choice that is made between lenses is merely a matter of preference. This rather subjective expression of preference would not then be the only or even most substantial struggle a decision maker in this trajectory would be confronted with.

The real challenge would be that in order for a decision maker to have any sense of what is the “best” choice, a decision maker would have to look at each potential choice and evaluate how it performs in regards to the evaluative criteria of each schematic lens. This would essentially result in four “scores” for each potential choice. Then the decision maker would have to not only rank each choice by each of the four “scores” but then also compare the effect that different potential rankings within each domain of evaluation have on the overall interpretation

of some choice. If this approach was used, how would a decision maker be expected to interpret a choice that is considered the best through one lens of evaluation, the worst through another, and somewhere in between for the other two? Furthermore, how could any comparison between such “score scales” be achieved? Such a situation would be akin to the proverbial comparison of apples to oranges. Would a highly efficient but moderately effective choice be better than a highly effective but moderately efficient choice? Such comparison challenges, challenges that are evoked from the use of this direction of decision making, are believed to be how the state of the previously mentioned cognitive gridlock occurs.

To summarize this subsection so far, the variation in governance decision is believed to be the result of the use of heuristics that prioritize the use of governance schematic lenses. In order for a person to be able to make such a prioritization, cognitive access is needed to multiple schematic lenses and the person needs the capacity to choose among these lenses. This prioritization then becomes a statement of subjective preference and of the subjective comparative importance of the values inherent in each schematic lens. This prioritization is a form of conflict since it is a struggle between potential paths. The reasons for the existence of this conflict is that a singular schematic choice is needed in order for the decision making process to be fast and frugal and to prevent cognitive gridlock. To not be fast and frugal would be unfortunate to the nonrational decision maker, but to be stuck in cognitive gridlock would be fatal to the process. The importance of preventing such gridlock creates a concern for how to avoid it, and that is done by having a sense of direction and a unitary metric of assessment, and both come from the use of a single schematic lens. This need for direction highlights an awareness of the two decision making trajectories that the nonrational person is presented with. The first trajectory is to only use one schematic lens and evaluate each choice through the

perception of that lens in order to find the best choice. The second and problematic trajectory is to evaluate each choice through all available lenses simultaneously, be unsure of how to identify the best choice, and face cognitive gridlock.

So, given these conclusions, a decision maker looks to prevent cognitive gridlock by not having multiple evaluations of each choice and then trying to interpret the meaning of varied comparative rankings. The decision maker instead looks to be fast and frugal by using only one schematic lens. A decision maker then identifies some structure of schematic prioritization through the use of pairwise comparisons of subjective preference in order to select a dominant schematic lens. This expression of schematic dominance resolves the conflict by establishing a comparative prioritization between any two schematic lenses that happen to come into potential competition with one another within a governance decision making situation.

The choosing of one path over another, opposed to conducting a full analysis of all possible paths, is the function of a heuristic within a nonrational decision making process. As has been discussed, a heuristic serves as a tool or mechanism for problem solving. When a person must make a choice between two schematic frames, such as to choose between an emphasis on efficiency or an emphasis on effectiveness, a heuristic helps the person quickly make a satisfactory choice. This means that the creation of schematic hierarchies of any sense comes from the utilization of heuristics. Schematic lenses will filter and assess the information available within a decision, but heuristics will determine which lens to use for a decision.

But governance is a unique domain of decision making. It is not a standard decision making scenario where one decision maker makes a choice that affects just that isolated decision maker. Governance decisions are actions that necessarily affect multiple people, and, more accurately, likely affect in some way all people that exist within that particular realm of

governance. This is in part why the communication of a governance approach is assumed to exist as a societal level shared mental model.

There are then important implications to such a governance nonrational shared mental model's use of heuristics, heuristics that act as problem solvers when it comes to expressing the dominance of some schematic lens. A heuristic is not merely saying "this is the metric to use to pick the best choice." The subjective decision is also then imposing the assertion that "this metric is also better to use than a different metric that another perspective might bring to the decision process." This declaration is not the heuristic claiming that one schematic lens is the absolute best schematic lens to use in order to solve the problem and reach a decision, but rather it is the pairwise comparison that one schematic lens is comparatively better than another schematic lens.

In making such a claim, heuristics create systematic expressions of preference and dominance between schematic lenses. Because the components of schematic frames necessarily exist as a unitary lens to filter and assess decisions, the use of a heuristic is the expression that all aspects of one schematic frame are more important than all aspects of another schematic frame. This logic could be stated as "when it comes to some governance matter, the evaluative preferences of [schematic lens 1] are better than the evaluative preferences of [schematic lens 2]." As an example, this would mean that a governance heuristic would be analogous to expressing that the value of efficiency is more important to making a governance decision than the value of effectiveness. In a related sense, since the same sort of relationship could exist between other components of schematic lenses, such a heuristic example would also be analogous to saying that the interest/position perspective of the state is more important to making a governance decision than the interest/position perspective of the group.

Since a governance decision necessarily involves multiple people who could have multiple perspectives, any particular heuristic expression is the statement of preference for the dominance of one of those perspectives over another one of the potential perspectives. To the extent that some heuristic within the shared mental model achieves dominance (through agreement, acceptance, force, or otherwise), what is considered good from one perspective becomes also considered good for another perspective. This means that the views of one perspective are imposed on those originally embracing the other competing perspective. For a heuristic to act in such a way is to essentially state that what is good for one is good for another. This is how the decision of governance is achieved. To use the prior example focusing on interest/positions, this is to say that what is good for the state is good for the group. This is the selection of a schematic lens against a competing lens and specifying the metrics of choice evaluation. *Thus, to adopt a heuristic in a nonrational shared mental model of governance decision making is to say that a governance decision is achieved by coming to a conclusion about which set of perspectives and values explicitly takes priority over another set of perspectives and values.* It is assumed in this work that the best characterization of such a process and pattern of thought is a “political ideology.”

Exploring Ideologies

As discussed, it is assumed here that when heuristics occur for governance decisions, they function as the explicit expression of preference of one schematic lens over another. There may be many factors that influence whether a person uses a particular heuristic (an act that effectively prioritizes one core value of governance over another) instead of a competing heuristic (which may reverse the prioritization structure of those values). Identifying the factors

that predict the use of any one heuristic are beyond the scope of this work. Where this work will focus though is identifying the different forms of heuristics that can occur for governance decisions. This would imply isolating the different pairwise comparisons that can occur between schematic lenses and then giving each its own identity.

The identity given to each governance heuristic in this work will be a specific governance ideology. It is asserted in this work that any heuristic used in a governance decision is a decision pattern that is emblematic of a particular governance ideology. The term “ideology” is considered to be “a word of fundamental importance within many areas of social science” (Fagerholm, 2016, p. 138) and “can be understood as the basic unit of thinking” (Fagerholm, 2016, p. 139). Geertz (1964) described ideologies as “maps of problematic social reality and matrices for the creation of collective conscience” (p. 43). Fagerholm (2016) expanded on Geertz’s definition of an ideology because of a belief that ideologies are inherently connected to political matters and, among other things, biased values. From these motives, Fagerholm presented a new definition for an ideology as “an internally (and externally) coherent set of ideas [...] consisting of [...] biased thoughts related to the organization of power and status in a society” (p. 144).

This work is aligned with that interpretation of ideologies and particularly with the understanding of ideologies as expressions of biased values on a matter of governance. Ideologies represent preferences between competing modes of thought, and, in doing so, they resourcefully provide guidance for determining how the role of government should fulfill the intentions of those it serves. Moreover, governance ideologies are concepts frequently used in common discourse, and their use in this research has the added benefit of helping to connect existing ideas to the underlying nonrational processes presented in this research. Ideologies are

utilized and conceptualized in this work as known, meaningful, and useful terms for helping to articulate the implications of various combinations of the preferences derived from the prioritization of different schematically-linked political philosophies, interest/positions, and values.

Spatial Representations of Governance Heuristics

As previously stated, ideologies in this model are the expression of a preference when any two schematic frames come into conflict and one must become dominant over the other in order for a governance decision to be made. The implication of this cognitive mechanism is that a formulaic approach can be taken for describing ideologies, and otherwise complicated governance decisions are able to be conceptualized as simply the expression of preference between a few core concepts. Moreover, this process of expressing preference can occur in either direction. This results in ideologies not only being able to exist as formulaic expressions of preferences between two schematic lenses but also as bi-directional sets of outcomes. This means that schematic lens A could be dominant over schematic lens B, or the reverse could happen and schematic lens B could be dominant over schematic lens A. The manner in which such relationships are communicated then become differing ways of discussing preferences. In this work the articulation of these expressions of preferences are conceived as differing “domains of discourse.” These domains of discourse would communicate both what schematic lenses are considered relevant to that heuristic expression and which set of preferences takes a dominant position for the governance decision.

Heuristics can be derived that compare each of the four schematic lenses to one another, and each comparison can potentially occur in both directions of dominance. As will be shown

below, this means that there are twelve potential expressions of preference between core schematic frames or, said another way, twelve core governance ideologies. Each frame is presented below by its corresponding interest/position and an arrow with a line that connects that schematic frame to each other schematic frame. The numbers on the below in Figure 7 represent each governance heuristic/ideology. Using a formulaic approach, each domain of discourse articulating that heuristic's expression of dominance between schematic lenses can be presented through the base statement of "What is good for [one schematic frame, represented by interest/position], is good for the [another schematic frame, represented by interest/position]."

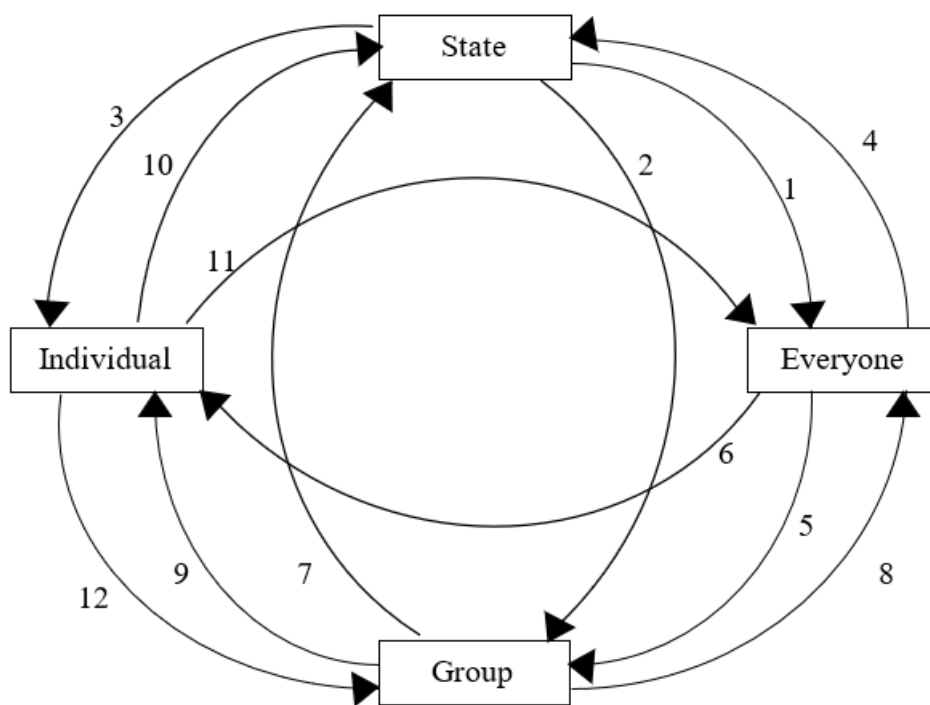


Figure 7. Possible relationships between interest/positions.

These twelve domains of discourse and expressions of dominance are the heuristic conceptualizations representing the power relationships between schematic lenses. Although the use of these schematic lenses can be described through any of their components, interest/positions and their corresponding identity affiliations may be most helpful for communicating how these relationships operate. Furthermore, since the descriptions of these relationships explain power dynamics between the competing perspectives, it may be helpful to visualize the competition between these inherently abstract perspectives as the struggle between more concrete entities. For the purpose of better understanding these power dynamics, examples of such actual entities can be generated. This can be achieved by identifying the entities that could be assumed to best characterize how the manifestations of the different governance perspectives would exist as real-life socio-political actors.

There are several entities, presented below in Figure 8, that could be considered characteristic manifestations of each of the interest/position-based perspectives. The authority focused interest/position of the state might be best characterized as a government, a ruler(s), or a sovereign nation-state. The societally focused interest/position of the everyone might be able to be portrayed as a population, a civilization, the public, or a community. The affiliation centered interest/position of the group could be symbolized as federated states, political parties, representatives, or tribes. Finally, the self-interested interest/position of the individual could be thought of as being a citizen acting through their own sense of agency, a family unit, or an individual entity of significant influence (e.g., a high capacity individual actor or an organization which represents those singular intentions).

<i>Perspective</i>	<i>Possible Manifestations</i>
State/Authority	government, ruler(s), sovereign nation-state
Everyone/Societal	population, civilization, public, community
Group/Affiliation	federated states, political parties, representatives, or tribes
Individual/Self-Interest	citizen, family, surrogate or proxy entity of singular perspective

Figure 8. Characteristic manifestations of each of interest/position-based perspective.

This work will now explore the twelve interactions between schematic frames that are depicted by the above figure. These ideological positions are presented together at the end of this section in Figure 9.

1. When what is good for the state is good for everyone, it represents totalitarianism.

The heuristic that establishes the preferences of the state over the preferences of the everyone creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a societal focus and instead using the state's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to authority, are efficient on an aggregate level, and support the philosophical perspective of statism.

Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be ethical, support society's desires, or acknowledge the philosophical perspective of communitarianism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the state's interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the everyone. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of authority with the preferences of society that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a totalitarian governance ideology.

The Merriam-Webster dictionary describes totalitarianism as the "centralized control by an autocratic authority," and the Encyclopedia Britannica states that it is a system that "seeks to subordinate all aspects of individual life to the authority of the state." In a totalitarian system, the government can control all components of citizenry behavior. The directive of the state is the ultimate deciding factor in governance. Decisions are made through and for the state. The ramifications of these decisions affect the entire citizenry. This citizenry is treated as a unitary organism believed to serve as the able body that is controlled by the mind of the totalitarian leadership. The influences of government are used for the betterment of the state. The individual and group are only attended to indirectly. The individual and group perspectives are only of concern to the extent that the collective mass remains productive and useful in accordance with the preferences of the state. If the citizenry supports such a system, it likely does so because of the positive perceptions of matters related to security, structure, unification, or a sense of purpose. In keeping with an emphasis on efficiency, the state strongly rejects any action not in

alignment with its overarching objectives. To the extent the leadership is perceived as benevolent and oriented towards the betterment of the citizenry, the system is upheld.

2. *When what is good for the state is good for the groups, it represents feudalism.*

The heuristic that establishes the preferences of the state over the preferences of the group creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests and decisions are achieved by suppressing the preferences derived from a group focus and instead using the state's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to authority, are efficient on an aggregate level, and support the philosophical perspective of statism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be effective, support a group's desires, or acknowledge the philosophical perspective of groupism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the state's interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the group. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of authority with the preferences of affiliation that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a feudalistic governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize feudalism as a governance system where groups of people serve highly ranked lords by fighting and working

for them in exchange for state support and protection. In a feudalistic system, the government directs all aspects of group behavior. Led by some form of unitary leadership from the state, guidance is delivered directly to the citizenry through some form of group leadership. Such group leadership can represent cross sections of people based on race, gender, religion, local governments, geographic regions, or the like. The individual is not of concern as the group representative serves as the conduit for all of direction and governance mandates. The individual is irrelevant as the group representatives provide all of the reach necessary for the state. The influences of government are used for the betterment of the state. This system is apt to benefit the citizenry through the state controlling economic, political, and social order. The representatives gain by being rewarded for their level of management. The state welcomes the ability to handle all affairs and directives through the societal subset of governed people. The state disapproves of any independence which affects the perceived efficiency of the system or creates perceptions which challenge its stability.

3. *When what is good for the state is good for the individual, it represents fascism.*

The heuristic that establishes the preferences of the state over the preferences of the individual creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from an individual focus and instead using the state's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to authority, are efficient on an aggregate level, and support the philosophical perspective of statism. Furthermore, it makes these decisions by explicitly suppressing concerns for the self-interested

aspects of decisions, desires for equity, or the philosophical perspective of liberalism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the state's interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the individual. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of authority with the preferences of self-interest that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a fascist governance ideology.

The Merriam-Webster dictionary characterizes fascism as a form of governance that puts the state and its leadership above the individual and has a particular willingness to assert such a system through the "forcible suppression of opposition" as necessary. The Library of Economics and Liberty describes fascism as "an economic system, fascism is socialism with a capitalist veneer." Benito Mussolini, the commonly acknowledged founder of Italian fascism, famously stated that governance via fascism could be thought of "All within the state, nothing outside the state, nothing against the state." This comment represented the supremacy of the governing entity and the necessity of individual adherence to state directives.

In a fascist system, the government directs all aspects of individual behavior. The system believes in a need for strong solitary leadership of both personal and societal operation. The state believes that it operates best when it governs a people possessing a culture directly oriented towards the state's perceived best interest. The state believes culture is a collective phenomenon rooted in the hearts and minds of all individuals, and, as such, the state is directly concerned with the views, values, perspectives, and patriotism of its people. It focuses not on the overarching

cultural consciousness of a people but rather believes in maintaining a strategic advantage from addressing the individual directly. The state attempts to foster a strong sense of loyalty in the individual for the state objectives. The system believes that, when operating optimally, all is possible because all individuals accept the state's goals as truth to the extent that they are willing to make virtually any sacrifice. With such collective devotion and motivation, the state is confident in its capacity. Reciprocally, the individual finds solace in taking such perspectives because, in a game theory-type sense, as long as all other individuals believe in the purpose of the state, that individual wins. This perspective gives incentive for the individual to rationalize the necessity of the eradication of all views in opposition to the state, be they foreign or domestic.

4. *When what is good for everyone is good for state, it represents communism.*

The heuristic that establishes the preferences of the everyone over the preferences of the state creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a state focus and instead using the everyone's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to societal concerns, are ethical on an aggregate level, and support the philosophical perspective of communitarianism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be efficient, support the state's desires, or acknowledge the philosophical perspective of statism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the everyone interest/position to determine what is best

and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the state. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of society with the preferences of authority that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a communist governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize communism as a governance system where the public owns all property and controls all methods of production and, in doing that, eliminates private property, eliminates profits, and allows society to achieve the final stage of Marxist theory where the state has functionally withered away to nothing. Commonly considered an approach opposite to capitalism, communism advocates communal control instead of control by a particular ruling individual, a group such as a ruling class, or a strong nation-state government. In communism, the end goal is an extremely weak state entity. Societal pressures work to ensure that no individual or group takes advantage of the righteousness of the collective community.

In the communist system, actions of governance by the state are the product of, and perceived as for the benefit of, the entire citizenry. Since the citizenry views itself as the sole entity responsible for the direction and betterment of the state, it does not place a particular importance on the individual nor the group. In such a view, individual liberties, property, or wealth are irrelevant, and there is similarly no place for divisive group identifications. With everyone directing the state, all are believed to be collective participants in the direction of the state. Individual or group competition is substituted for organizational directives from the state aimed at the improving the communal good. The citizenry embraces this view as it is believed to

bring everyone up together by offering security and the needs of life without intergroup strife. Low production is considered an acceptable byproduct of a society that is optimally ethical. In communism, the state is a tool for maintaining this communal perspective, and as such it is granted the authority to combat individuals or groups which challenge the communal orientation.

5. *When what is good for everyone is good for the group, it represents socialism.*

The heuristic that establishes the preferences of the everyone over the preferences of the group creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a group focus and instead using the everyone's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to societal concerns, are ethical on an aggregate level, and support the philosophical perspective of communitarianism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be effective, support a group's desires, or acknowledge the philosophical perspective of groupism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the everyone interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the group. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of society with the preferences of group affiliation that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a socialist governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize socialism as the transitional stage between capitalism and communism where there is some level of societal control of the important means of production, societal ownership of certain property, and societal influence over the distribution of goods. This ideology views governance as a tool for ensuring that citizens have what they need in order to produce and survive without succumbing to the negative influences of any particularly advantaged or empowered group. The perceived desirability of this approach relates to the assumed outcomes that have all members of society free from the constraints of their often class-derived group and free from the competition between groups that creates gradients in rewards.

In the socialist system, actions of governance should control and constrain the influences of the group for the betterment of the overall citizenry. Again, the most salient group is social class, but all previously stated social groups apply. The socialist system aims to highlight and emphasize where such groupings occur, even if they are otherwise intangible to the individual or in the eyes of the state. The focus of this system stems from a belief that imbalances across groups occur, and the occurrence of such an imbalance is detrimental to everyone. The perceived benefits of the system include a balanced distribution of resources and a heightened societal sense of ethics. In doing so, perspectives geared towards the advancement of the state or the advancement of the individual are disregarded.

6. *When what is good for everyone is good for the individual, it represents collectivism.*

The heuristic that establishes the preferences of the everyone over the preferences of the individual creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and

decisions are achieved by suppressing the preferences derived from an individualistic focus and instead using the everyone's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to societal concerns, are ethical on an aggregate level, and support the philosophical perspective of communitarianism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be equitable, support individual desires, or acknowledge the philosophical perspective of (classical) liberalism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the everyone interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the individual. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of society with the preferences of self-interest that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a collectivist governance ideology.

The Encyclopedia Britannica describes collectivism as a governance system where “the individual is seen as being subordinate to a social collectivity.” The Merriam-Webster states that it is an “emphasis on collective rather than individual action or identity.” In the collectivist system, actions of governance should control and constrain the individual in order to maintain some greater communal good. Group affiliation receives significantly minimized importance, and the state is disregarded as being merely a tool of operation and not indicative of the true potential and purpose of a people. Individual liberties, property, or rights are valued only to much as they are aligned with the objectives of the citizenry as a whole, regardless of how articulated or formulated these objectives happen to be. The perceived benefit of such a system is

a continued communal contribution to a greater societal good. In pursuing such a goal, the value of group affiliations or state action are diminished.

7. *When what is good for the group is good for the state, it represents republicanism.*

The heuristic that establishes the preferences of the group over the preferences of the state creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a state focus and instead using the group's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to affiliation, are effective on an aggregate level, and support the philosophical perspective of groupism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be efficient, support the state's desires, or acknowledge the philosophical perspective of statism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the group's interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the state. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of group affiliation with the preferences of state authority that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of the governance ideology of republicanism.

The Cambridge dictionary characterizes republicanism as governance through representatives. These representatives are presumably leaders or delegates from some group,

such as a geographic region. The Encyclopedia Britannica states that republicanism features a balance of freedom and participation. This approach seemingly allows groups to work together to direct governance through representatives while also maintaining some desired level of separation between groups outside of those collaborative duties. These features contribute to the adoption of a governance structure known as a republic.

In a republic, the governance actions of the state are determined by the decisions of group representatives. The preoccupation with representatives overshadows a focus on the concerns of the citizenry as a whole, and it also overshadows the voice of the individual by having their participation occur through the conduit that is their representative. The representative may be chosen by or for the individual. The state acts when a sufficient influence from group representatives occurs. The perceived benefits of such a system are related to a perception of effectiveness of governance, a sense of comfort attributed to an assumedly representative group affiliation, and a belief that decisions of governance are made by more qualified, willing, and able individuals than the general public. In applying such a system, an individual may experience a sense of helplessness from not perceiving the state as being accountable specifically to them. The society as a whole may become frustrated by the lack of cohesion across the republic and the lack of progress that results from it.

8. *When what is good for the group is good for everyone, it represents federalism.*

The heuristic that establishes the preferences of the group over the preferences of the everyone creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a societal focus and instead

using the group's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to group affiliation, are effective on an aggregate level, and support the philosophical perspective of groupism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be ethical, support societal desires, or acknowledge the philosophical perspective of communitarianism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the group interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the everyone. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of group affiliation with the preferences of society that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a federalist governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize federalism as the sharing of governance power between a centralized authority and affiliated yet distinct subdomains, such as provinces, states, territories, or regions. The Encyclopedia Britannica describes this governance system as maintaining overarching stability by creating required policies for all but allowing for variation in the implementation of those policies. Such a process allows group representatives to determine governance matters for everyone while also exhibiting a sense of deference to the groups by allowing for autonomy of implementation.

In a federation, groups are self-governing for the administration of governance aimed at enhancing the lives of everyone associated with the union. Group affiliations may be multiple entities coming together across geographic locations, ethnicities, cultures, or the like. A strong

state presence is substituted for a group centered collective, and the individual is relevant only to the extent they influence their group. The rights of the individual are uniform across groups if group representatives deem it beneficial. The perceived benefit of such a system is a balance of limiting overarching state entity affiliation, maintaining the valued group identity, and enhancing the outcomes of the collaborative society. In such a system, the individual is potentially subjected to the preferences of other unaffiliated groups.

9. *When what is good for the group is good for the individual, it represents tribalism.*

The heuristic that establishes the preferences of the group over the preferences of the individual creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from an individualistic focus and instead using the group's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to group affiliation, are effective on an aggregate level, and support the philosophical perspective of groupism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be equitable, support individual desires, or acknowledge the philosophical perspective of liberalism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the group's interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the individual. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of group affiliation with the preferences of self-interest that could complicate

decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a tribalistic governance ideology.

The Merriam-Webster and Cambridge dictionaries characterizes tribalism as the tendency for strong in-group loyalty by individuals where the group affiliation is prized above other identities. In tribalism, group needs are put ahead of individual desires, and this means that the group affiliation governs the actions of the individual. Little to no affiliation is identified by the individual to a larger state or community. Individuals have influence to the extent that they become group leaders. The perceived benefits of such systems are related to an inclination for localized preferences as well as a sense of intimacy with and within the group during various pursuits of progress and happiness. In such a system, the inherently restricted group size creates limited abilities for internal and external actions of governance. Power is diminished due to an extreme lack of focus on the existence and capability of the state, and larger social goals are unable to be efficiently pursued.

10. When what is good for the individual is good for the state, it represents democracy.

The heuristic that establishes the preferences of the individual over the preferences of the state creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a state focus and instead using the individual's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to self-interest, are equitable on an aggregate level, and support the philosophical perspective of liberalism. Furthermore, it makes these decisions by explicitly suppressing concerns that

decisions be efficient, support state's desires, or acknowledge the philosophical perspective of statism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the individual interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the state. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of self-interest with the preferences of authority that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a directly democratic governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize democracy as a governance system where power is vested in the common people and majority rule determines state action. There is a strong sense of equity between all people regardless of their position in society or group affiliation. In a sense similar to communism, full realization of democracy can create a weakened state, and this can happen with democracy since authority is subjected to the will of the majority of individuals. In this sense, the will of the majority differs from a societal focus since it is the expression of power that comes from one side of an issue simply having greater numbers, opposed to a societal focus on the selection of the most ethical choice for addressing the issue at hand. Also, since this majority can consist of various cross sections of group identities and since members of the same group could be on different sides of an issue, a democratic majority is not considered a group as it is understood in other contexts.

The ideological reference to democracy here is meant to represent full, direct democracy, where, for example, a government is directly controlled by choices selected through the votes of its citizens. Democratic processes happening (in any form of governance) don't necessarily mean

full, direct democracy is occurring. Democratic practices can include the collection of the votes of certain individuals, but the meaning, impact, and implications of those voting structures can vary. This potential variance suggests that democratic practices can be utilized in many, and potentially all, governance ideologies presented in this work. Conversely, direct democracy is the process of having individual votes count directly towards some governance decision outcome without the imposition of any filtering mechanism (e.g., representatives, electoral regions, etc.) and majority rule generally wins the day.

In a governance system lead by a democratic ideology, the majority determines the state's acts of governance. Attention to group affiliations or the overall society as a whole may be of relevance in some contexts, but the attention of the system is focused on direct participation of the individual. Group representatives are viewed as inhibiting effective governance, and societal concerns are not necessarily the focus of consideration since the will of the majority is believed to be an adequate and efficient proxy for that which represents some otherwise abstract and elusive goal of the society as a whole. The perceived benefit of such a system is the sense of an adequate possession of rights and preferred options through the assumed ability to participate directly in state affairs. In such a system, mob rule can run rampant without the safeguards of group representative decision making, and the overarching societal objectives may never reach their necessary prominence if their impact is too conceptually distant from an individual's focus.

11. *When what is good for the individual is good for everyone, it represents anarchy.*

The heuristic that establishes the preferences of the individual over the preferences of the everyone creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and

decisions are achieved by suppressing the preferences derived from a societal focus and instead using the individual's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to self-interest, are equitable on an aggregate level, and support the philosophical perspective of liberalism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be ethical, support society's desires, or acknowledge the philosophical perspective of communitarianism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the individual interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the everyone. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of self-interest with the preferences of society that could complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of an anarchist governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize anarchy as a sense of lawlessness and the universal lack of societal controls. Society is not governed by group representatives or state authority but individualized and voluntary actions. Hirshleifer (1995) defined anarchy as where the actions of individuals are unregulated but, unlike commonly conceived, society is not plagued by chaos but instead exists through phases of spontaneous order. In anarchy, each individual is (figuratively) on an island, and it is believed that individuals should pursue whatever means they see fit. The assumption accompanying such a system is that the culmination of individual intrinsic and extrinsic motivations will be more beneficial than some state, societal, or group coordinated initiative. Since the influences of social organization

are perceived as inhibiting progress, group affiliations or contributions to the state are minimized. This ideological orientation, lacking the structure of other systems, can allow for great gains or losses to occur. With the role of the group and state diminished and a pervasive sense of comfort with risk, anarchy can enable a sense of lawlessness, unbridled risk, or uninhibited action.

12. *When what is good for the individual is good for the group, it represents capitalism.*

The heuristic that establishes the preferences of the individual over the preferences of the group creates a domain of discourse between those two corresponding schematic lenses. Governance decisions are contextualized as a discussion between these two sets of interests, and decisions are achieved by suppressing the preferences derived from a group focus and instead using the individual's preferences for determining the best choice for some act of governance. This implies that decisions are made through identifying the options that most defer to self-interest, are equitable on an aggregate level, and support the philosophical perspective of liberalism. Furthermore, it makes these decisions by explicitly suppressing concerns that decisions be effective, support a group's desires, or acknowledge the philosophical perspective of groupism. This heuristic is the adoption of a governance problem solving approach that is concerned with using the perspective of the individual's interest/position to determine what is best and explicitly supporting the notion that this perspective is more important than the perspectives and preferences that come from the interest/position of the group. This heuristic is useful because it resolves any potential conflict that could occur between trying to reconcile or balance the preferences of self-interest with the preferences of group affiliation that could

complicate decision making and potentially cause cognitive gridlock. It is asserted here that such a heuristic would be emblematic of a capitalist governance ideology.

The Merriam-Webster and Cambridge dictionaries characterize capitalism as a system where profit-driven and competitive markets are navigated by private and corporate actors that own capital goods and the means of production. This ideology is the antithesis of governance systems where the state or society own or control production and wealth. It is governance through the relative lack of such restrictions. The Encyclopedia Britannica states that the markets that exist within capitalism are guided. This guidance likely exists as regulations of various types since ensuring market competition may require, in some manner, regulation.

In a capitalist system, the group is uniquely identified by class, participation, ability, and realm of interaction. Individuals receive the most benefit from actions of governance that promote the utility gained from the interactions within and by their own group. Groups may be best conceived of in this realm as market sectors, and the actions of various individuals determine the overall growth or failure of that market sector. Individuals look to advance the utility that can be gained from their group's marketplace. The perceived benefits of capitalism include rewards by merit and action, maximum progress through competition driven innovation, and personal gain. In such a system, the state and society as a whole are considered to be entities that will benefit from the individual preferred actions that benefit the growth of that individual's group. With a diminished emphasis on the state and society, as well as the necessary competition between individuals and groups, capitalism may confront questions of ethics, an inability to effectively promote the social good, and forces which prevent the efforts of the state to achieve some non-marketplace affiliated objective.

Summary

This chapter started by building off of the particular structuring of schematic lenses provided by the analysis section. That structure offered four schematic lenses that represented “pure” assessments of governance decision making. This chapter then explored what results could be generated from those analytic discoveries when the nonrational decision making process required those “pure” schematic views to interact with one another instead of operating in isolation. This stage of the nonrational decision making process is where choices are made and schematic lenses act like components of DNA for forming different governance outcomes.

Those choices represented the use of heuristics and helped present a picture of how a nonrational shared mental of governance decision making is believed to actually function. Furthermore, those various types of choices between the four schematic lenses produced twelve domains of discourse and expressions of dominance. Those heuristic conceptualizations were asserted as representing the different forms of power relationships between schematic lenses and effectively performing as expressions of common governance ideologies. The complete nonrational process of schemas and heuristics working together for governance decision making is then able to be presented graphically in Figure 9. Given these abductively derived inferences, the next chapter will explore the implications and applications of those developed concepts and relationships.

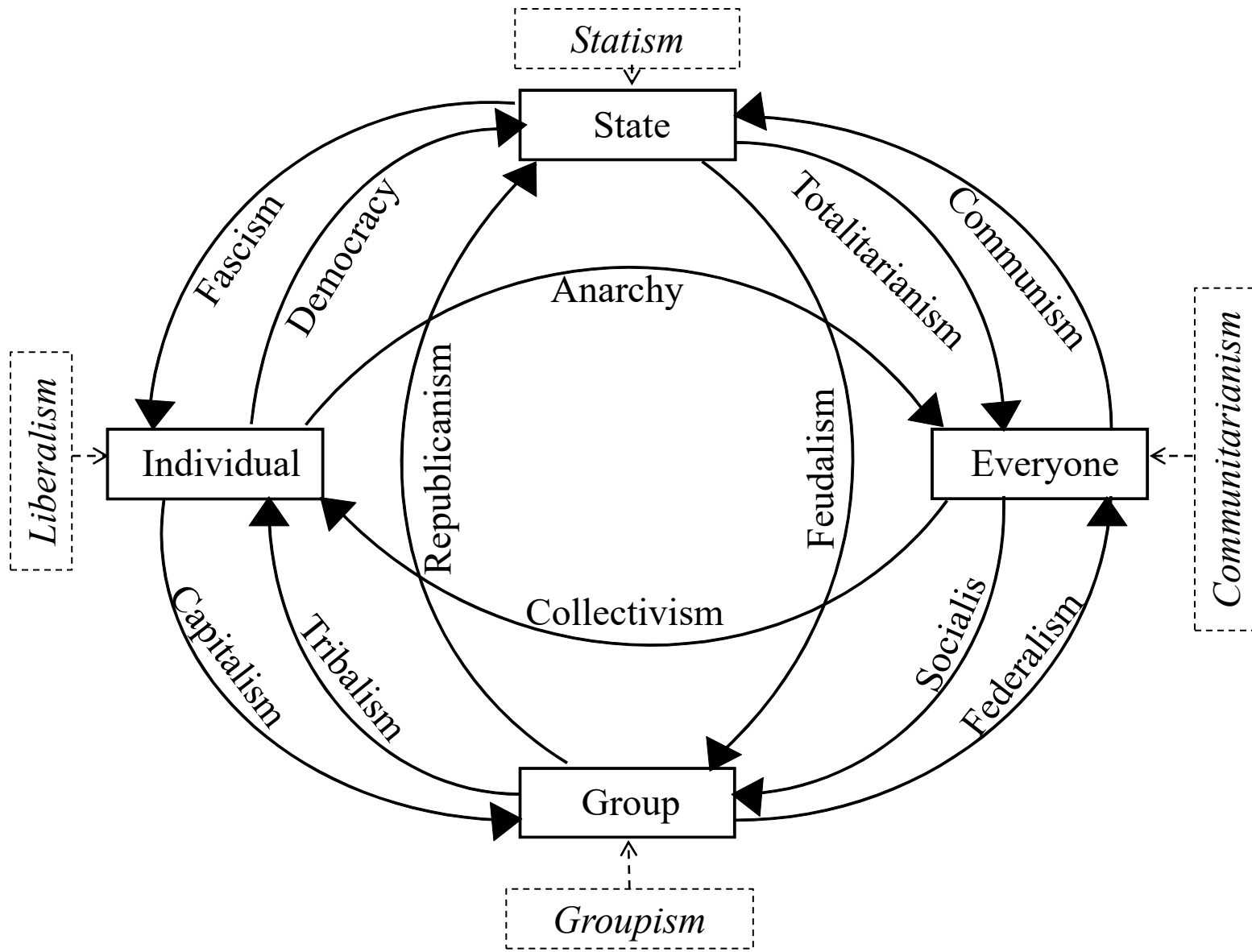


Figure 9. Core ideologies associated with governance decision making.

CHAPTER VI

DISCUSSION

This chapter will achieve three objectives. First, it will summarize the approach taken by this research in response to the question of “How are governance decisions formulated?” Second, this chapter will describe the theoretical implications of the model that was developed to answer that research question. Third, this chapter will present various opportunities for the application of the conceptualizations developed in this research.

Research Approach

The field of Public Policy and Administration is heavily influenced by the decisions that individuals make regarding matters of governance, but up until this research there was no model for sufficiently conceptualizing how these decisions might be made. Consequently, the goal of this research was the creation a nonrational shared mental model for governance decision making. The pursuit of this goal was accomplished with the intention of also achieving four particular objectives. The first objective was to identify a more accurate representation of a person’s thought process for governance than what a rational model could offer. The second objective was to create a model that addressed the interpersonal nature of governance decisions. The intent in doing this was to allow for decisions to be made in the mind of each individual but also accommodate the necessary level of communication and conceptualizations needed for multi-person processes to occur. The third objective was to develop a more dynamic set of governance possibilities than can be offered by the more simplistic spectrum-based models of purely politically-anchored governance models. The fourth and final objective was to foster a

new avenue for analyzing governance desires as a result of the conceptualization derived from the framework of and relationships among the ideas presented in this model.

This process achieved the aforementioned goal and objectives through three stages. The first stage conducted an analysis that abductively derived the schematic lenses used in governance decisions. The second stage interpreted the results of how those schematic lenses would be utilized in real-life decision making processes through the use of heuristics. These heuristics were believed to be best understood as the functional and formulaic representation of how governance ideologies operate. The third stage was to accumulate the effects of the various schemas and heuristics into one comprehensive and interconnected nonrational shared mental model of governance decision making.

Theoretical Implications and Applications

There are a number of potential theoretical implications and applications of this research. In this discussion, these implications and applications will be divided into four categories of showing how they provide benefit. The first category explores how these concepts can help Public Policy and Administration researchers by exposing new areas of cognitive mechanisms to investigate. The second category explores how these concepts can help the average person interact with governance more successfully. The third category explores how these concepts can help public administrators understand and achieve various governance goals. The fourth and final category explores how these concepts can help bring about forms of governance that are a better perceived fit for those affected by a particular governance decision and potentially fostering both subjective and objective interpretations of “good governance.”

The first category of discussion regarding the theoretical implications and applications of the ideas presented in this research explores how these concepts can help Public Policy and Administration researchers by exposing new areas of cognitive mechanisms to investigate. This section will address a few different subjects. It will cover how the concepts within this study could be used for creating individual assessments, the possibility of moderating and mediating variables, and the potential impact of this research on the structuring of the field of Public Policy and Administration.

When it comes to understanding individuals and their role in governance, this study opens an important line of research about the influence of one's values and the use of mental shortcuts as mechanisms for governance decisions. The primary manner of achieving this would be through the creation of an assessment tool that evaluates an individual's prioritization of governance values. Assuming that such an assessment was conceptually valid and had merit, this tool could reveal information about a person's level of intensity relative to each schematic lens and then how they prioritize those schematic lenses. This would reveal information regarding all aspects of each schematic lens, such as one's sense of affinity to different interest/positions, political philosophies, or values. Such information could reveal a person's true ideological leanings, their comparative governance preferences, and indicate what type of evaluative measures would be more impactful to their decision processes. It would reason that there would shortly thereafter be the development of research geared towards the identification of the factors that influence the formation of an individual's particular profile of prioritizations.

Such an assessment tool would presumably be constructed and presented in a style similar to how the Five Factor Model (McCrae & Costa b1997) of personality has typically be administered and used. This is to say that governance preferences may also have tendencies that

are persistent and stable over time, present themselves in a manner that creates different profiles for people, and predict how people will react in future scenarios. This type of assessment tool could also be expected to develop metrics for each schematic lens' evaluative focus, and this feature could be of particular usefulness. Not only could governance decisions apparently be measured by each schematic lens (e.g., the level of intentions versus outcomes that occurred, indicating effectiveness), but cross lens comparisons could be accomplished. This means that one could theoretically, for example, evaluate a certain governance decision's effectiveness "score" along its efficiency, ethical, or equity "score." This means a type of "apples to oranges" comparison of scores for governance evaluative domains could be attained. Having such information available to decision makers could drastically expand the scope of discussions and debates about which particular governance approach should be taken for scenarios where multiple options are available. With such information, not only could cross comparisons of schematic domains between governance choices be conducted, but different versions of composite or weighted scores could be developed.

Beyond the potential availability of a useful assessment tool, this research offers other possible benefits to researchers. Since the proposed framework is assumed to offer a more instrumental understanding of people's decision making processes, this research could open up a variety of prediction models for Public Policy and Administration researchers. Such models could answer questions like what governance approaches are believed to be best for specific communities, what path certain governments could be expected to take within different situations, how politicians could be expected to vote on certain issues, or how one set of events could affect future events. There would also be research opportunities for exploring the potential interactional and synergistic effects between different schematic or heuristic tendencies that

occur because of moderating factors. Still other research could explore various mediating factors that could help explain why certain ideological patterns exist.

Lastly, Public Policy and Administration researchers could potentially see benefits from allowing this new conceptualization of governance to reframe certain aspects of the field. For instance, the heuristic-based classifications of governance ideologies could offer new definitions for certain ideas or new understandings for how certain terminology should be used. Such terminological reframing could also potentially be useful for creating new forms of assessment regarding the analysis of policy trends or cycles. Finally, the reconceptualization of governance components presented in this research could suggest a potential paradigmatic restructuring of how public policy and public administration matters are approached in academic settings. For example, if the presented framework took hold, certain educational topics, coursework, or research could be structured around the four schematic lenses of governance. This would mean implementing deliberate attention to the impact of the dominant areas of inquiry associated with each schematic lens (economics, ethics, organizational theory, and legal studies).

The second category of discussion explores how these concepts can help the average person interact with governance more successfully. If the conclusions presented in this research are valid, then the newly acquired and more accurate conceptualizations of governance could affect what outcomes of government actions are sought and how outcomes of governance approaches are evaluated. Also, with the new understandings presented by this research, people may be more empowered to prevent the implementation of governance policies and practices with which they are uncomfortable through a greater ability to analyze the motives of any particular governance approach

The third category of discussion explores how these concepts can help public administrators understand and achieve various governance goals. This research may help public administrators connect certain values and preferences to the development of particular policy or government initiatives. With more tools and information available to them, public administrators could be able to achieve the various and otherwise esoteric types of targets that they are aiming for when trying to implement policies. This research may also help public administrators resolve conflicts between different factions of people by being able to frame preferences in a more advantageous way. This could allow them to more easily identify constructive resolutions to the disagreement at hand. Being able to more accurately identify interests and develop governance approaches that attend to those desires, public administrators could potentially achieve greater buy-in from the public for governance initiatives.

The fourth category of discussion regarding the theoretical implications and applications of the ideas presented in this research explores how these concepts can help bring about forms of governance that are a better perceived fit for those affected by a particular governance decision. Such better fits could help foster a potential sense of achieving both subjective and objective interpretations of “good governance.” The first way this could happen is by applying some aspect of the schematic structure of governance decisions to systems designed for identifying and selecting representatives. If, for instance, some type of governance system was able to ensure that a representative from each perspective of thought was represented, then there might be greater potential to develop governance approaches that are more balanced and ideologically inclusive.

There is, however, likely to be an aspect of real-life governance decision making that is more impactful on outcomes than the representativeness of perspectives. It is assumed here that

representativeness is actually a surrogate goal for another governance goal, that governance choices match the preferences of the people they are designed for. The ideas presented in this research might offer a new opportunity for trying to have that sense of “fit” occur. The proposed nonrational shared mental model of governance decision making may help decision makers better understand what types of governance actions should provide to them the highest potential level of perceived satisfaction for a certain “target audience” as a function of preference fit. Put simply, if one can tell what the preferences of a people are, then governance approaches can be selected that match those preferences. Presumably, knowledge of how to find such fits could be iteratively acquired by conducting case studies on the perceived success and satisfaction levels different approaches offered to various community preference profiles. Information gained from these efforts could then be compiled for public administrators into a type of best practices guide.

This dissertation will conclude by providing two applications of the model presented in this work. These application sections are included in this work because they provide potentially valuable dialogue about the potential impact of this research. The first application is an example of how such proposed governance-community fits described in this chapter could occur. It does this by proposing that the relative strength or weakness of the different schematic lenses a community exhibits in their preference expressions could indicate which form of public-private partnerships might deliver the highest sense of fit and satisfaction. The second application is a collection of four thought experiments related to this research’s main contributions. These experiments are meant to provide thought-provoking insights that could logically follow the recognition of the nonrational shared mental model for governance decision making provided by research. Together, these applications help explore the potential implications of how governance decisions are made and how a model of the process could lead to meaningful developments.

APPLICATION I

Applying the Model to the Selection of Public-Private Partnerships

As discussed, this section will show how the proposed nonrational shared mental model of governance decision making could be used to determine which public-private partnership arrangement might be most desirable by a particular community. This will be accomplished by first examining the different entities commonly present in public-private partnership governance dynamics. Then those components will be linked with the schematic frames and preferences with which they are most aligned. This association allows one to identify which public-private partnership features might be more or less preferred by different preference viewpoints. Then, if various hypothetical communities could be characterized by the level of intensity for each schematic lens of preference they express, the type of public-private arrangement that best fits each type of community could be determined. This example will culminate in the presentation of a matrix of options that could serve as a guide for selecting which style of governance would be the best choice.

It is also important to note that, out of the several different aspects of each schematic frame that could be used for the development of this matrix, it will be the political philosophies of each schematic lens that will be used. In comparison to interest/positions or core values, the political philosophies of each lens are considered the most helpful in communicating perspective differences. In this example, political philosophies will be used in a similar sense as they were previously used during the Chapter 4 example of the government ditch digging project. The forthcoming example starts by setting the stage with a brief overview of public-private partnerships and then explores the potential impact of using the political philosophies of each schematic lens to identify which form of privatization might best fit each preference

environment. As will be shown, the level of complexity that can occur for public-private partnerships arrangements is why it is good candidate for showing how the nonrational model presented in this work can be helpful in confronting an otherwise difficult domain of governance decision making.

The Structure of Privatization

The “public-private partnership (PPP) has become a defining characteristic of modern governance” (Greve & Hodge, 2011, p. 265). The PPP is a byproduct of the push for privatization in government. Privatization is a process that affects numerous spheres of people’s private lives and is relevant in one way or another to almost every aspect of governance. Although privatization is a concept that has been studied for several decades, it still possesses some rather unclear boundaries and concepts. Furthermore, it still seems to be a matter of trial and error when it comes to knowing what path one should take when approached with privatization options.

Here, an attempt will be made to help align people’s prevailing perspectives on governance and the privatization approach that is the most fitting for those views. Savas (1987) stated that privatization efforts were strategic approaches towards more productive and cost-effective governance, and the matrix presented here might help bring more strategy to these decision making processes. To achieve this, a prescriptive stance will be adopted, analogous to the approach taken by McNamara & Morris (2008). Here though, instead of using a two-axis analysis of competition and accountability, Kolderie’s (1986) dimensions of governmental provision and production will be used to orient privatization options.

What is privatization?

Because of the somewhat contextual nature of the term, there is no universally agreed upon definition of privatization, but all interpretations of it share similar features (Brudney, Fernandez, Ryu, & Wright, 2004). In America, the term often describes the “government’s contracting out of local public services to private providers” (Lopez-de-Silanes, Shleifer, & Vishny, 1997. P. 447). To Savas (1987, p. 3), it was the “act of reducing the role of government, or increasing the role of the private sector, in an activity or in the ownership of assets.” It involves seeking public goals through a greater presence of private markets and actors (Feigenbaum & Henig, 1994), with government acting in a supervisory role (Kettl, 1993). It can highlight cooperation and shared risk between public and private entities (Klijn, Edelnbos, Kort, & van Twist, 2008). Ultimately, it is the shifting away from a bureaucratic entity towards some other organizational option.

Given these broad definitions, it may come as no surprise that it can be difficult to tell what exactly privatization looks like when it occurs. There are “differing views as to what constitutes” a privatized relationship (Hughes, 2012), and privatization occurs in numerous forms (Savas, 1987). To many, a privatized relationship is merely a type of contracting relationship (Hughes, 2012), and, accordingly, survey research has shown that outsourcing is the most common form for state and local governments (Brudney, Fernandez, Ryu, & Wright, 2004). However, Brudney, Fernandez, Ryu, & Wright (2004) reviewed a number of sources and concluded that the act of privatization includes a variety of things such as the sale of state assets, grants and subsidies, contracting out, franchises, deregulation, private donations, service shedding, volunteerism, vouchers, self-service, and user fees. Skelcher (2005) stated that the PPP’s that develop from privatization include things such as the design of hybrid organizations,

co-production between governments and private agents, the contracting out of services, and business management of public utilities. Furthermore, Hodge, Greve, and Boardman (2010) grouped the partnerships that develop through privatization into five categories: institutional co-operation for joint production and risk sharing, long-term infrastructure contracts (LTICs), public policy networks, civil society and community development, and urban renewal and downtown economic development. As one can easily see, privatization is related to an extensive array of activities. Nevertheless, all forms of privatization can be analyzed as some shift of activity between “the public” and “the private.”

What though is the difference between the public and the private? Unfortunately, a clear distinction is “elusive” (Savas, 1987, p. 3). There is an “indistinct boundary between public and private interests” (Skelcher, 2005, p. 348), and there is so much blurring of the domains that a firm contrast would be little more than a somewhat arbitrary dichotomy (Moulton & Wise, 2010). Even the term “public” is often unclear, sometimes meaning to the common person some interchangeable mix of “government ownership, widespread ownership, or widespread access” (Savas, 1987, p. 4). Generally, public refers to something that is more government oriented in nature, and private refers to something that is more related to an individual person, business, or market.

The most meaningful understanding of public and private comes from Kolderie (1986). His distinction is important because it does not try to strictly differentiate between the two spheres but rather allows them to exist on a continuous spectrum. Additionally, what Kolderie does is create a more useful conceptualization by viewing the differences through the lens of actual governmental activities. He states that to properly understand any form of privatization and to distinguish between the public and private nature of something, one must first more

accurately grasp the two distinct activities that government does and analyze the publicness of a situation along each dimension: *provision* and *production*.

To Kolderie, provision is any activity similar to policy making, deciding, buying, requiring, franchising, financing, or subsidizing. Production is stated as being similar to operating, delivering, running, doing, selling, or administering. Together, these two categories of action look to cover the entire spectrum of governance-type activity, and these two sets of activities performed by government are each then allowed to exist along a spectrum of publicness (more private to more public).

These relationships, their meanings, and their corresponding examples are presented in Figure 10. As can be seen by the figure, the combination of the two concepts creates a two by two design of four types of privatization environments. The top left and bottom right quadrants represent mixed provision and production scenarios, while the top right and bottom left quadrants create, respectively, more public and more private situations. With these distinctions for privatized scenarios, what becomes clearer what is the meaning, manner, and interpretation of public or private circumstances.

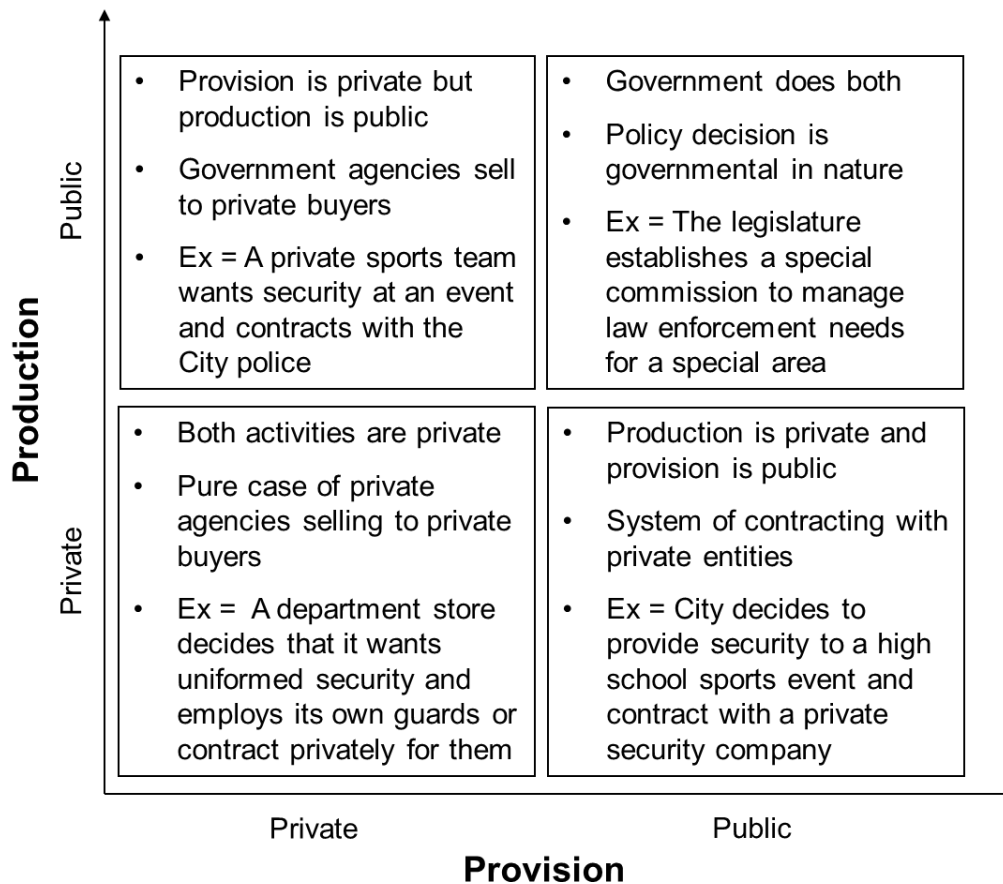


Figure 10. Kolderie's spectrum of provision & production, differentiated by publicness.

Why do people want privatization?

The consensus reason for engaging in activities like contracting is that they have the potential to save governments significant amounts of money and resources (Lopez-de-Silanes, Shleifer, & Vishny, 1997). This can often be achieved because privatization “takes advantage of the full array of ownership and operating relations to serve the public interest by satisfying people's wants and needs” (Savas, 1987, p. 4). Kettl (1993) states that the competition that comes with privatizing yields many positive, self-correcting tendencies for production levels, costs, and quality. Privatization also has the potential to fill citizen desires for greater choices for service decisions and delivery (Goldsmith & Eggers, 2004).

Because of these desirable qualities, privatization now occurs across a variety of domains, including health policy, environmental policy, and support services (Kettl, 1993). In truth, it is the flexibility and general “ambiguity” of the types of relationships that develop through privatization that creates its appeal and power (Greve & Hodge, 2011, p. 265). The ambiguity of its form allows for people with different motivations to come to the same conclusion – that some form of privatization away from a typical government system would be beneficial. Savas (1987) identified how these motivations coalesce into four categories of overarching forces. These pressures for privatization are labeled as *the pragmatic*, *the populist*, *the commercial*, and *the ideological*. They are described in detail below. Please note that the phrases and wording used in the below four pressure descriptions are composites taken directly from Savas’ work. These composites were used in place of quotes for the sake of brevity but similar wording used to retain exact meanings.

(1) *Pragmatic*. The pragmatic view is associated with better government. Its proponents believe in seeking out more cost-effective public service. They believe that increasing productivity is likely to be politically attractive and that privatization can be turned into an important tool for better public management as a key for creating a more cost-effective government.

(2) *Populist*. The populist view is associated with a better society. It believes that people should have more choices and focuses on the process of formulating common needs. Those with this view are in favor of local institutions that empower the people as opposed to big government or big, distant business deciding directly for them. It is the push for a better society while

simultaneously reinforcing a local sense of community that draws the populists to what the concepts of privatization have to offer.

(3) *Commercial*. The commercial view is associated with more business. Those that espouse this view believe that government spending should be directed towards private firms. It is believed that the private sector can do a better job than a direct government asset or state-owned enterprise of any nature. Government employees often perform routine commercial activities that are not unique to government yet often continue to operate without competition. It is thought that such governance environments create opportunities for mismanagement, underutilization of assets, and the breeding of slothful practices.

(4) *Ideological*. The ideological view is associated with simply having less government. Those with an ideological view believe that government is inherently too big, powerful, and intrusive. They believe that the free market is fundamentally more trustworthy than the government, which is rooted in political decision making and thus less economically maximized. Moreover, it is believed that the overriding presence of government in decisions that could be made privately threatens individual freedom and unnecessarily reduces personal autonomy.

Pressures as Philosophies

It is proposed here that these pressures are just the *manifestations of political philosophies*. Political philosophies are, at their heart, psychoanalytic drives (to help us survive or to prevent our destruction) applied as strategies for problem solving in the complex world of governance. According to the Encyclopedia Britannica, “The central problem of political

philosophy is how to deploy or limit public power so as to maintain the survival and enhance the quality of human life.” It also states that “Like all aspects of human experience, political philosophy is conditioned by the environment.” The environment here is one where people see privatization as a desirable tool for better governance and are seeking understanding on how to do it in a way in which they are most comfortable. To help guide them in this effort and sort through the decisions they face in these matters, it is assumed that people are likely to use their core political philosophy (or some combination of philosophies) as their guiding principle(s). Purposing how exactly people might do this and what it would look like in the real world is the rationale for this example. Here, the four philosophies associated with the nonrational model presented in this work are briefly discussed again and connected to various privatization pressures.

(1) *Statism*. Statism refers to a philosophy which views the state as being chiefly able and best suited to achieve acts of governance. If a decision maker is approaching a choice with the interest of the state in mind, supporting decisions that espouse the authority of the state are then very fitting. There is a belief that a vision of certain ends can be aptly achieved by using directed effort to harness the means of the state. The state can take in resources and produce wanted governance.

This view is related to the *pragmatic* pressure of better government. Statism supports the targeted and concentrated power of the government towards a goal. Taking this approach is likely to create a more cost-effective public service. This fits the pragmatic view of privatization as a means for increasing the productivity and efficiency of government.

(2) *Communitarianism*. Communitarianism refers to a philosophy which views the perceived needs of the community as paramount. A decision maker adopting a communitarian view is interested in the overarching effect of an act of governance on everyone as a whole and is chiefly concerned with the principled health of the society. A core goal is how to allow the greatest perspective and ethical stance on the aggregate human condition.

This view is related to the *populist* pressure of a better society. The needs of the community are believed to supersede the political desires of the government, the profit desires of the private sector, or the autonomy of the individual actor. The opportunity for a community to address its common needs and thus help create a better overall society is likely a shared perspective between the privatization populist and communitarianist.

(3) *Groupism*. Groupism is a philosophy that stems from the drive to affiliate with those that you can identify with and those that you are habituated to associate with. It is when the dominant perspective in a decision maker's mind is that of one's group affiliation. Individual identities become superseded by identities that differentiate one's segment of people from another segment. Groupism is a philosophy that occurs in all cultures. Groupism supports the affiliation of the citizenry to some group identity because it assumes governance is enhanced when decision-making, at some level, is limited to specific representatives. This perspective assumes that the competition and cooperation that can occur between qualified and selected representatives during decisions of governance can produce outcomes that are more effective than the abstract objectives of society as a whole, the potential mob rule of direct democracy, or the central planning of state-led initiatives.

This view is related to the *commercial* pressure of more business. The groupist view likely supports cooperative action through competition and the use of selected representatives. The commercial view supports privatized interests being competitively chosen as the agents responsible for fulfilling the community's need.

(4) *Liberalism*. Liberalism is a philosophy associated with rational self-interest. Rational self-interest does not necessarily refer here to some economic model of utility analysis for decision making, such as rational choice theory. In this context of a decision of governance, it is the perspective of what is a preferred decision if taking the standpoint of the individual, a rational egotism. Fundamentally, the most important concept to the rationale of the individual seeking to pursue their self-interest is the ability to actually make such a choice. This need for individual empowerment reinforces the role of liberty as a fundamental component of classical liberalism; everyone must have an equal opportunity to seek their goals or chance to achieve their desires.

This view is related to the *ideological* pressure of less government. Both perspectives likely believe that self-interested individuals are the one who know best how their resources should be spent or, at minimum, should have the right to live with the consequences of their own decisions. They are confident in this decision because of belief in the advantages of the market place and collective gain associated with the aggregate progress of individuals liberated from a centrally controlling government.

It is assumed that these relationships between privatization pressures and underlying philosophies exist and have an influence on the government's approach to privatization.

Furthermore, it is believed that these forces straightforwardly relate to the quadrants created by the Kolderie's work. It is presumed that the outcomes of these pressures result in the scenarios Kolderie predicted. The associations between these four privatization conditions and these forces is presented in Figure 11. Going clockwise and starting from the top left quadrant, a description of each situation is presented below.

(1) Private Provision & Public Production. This quadrant matches best with the *pragmatic/statist* view. This view believes in the use of focused government activity towards a more productive delivery of public services, but it also supports a more privatized style of approach towards the decision processes that go with those services. This would mean that although the government is influencing the operating or selling parts of an activity, it would be a private decision on how that is done or whether the good or service is paid for.

(2) Public Provision & Public Production. This quadrant matches best with the *populist/communitarianist* view. It is believed that the communitarianist view can very much be in support of bringing the perceived benefits of privatization to government. Furthermore, the communitarianist view is arguably the most "public" of the four political philosophies presented here. This doubly public quadrant receives a fundamental conceptual change here because of the desire to emphasize the potential influence of privatization.

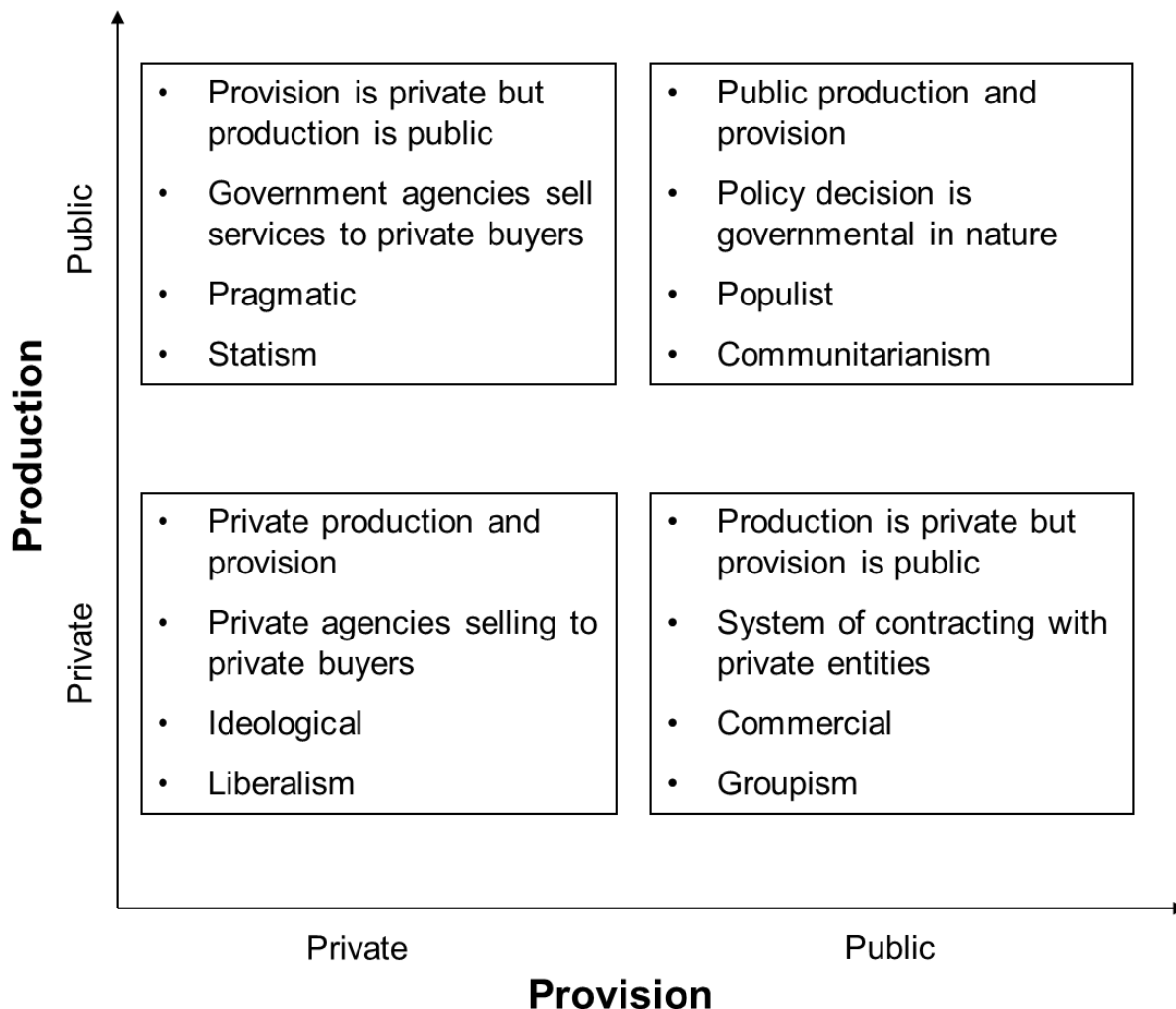


Figure 11. Placing the forces in favor of privatization on the Kolderie framework.

Kolderie viewed the quadrant of public provision and public production as an exclusive government scenario. However, the objective here is to propose what influence privatization might have on that particular scenario. The original framing of Kolderie's government activities matrix did not allow for a privatizing effect on this mix of government actions. However, it is believed that this can and does occur through the "softest" of privatization approaches, those where the transitions are the closest in form and function to the typical governmental mechanisms but require a slightly more localized element of private attention. This would fit the

communitarian concern for the greatest perspective and ethical stance on the aggregate human condition.

(3) Public Provision & Private Production. This quadrant matches best with the *commercial/groupist* view. This view promotes the belief that government spending should be directed towards the private sector in order to achieve better results. This would imply that although the government is deciding to buy something, it is the private entities that sell to the government and deliver to the public.

(4) Private Provision & Private Production. This quadrant matches best with the *ideological/liberalist* view. This view promotes limited government and maximized individual decision making. The liberalist view is the most “private” of the four political philosophies presented here and best fits a domain where both provision and production are privatized.

As has been shown, the pressures articulated by Savas and their associated philosophies merge well with the Kolderie framework. Although these links may be useful in and of themselves, the intention here is to connect these forces to real world privatization approaches. Doing so may offer a prescriptive solution for helping satisfy the particular mix of privatization pressures that a government faces. In order to achieve this, the entities that play a part in privatization processes, and their associations to these forces, must first be examined.

Elements of Privatization

There are a number of entities that engage in public-private partnerships. Here, the components of the privatization process are broken into two categories: the constants and the variables. The three constants are the entities that are believed to be present in all large governance situations. They are (A) the Public (population), (B) Government Officials, and (C) Government Departments, Bureaus, or Agencies. The four variables are the entities that are present only in certain circumstances. They are (1) State-Owned Entities, (2) Public Authorities of the Government, (3) Contractors, and (4) Private Companies.

The three constants are believed to always be present because the backdrop of large governance situations almost always includes the people who in some way chose a political body of government officials, the government officials that run the government through administrative bodies, and the administrative bodies that deliver government to the people. When any form of privatization occurs, the four variable entities enter in to this otherwise non-privatized equation. Private companies are independent businesses paid for by the public that select the company's goods or services. Government contractors are independent companies paid for by the government. There is a wide variety of types of government contractors, but here they are presented as the one type of entity because of their similar functional arrangements for the privatization process.

In general, state-owned enterprises (SOEs) are usually government-controlled businesses, and public authorities are usually legally and financially independent decision making bodies established by the government. Distinctions between SOEs and authorities are difficult for the average person understand because the two entities are similar, are generally obscured from typical life activities, and frequently occur in conjunction with one another. However, the two

serve different purposes, have distinct roles for satisfying privatization urges, and possess key differences related to the publicness of their provision.

Public authorities are legislatively created governing entities over some particular area. They are initially formed for both political reasons as well as to have their administrative nature be independent from typical bureaucratic structures. Usually, a board of directors heads a commission that focuses on the administration of a particular function or service for society. The authority is usually independent from the rest of government in terms of finances and controls, and it is able to engage in contracts with private entities as it sees fit. They may be created to run some protected service, such as utilities, or they may be created as a decision-making compromise between two or more government entities. In a sense, they can act as outsourced governance. Public authorities essentially take on a privatized business structure while administering a function or service that would otherwise be left to a disconnected government body. These attributes make authorities desirable substitutions for politicized initiatives, government enterprises, or profit-motivated private ventures. (Gerwig, 1961, Leavitt & Morris, 2004, & Shestack, 1957).

SOEs are public enterprises and government-owned corporations that are partly or completely owned by the state and compete directly with private companies operating in the same market. Governments may not have direct control of daily operations, but they maintain control of overall SOE operations through ownership influences. SOEs are dynamic because they can be controlled directly through state ownership or through a public authority. This means that SOEs can handle the business transactions and sell goods or services to the public in the same manner that a public authority would determine to be best for the people of an area. Governments may choose to create SOEs because of their increased productivity compared to

bureaucratic operations, to deal with market failures, to control a monopoly, to engage in economic planning, or protect a business sector that faces competition. In addition to utilities, companies focused on oil, motor vehicles, tobacco, and alcohol have all been created through SOE initiatives. SOEs are typically used as mechanisms for achieving state capacity, and, although somewhat universal, they occur frequently in communist and less-developed countries (Hughes, 2012, & Rees, 1984, Vernon, 1984, & Zengxian, 1997).

The goal for presenting the previous elements of privatization was to establish environments based on these elements. Figure 12, shown below, summarizes those components and indicates how they will be presented in future depictions. The next objective in this example is to link these elements to the pressures of privatization in order to show how they might relate to privatization preferences and the subsequent policy decisions and administrative processes that come from those choices.



Figure 12. Entities in the privatization process.

Relating Privatization Forces to Entities

It is proposed here that each of the four variable entities in the privatization process align with the views of one of the four privatization forces. These associations help anchor each privatization belief set to a real world embodiment of their preferences. Figure 13, shown below, depicts how each variable privatization entity interconnects with the other proposed elements of the Kolderie framework. The following is an explanation of each association:

(1) State-Owned Enterprises = Pragmatic Pressures/Statism. SEOs are business organizations created by and directed through government to swiftly direct certain resources or efforts towards some particular objective. This wielding of state power aligns with the pragmatic views of a more productive and cost-effective approach of a more privatized operation than a bureaucratic agency. They offer the government high control over a strategic market-participating entity. A statist approach is affiliated with pragmatic pressures and government corporations/state owned entities.

(2) Public Authorities = Populist Pressures/Communitarianism. Public authorities are community organizations designed to best serve the general welfare of society through navigating, assigning, and describing responsibility and obligations in a manner that addresses the needs of all parties involved. This orientation is aligned with the populist approach of more localized decision making. A communitarianist approach is affiliated with populist pressures and aligns with organizational decision making processes similar to those found in public authorities.

(3) Government Contractors = Commercial Pressures/Groupism. Government contractors are organizations that form from some subset group of those with particular capabilities, skills, and abilities and for some purpose in response to some real or perceived need of governance to effectively achieve some objective. Their presence aligns with the commercial interests that pre public dollars to be redirected from public employees and to private specialists. A groupist approach is affiliated with commercial pressures and the use of contractors.

(4) Private Companies = Ideological Pressures/ Liberalism. Private companies are organizations of individual actors that independently, competitively, and somewhat fairly engage other private actors in an exchange of utility through goods and services. This independent nature aligns with the ideological approach towards a maximized privatization scheme. A libertarian approach is affiliated with principles of ideological pressures and extensive use of the private sector.

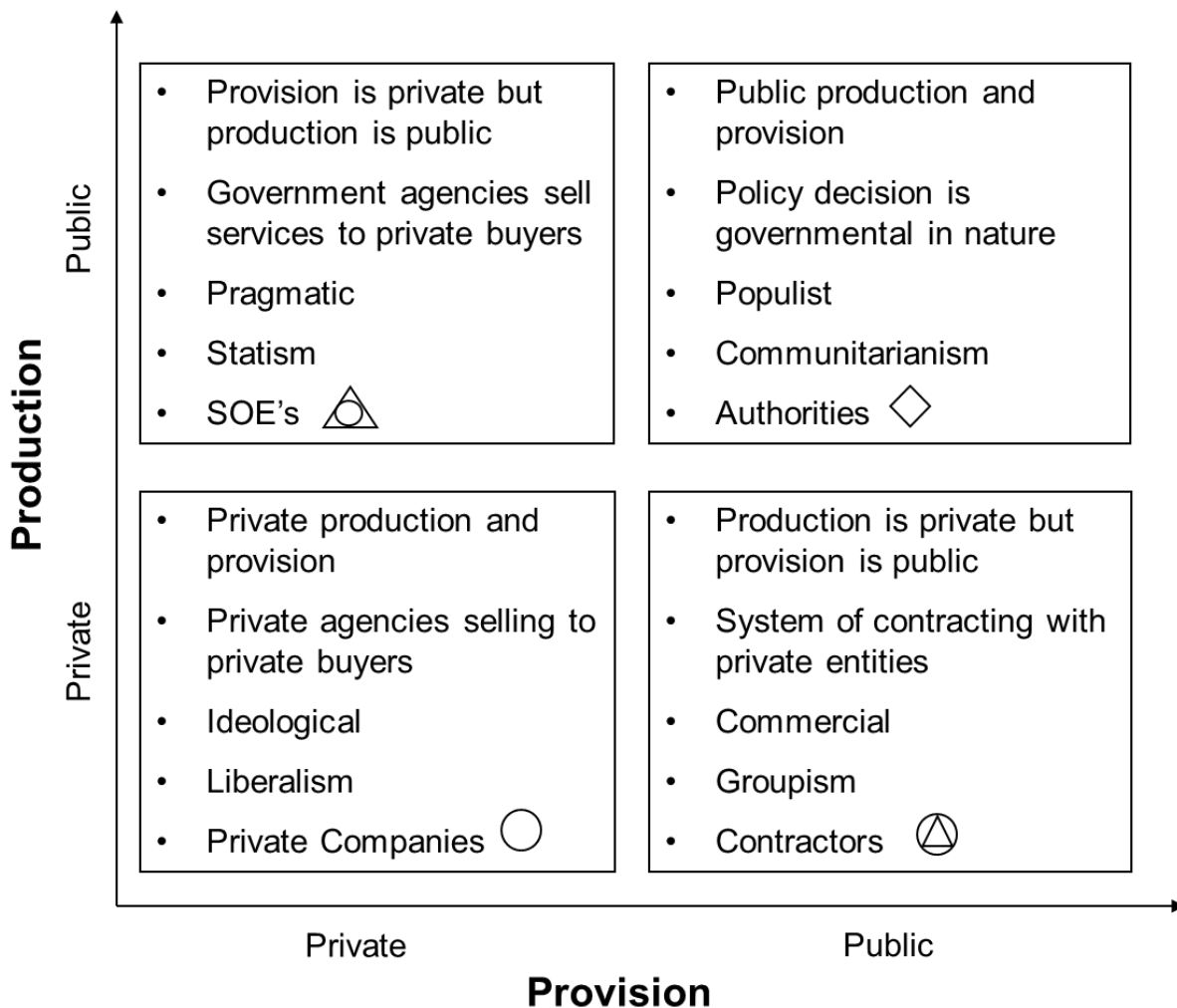


Figure 13. Privatization entities in the Kolderie framework.

Privatization Structures

The previously discussed associations are valuable because they can be used to structure idealized privatization scenarios. These proposed structures are believed to be close to the likely preferred arrangement for each scenario, given the available privatization elements. Each element is linked to one another by lines representing the flow of information, a controlling

relationship, and/or a transfer of functions or services. Figure 14, shown below, depicts these likely preferred privatization structures and relationships.

At each corner of this diagram, the four privatization forces create a structure that is primarily focused on that direct influence. Between each of these “pure” examples is a blended option that combines the influences of the two closest privatization forces. Finally, in the center, is a structuring option that is believed to take a balanced approach across all four privatization forces. Below this nine-block matrix of options, each option is briefly described individually.

If valid, this matrix fills the void in the research of describing how the pressures of privatization lead to preferred provision and production combinations of functions and services. For instance, if a particular community was assessed for its most prevailing privatization pressures, the resulting data could be used to create a privatization structure that the people are most likely to be satisfied with. In another scenario, if a community believes that a particular view is underrepresented, and it seeks to rectify that short coming, this framework could offer a prescriptive solution for helping those people achieve their goal. In a governmental setting, this framework may help decision makers by giving them the information to develop and promote better fitting privatization structures.

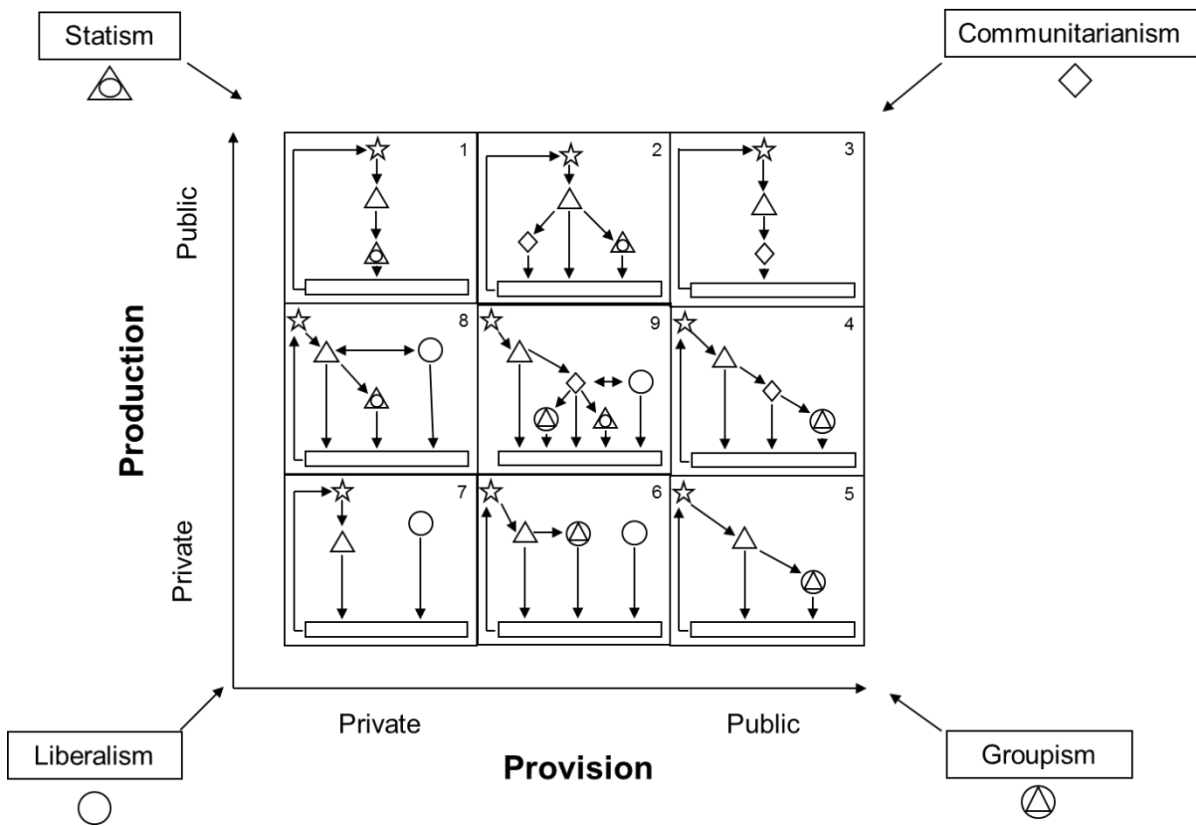
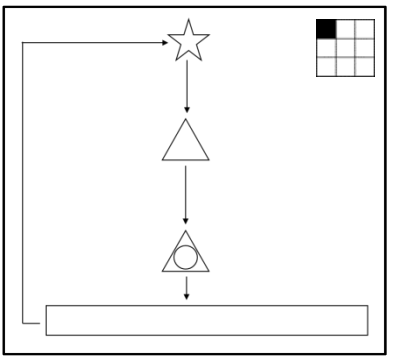


Figure 14. Proposed idealized privatization structures for each condition.

Legend:



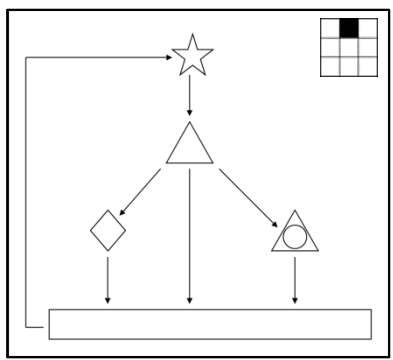
1 *Primarily Statist*: This scenario represents a structure that would be ideal for those advocating



statist views. It features private provision with public production. Where possible, government actions would occur through the SOEs in order to most effectively direct state abilities.

- ★ Public Officials
- △ Govt Agency
- △ Govt Enterprise/SOE
- The Public

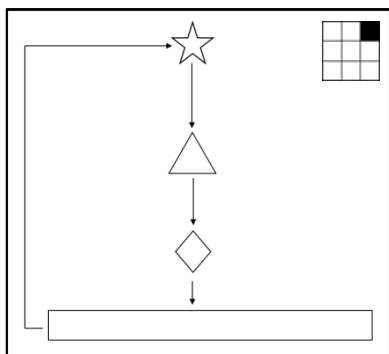
2 *Communitarianist & Statist*: This structure represents the blending of the statist and



communitarianist views. It has a balanced approach to provision but a public-leaning approach to production. Both public authorities and SOEs are used to bring functions and services to people. Where a localized approach is preferred, the authority steps in. Where more effective government is desired, the SOEs are used.

- ★ Public Officials
- ◇ Public Authority
- The Public
- △ Govt Agency
- △ Govt Enterprise/SOE

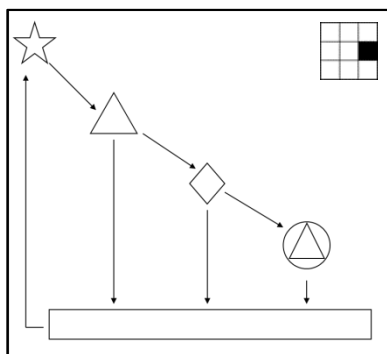
3 *Primarily Communitarianist*: This structure represents a dominant populist approach. Where



possible, it filters all government activity through public authorities. Here, both provision and production are addressed publicly.



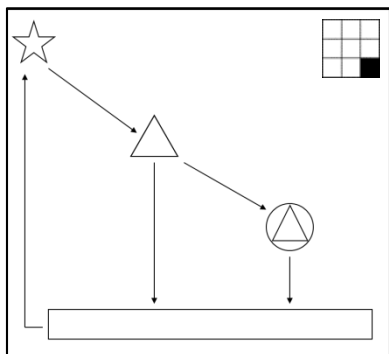
4 *Groupist & Communitarianist*: This structure represents the blending of the populist and



commercial views. Provision elements are addressed publicly, but production is mixed. Government agencies can serve the public directly or work through public authorities. Similarly, public authorities can work for the public or operate through contractors.



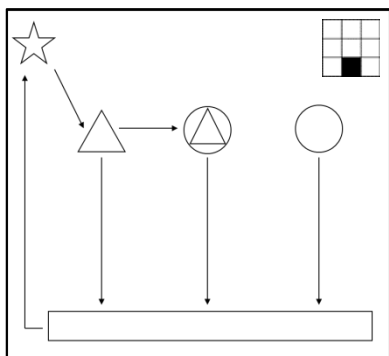
5 *Primarily Groupist*: This structure is fundamentally aligned with commercial privatization



pressures. By using contractors wherever possible, this privatization design uses public provision and private production. If a government service cannot be handled “in house,” the government will contract with a private company to complete that goal.



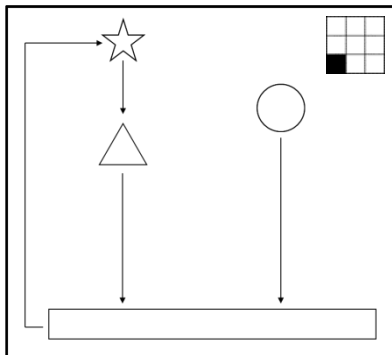
6 *Groupist & Libertarian*: This structure is a blending of the ideological and commercial



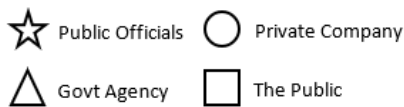
preferences. Similar to scenario #5, the government can operate through contractors where necessary or preferred. However, in this situation the public would also have the ability to seek out other actors in the free market for goods or services if so desired. This would be private production with a mixed environment for provision.



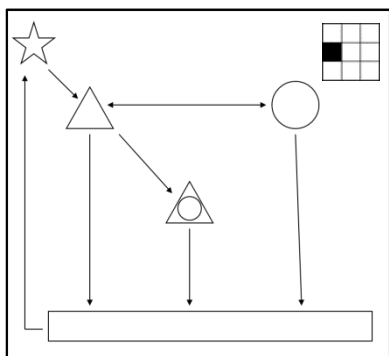
7 *Primarily Libertarian*: This structure supports a purely ideological view. Here, if a government



agency does not or will not provide a good or service, the public seeks out what they need from the free market. They may also, simply, use the market alternatives if they offer more utility than the governmental options. This is a wholly private situation for provision and production.



8 *Libertarian & Statist*: This structure represents the blending of the statist and ideological

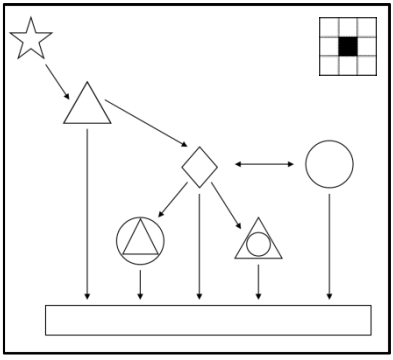


perspectives. Private provision is combined with a mixed approach to production. Government agencies can improve their productivity by utilizing SOEs, but the public can also use the free market to obtain what they desire. In this type of relationship, given the presence of SOEs in the market, some form of communication between the government and private sector is likely.



9 *Balanced*: This structure represents the blending of all views. It is believed to be the most

palatable option for a public as all options are available to them. Although this structure likely exists today in many places, the real question is if it exists across all goods and services.



- ☆ Public Officials ◇ Public Authority ○ Private Company □ The Public
- △ Govt Agency ⊕ Govt Enterprise/SOE ⊖ Govt Contractor

APPLICATION II

Thought Experiments

The previous appendix explored in detail how the nonrational shared mental model developed in this research could be used to guide the selection of a governance choice, even within the otherwise complex governance decision making environments such as those that can occur with questions of privatization. The remaining sections of this research's discussion will take a different tack. The discussion will move away from the potential applications of the developed model and instead focus on a few previously unmentioned theoretical implications.

The following information focuses on more abstract theoretical implications that were covered in this dissertation's discussion section. In order to address the particular nature of these potential implications, they will be examined as thought experiments. These mini thought experiments will essentially ask conceptual questions and then attempt to answer them. Four of these thought experiments will be presented.

The first thought experiment will ask if the ideological identities of the heuristics presented reveal a progression of power for the dominance of each schematic lens. The second thought experiment will ask what happens for combinations of three or four schematic lenses instead of just the two at a time addressed with heuristics. The third thought experiment will ask what it would look like to balance the influence of each schematic lens for developing governance approaches. The fourth and final thought experiment will ask what a governance environment might be like if the influence of one schematic lens, for some reason, was just entirely absent.

Thought Experiment #1

The first thought experiment presented here explores if the ideological identities of the heuristics presented reveal a progression of power for the dominance of each schematic lens. The origin of this thought experiment revolves around a curiosity about how much influence a particular schematic lens can have within a particular realm of governance, such as a nation-state. This is to wonder if the different types of governance environments that could exist are indicative of the pervasiveness of a single family of heuristic approaches.

It is assumed in this work that most large governance environments include a mixture of preferences favored by different decision makers. It would be plausible to think that every type of schematic lens would be given primacy, or every type of heuristic would be expressed, by at least one person in the population. The presence of a mixture of individual schematic or heuristic perspectives is, however, expected to have far less influence on a governance environment than the presence of a perspective that is particularly common or pervasive. If this pervasive perspective was a schema, it could mean that, for some reason, one schematic lens is given primacy by the vast majority of people. For example, the decision makers in one environment are predominantly concerned with a statist perspective and always defer to ideological perspectives that favor the state's interest/position.

A pervasive perspective in such an environment could also come in the form of a particular heuristic. This would mean that there was a pervasive ideology that was common for that realm of governance. It could be so common that it is functionally representative of the governance environment. Furthermore, there could be one overwhelmingly common heuristic expressed while comparisons between the other two interest/positions are generally considered nonissues and left generally unattended to. For example, a governance environment could exist

where the overwhelming majority of governance decision makers adhere to a tribalistic ideology but simply do not meaningfully address or have clear preferences for matters associated with societal or state schematic standpoints. This would mean that there would be a strong sense of groupism and a relevant but suppressed sense of individualism, but decision makers would lack firm convictions for matters involving communitarianism or statism.

The previous two pervasiveness scenarios reveal that there could be an ideology that best characterizes a certain realm of governance, and there could be varying levels to which a particular schematic viewpoint is dominant within that realm of governance. Though the level and type of pervasiveness may vary, both situations would be anchored by a schematic lens since heuristic derived ideologies depend on schematic comparisons. The extent to which there could be a pervasive perspective within some governance environment may be a function of the degree of influence that a particular schematic lens exerts. The more influence a perspective exerts, the more dominance it has over other perspectives.

The different perspectives presented by the nonrational model proposed in this work are all considered inherently equivalent to one another as a matter of principle. Though that might be a valid stance to take at the conceptual level, it may also be meaningful to suggest that there are significant differences in these perspectives in terms of the real-life entities associated with each perspective. The interest/positions of each perspective indicate that these real-life entities could be an individual, a group, society as a whole, or a government. Though the decision making process can allow a person to adopt the perspective of any of these interest/positions, the actual manifestations of these perspectives as different entities involved in the governance process are far more concrete and far less equivalent. This is to say there are substantial real-life differences between an individual, a group, society as a whole, or the government. The most consequential

difference between each of these entities is presumably the drastic differences in power that each can yield. Though there may be exceptions, there are likely few situations where a government is not more powerful than an individual. In a similar sense, an individual is usually less powerful than a group, a group is usually less powerful than society, and society as a whole is probably less powerful than a government. Though a whole society may be close in power to a government or even exceed it in some cases, for the sake of this thought experiment, it is assumed here that factors such as military strength can keep the typical government as being more powerful than society as a whole. In the end, it is likely safe to assume that the power gradient goes from the individual, to the group, to the society, to the government.

Up to this point, the logic presented in this thought experiment creates an important distinction. This distinction is that there is a difference between a perspective and an entity that is typically affiliated with that perspective. Though somewhat obvious, this distinction has not yet been acknowledged. This distinction implies that, for instance, though an individual might approach governance situations by expressing a preference for the views of the state, that person is not the same entity as the state itself. Likewise, a particular group may advocate for some ethical perspective that is meant to speak for society as a whole, but that group is not representative of society nor as powerful as it. Also, a society may support the perspective of a king (a representative of a state entity), but that does not make the people of a realm on par with the power of the king.

This separation of perspective and power then implies that a fascinating relationship could exist between the pervasiveness of any particular perspective and the ideological system that dominates a governance environment. If it is true that ideologies are the expression of preference between different perspectives, and if it is true that real-life entities associated with

the interest/positions of each perspective exist along a spectrum of power, then the pervasiveness of any particular schematic lens' perspective determines the ideological structure of a realm of governance. This means that if a realm of governance has an ideology that is dominant to the point of being representative, the type of ideology that is present is a statement about the pervasiveness and strength of a schematic lens.

If this relationship is true, this could imply that certain ideologies exist as “families” of thought through their dominant schematic lens, and the level of influence of that schematic lens determines the ideological environment for a realm of governance. The more pervasive a particular perspective becomes, the greater the power structures it affects. This means that, as influence increases, dominance is expressed over ascending levels of powerful entities. A weak level of influence only affects individuals, and the most dominant level of influence affects the state. Each perspective has the opportunity to progress through the process of dominating the other three perspectives that represent positions it does not occupy. This conclusion implies that low, medium, and high levels of influence for each schematic lens develop. Since each of these levels of influence would be the expression of preference, a progression through each stage would signify the development of a new ideology. Put differently, as a schematic lens increases in influence, the representative ideology for some realm of governance is transformed.

For example, as the schematic perspective of the individual gains influence it progresses up the power scale. First the individual perspective dominates the group perspective, next it dominates the societal perspective, and then it finally dominates the state perspective. What is good for the individual also becomes good for the group, then good for society, and then good for the government. At each level of influence, the ideology that corresponds to that schematic dominance dynamic becomes representative of the environment.

This pattern of progressive influence creates four families of ideologies, each connected to a driving schematic frame and ranked by low, medium, and high levels of schematic pervasiveness. This implies that here would be three ideologies in each of these four groups, ordered by schematic influence. The pervasiveness of the schematic lens of the state causes a progression from fascism to feudalism to totalitarianism. The pervasiveness of the schematic lens of society causes a progression from collectivism to socialism to communism. The pervasiveness of the schematic lens of the group causes a progression from tribalism to federalism to republicanism. The pervasiveness of the schematic lens of the individual causes a progression from capitalism to legal anarchy to full democracy. These progressions are presented in the Figure 15 below.

<i>Perspective</i>	<i>Transitions Occurring Through Greater Pervasiveness</i>					
State	➡	Fascism	➡	Feudalism	➡	Totalitarianism
Society	➡	Collectivism	➡	Socialism	➡	Communism
Group	➡	Tribalism	➡	Federalism	➡	Republicanism
Individual	➡	Capitalism	➡	Legalized Anarchy	➡	Full Democracy

Figure 15. Ideological transitions related to perspective pervasiveness.

These relationships indicate that as the perspective of each schematic lens takes hold through ever greater levels of power, the resulting governance environments are fundamentally

transformed. These relationships also indicate that there are inherent similarities between these sets of ideologies. As perspectives get what could be described as “more of what they want,” the governance environments are changed into climates ever more biased towards the desires of that schematic lens. Conversely, the progression of power of each lens would also appear to indicate that the influences of the other perspectives become ever less impactful.

The transitions presented could have some interesting characterizations. The schematic lens of the state appears to transition from a social influence, to a structural influence, to a complete take over. The progression of the societal influence transitions from a cultural prioritization for society’s well-being, to a formal control of important sources of advantage, to a weakened state commune. The schematic lens of the group moves the governance environment from a stable, homogeneous body of people to having power shared through some type of federation or confederation to a type of empire being established. The schematic lens of the individual appears to transition a governance environment from focusing on individual motives, to being like the American “wild west,” a land controlled by mob rule. This individualistic lens could also be characterized as the progression of regulated individualism turning into an environment of anarcho-capitalism (with an unregulated and voluntary society based on personal discretion) and then turning into what would essentially be a compulsory and coercive version of individualism.

Thought Experiment #2

The second thought experiment explores what happens when there are combinations of three or four schematic lenses. Heuristics address what happens when any two schematic lenses compete for dominance, but this research did not address how conflicts among more than two

schematic lenses are expected to be resolved. This inquiry likely requires a far more complicated and nuanced answer than what the core nonrational shared mental model presented in this work can provide. Given this challenge, the specific explanations and descriptions needed to fully address this inquiry are outside the scope of this research. Instead, what will be discussed here is a preview of how complicated that inquiry is expected to be. This thought experiment will investigate the possible myriad of discrete governance structures that could be derived from the components of the nonrational model presented in this research.

To preface this preview, it is assumed in this work that real-life governance environments necessarily include the constant competition of all four schematic lenses. This does not mean to imply that there is no place for the ideologies identified in the previous chapter. The twelve ideologies presented by this research's nonrational model are believed to be necessary and instrumental for understanding different governance priorities. The twelve ideologies may even be able to stand alone as sufficient explanations of how certain governance environments operate for situations where the two unaddressed schematic lenses are insignificant contributors to the governance environment.

Despite the potential usefulness of those ideologies, it is assumed here that the majority of governance environments operate through some sort of prioritization structure that accounts, in some way, for all four perspectives. This is to say that the identity that best describes most real-world governance environments (the pervasive structuring of views that can be representative of that realm of governance) is likely to be more complex on some level than what can be described by the presented twelve ideologies. In truth, some percentage of real governance environments would likely be best characterized as some particular mixture of ideologies. If true, this means that the proper identification of certain dynamic governance

environments would require that one first exhaustively identify every possible combination of preferences between schematic lenses that could occur when all lenses are accounted for simultaneously. This thought experiment will not attempt to do that, but it will attempt to suggest how many possible combinations this would be. Future research may then benefit from knowing the potential range of preference combinations and then, with that knowledge, work to fully articulate how each combination operates. From there, researchers could then use those developed descriptions to properly classify cases of real-world governance environments that possess internal dynamics too nuanced to summarize with standard core ideologies.

To identify the possible number of preference combinations, one must first identify how those preferences are arranged. If, for instance, there is a sequential comparison between schematic pairs, then this creates straight-line schematic lens relationship structures. This would mean that the first schematic lens is considered the most dominant, and it is dominant over the second most dominant lens. Then the second most dominant lens is then dominant over the third most dominant lens. Finally, the third most dominant lens is dominant over the fourth and least dominant lens. These relationships are presented in the Figure 16 below.

$$\begin{array}{|c|c|c|c|} \hline 1 & 2 & 3 & 4 \\ \hline \end{array} = 24$$

Figure 16. Straight line combinations.

A sequential set of comparisons like this would imply that, regardless of the dominance positions of each schematic lens, governance environments of this nature would have the same

general form for identifying them. In order of preference dominance, each one of these combinations could be identified as schematic lens #1 over #2 over #3 over #4. This would be the only structural option where there are heuristic comparisons all the way through the dominance structure. This means that schematic lens #1 is more influential on decision making than #'s 2, 3, or 4, that #2 is more influential than #'s 3 and 4, and that #3 is only more influential than #4.

This structure would yield 24 possible combinations for the four lenses. These would be 24 possible classifications for governance environments where a more nuanced and complete description of schematic lens interaction were needed for proper identification. This work assumes that this set of 24 would be sufficient for identifying combinations of both three and four schematic lenses. The reason that this set could address combinations for both is because it is assumed that there is a negligible difference in stating that a particular schematic lens is ranked fourth in a dominance struggle among four options or if that lens is essentially not present in the ranking structure altogether. If, for example, in some governance environment the schematic lens associated with groupism has no ability to influence decisions over other schematic lenses, there may be no meaningful difference between that situation and another governance environment where groupism is not even considered.

The structure of those 24 possible combinations all carry with them the implicit assumption that schematic lenses must be unequal and a preference between schematic lenses must be expressed. For that type of schematic structuring, there can be no sense of equivalency between lenses. There may however be other types of combinations where the schematic structuring includes the ability for two or more schematic lenses to have a sense of equivalency. This means that, within the overall decision making structure, some schematic lenses would have

a heuristic that establishes a prioritization dynamic, while other schematic lenses would lack any type of prioritizing heuristic between them.

Such structures would still be nonrational in nature, but they would have a “blind spot” in each area where a heuristic was not present to reconcile schematic lens conflict. For the schematic dominance conflicts lacking a heuristic to resolve the matter in a fast and frugal manner, those conflicts might be avoided, overlooked, resolved haphazardly, influenced by other factors, modified, blended, addressed in a quasi-rational manner, or resolved through some yet unknown means. Though it might be unspecified how equivalent and potentially competing schematic lenses existing together within a nonrational decision making framework have their conflict resolved, this thought experiment only aims to explore how such relationships would be structured and not how they would function. One type of design representing how these relationships could be structured would be that, after some dominant schematic lens leads the way for governance decision making, there is a sense of ambivalence regarding the prioritization of the other lenses. This could occur in two ways.

The first way this could occur is by one schematic lens being dominant over a second and the second lens being equally dominant over two equivalent lenses. This would mean that #1 is more influential than #2, #2 is more influential than either #3 or #4, but there is no relationship or comparison of preference between the third and fourth lenses. This type of structuring creates the potential for an additional 12 combinations of schematic lenses (governance style classifications) to occur. The structure of this type of relationship is presented in Figure 17 below. In that diagram, like with the previous structural diagram, the number written inside each box represents the overall rank of each lens. This labeling by tier or rank will also be used in each forthcoming figure.

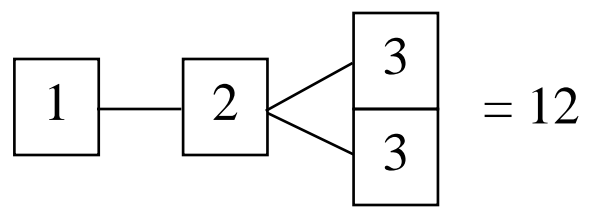


Figure 17. End frame equivalency combinations.

The second way this could occur is for one schematic lens to be dominant over two equivalent lenses, but one of those two second tier lenses is dominant over the remaining third tier/fourth lens while no relationship existed between the other second tier lens and the remaining third tier/fourth lens. This would mean that #1 is more influential than #2a and #2b, but #2a (and only #2a) is dominant over lens #4. There is no relationship or comparison of preference that occurs between schematic lens #2a and #4. This type of structuring creates the potential for an additional 24 combinations of schematic lenses (governance style classifications) to occur. The structure of this type of relationship is presented in Figure 18 below.

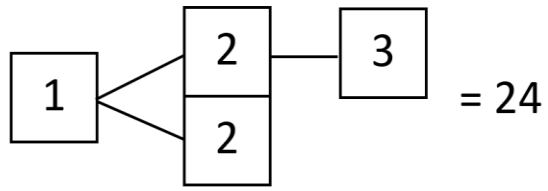


Figure 18. Third tier offshoot combinations.

The previous two diagrams show how 36 additional combinations could occur if, after a primary schematic lens is in place, two of the remaining three lenses are considered equivalent in some way. This type of equivalency could only occur between two lenses and not three. Put differently, when there is a primarily dominant schematic lens, two stages of prioritization must occur for meaningful new combinations to be identified. What cannot occur is that there is a primary lens of preference dominance and then three subsequent schematic lenses that are all considered to be on equal footing or have no comparative relationship between each other. The reason why these types of structural combinations are irrelevant is because they functionally represent “pure” schematic views. If lens #1 is dominant over lenses #2, 3, and 4, and there is no expressed preference between lenses #2, 3, and 4, then the only relevant piece of information this structure offers is to say that schematic lens #1 is the only significant motivation exhibited within governance decisions. It is assumed here that there no additional information is gained and no benefit for classification efforts derived from considering this structural combination form. Governance environments that could be best represented by this structure could simply be accounted for as “pure” schematic views. The structure of this type of relationship is presented in Figure 19 below.

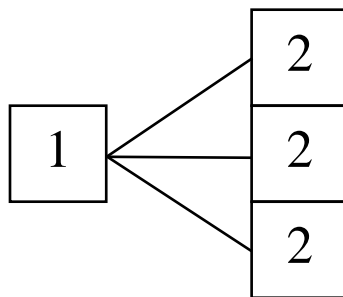


Figure 19. Three second tier frames.

So far in this thought experiment, 60 potential new governance environment classifications were identified. All of those 60, however, shared the implicit construction assumption that there was a primary dominant lens, a single #1. It is logical to presume, if it is possible for different schematic lenses to be equivalent in some way, that there could exist governance environments that function with more than one primary schematic lens. This potential means that future research attempting to capture the nuances of real governance environments may need to account for these types of classifications as well.

The first way this type of structure could occur is for two primary lenses to exist on the same first tier, then both of those lenses could have dominance over a second tier/third lens, and that second tier/third lens be dominant over a third tier/fourth lens. This means that there is no relationship or preference expression between lenses #1a and #1b, but #1a and #1b are dominant over #3, and #3 is dominant over #4. This type of structuring creates the potential for an additional 12 combinations of schematic lenses (governance style classifications) to occur. The structure of this type of relationship is presented in Figure 20 below.

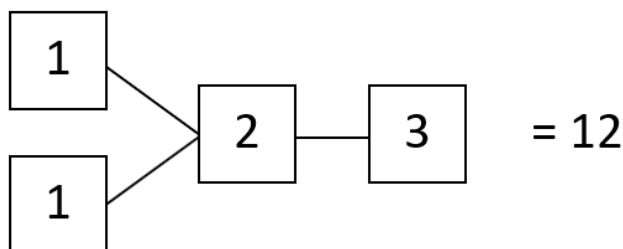


Figure 20. Equivalent first tier frame combinations.

The second way this type of structure could occur is for two primary lenses to exist on the same first tier, and both of those lenses have dominance over both remaining lenses, but those remaining lenses are also on equal footing. In this structure there would be no relationship or preference expression between lenses #1a and #1b, but there would also be relationship or preference expression between lenses #2a and #2b. This type of structuring creates the potential for an additional 6 combinations of schematic lenses (governance style classifications) to occur. The structure of this type of relationship is presented in Figure 21 below.

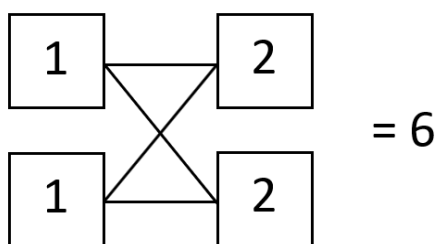


Figure 21. Equivalent first and second tier frame combinations.

The third way this type of structure could occur is for there to actually be three primary lenses that all exist separately yet equivalently on the first tier of preference, and all of those primary lenses exert dominance over the remaining fourth lens. This would mean there would be no relationship or preference expression between lenses #1a, #1b, and #1c, but each of them would be dominant over schematic lens #4. These forms of governance would struggle to make choices for governance decisions that put into conflict any of the views held by lenses #1a, #1b, or #1c, but, at minimum, this type of governance environment could make decisions that express preference against whatever schematic lens occupies the position of #4. This type of structuring

creates the potential for an additional 4 combinations of schematic lenses (governance style classifications) to occur. The structure of this type of relationship is presented in Figure 22 below.

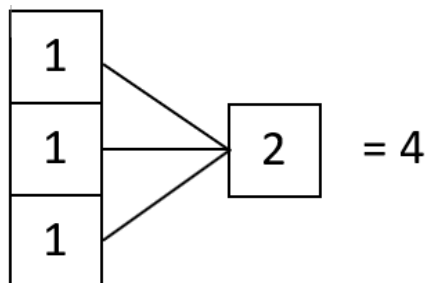


Figure 22. Combinations with three equivalent first tier frames.

Tallying up all of the possible combinations of governance preference structures presented in this thought experiment reveals that there are an additional 82 possible governance style classifications for researchers to consider. All possible real-world governance environments are assumed to be able to be identified through either the pure schematic views, the core heuristic-derived ideologies, or any these 82 more nuanced and comprehensive combinations. This assumption also implies that the proper classification of a governance environment should be through an assessment of how the four proposed schematic lenses relate to one another for governance decision making. However, if future research reveals that there is merit to including some type of moderating variable(s) in any such governance environment classification system, then the range of potential “proper” identities could increase substantially.

Thought Experiment #3

The third thought experiment explores what it would look like to balance the influence of each schematic lens for developing governance approaches. Given the discussion in thought experiment #1, it is logical to say that there might be merit in trying to temper the influence that any one schematic lens has on governance decisions and instead search for a more balanced approach. A balanced approach would imply trying to avoid expressing preference among schematic lenses and deliberately developing governance approaches that attempt to incorporate each of the four perspectives equally.

The underlying assumption for such efforts would be that there could be both a principally-based reason for pursuing such an approach as well as the potential to achieve that which could be universally thought of as “good governance.” It is unknown here if the “good governance” that a deliberately balanced governance approach could claim to achieve could also be objectively labeled as the “best governance.” Such a question would require more information and is outside the scope of this thought experiment. This thought experiment is limited to exploring what this type of schematic approach would look like and what effect it might have on governance decisions. This approach, a method where each schematic lens is intentionally given an equal ability to influence a governance decision, is identified here as “holistic governance.”

It might be more helpful to envision how to achieve holistic governance not by thinking about the constant reweighting of some four-part scale but by governance decision makers actively seeking out how to maximize the potential positive influences that could come from using each schematic lens. It is assumed here that each schematic lens inherently offers something useful for identifying a more desired governance decision outcome, and it is also assumed here that the shortcoming of every schematic lens is simply that each lens lacks what

the other lenses offer. In order to cover the weaknesses of each lens and maximize the benefits of all schematic lenses simultaneously, decision makers would want to try to enhance the presence of the core governance values associated with each schematic lens.

This is a relatively straightforward concept, but it attempts to “break” the rules established with the use of a nonrational framework. As has been discussed, nonrational processes seek to avoid cognitive gridlock and reach a decision by not expending significant resources seeking an optimization strategy between two competing schematically derived perspectives. If trying to achieve a Pareto optimality for a governance matter that had to address two variables was already difficult enough for decision makers, then trying to achieve such an optimization with four variables could be particularly more difficult. A large part of that potential difficulty is linked to the perceived computational problems that currently exist because of a lack of metrics for evaluating core governance values and due to the inability to compare metrics on a common scale. Though it is true that the nonrational model proposed by this work suggests ways to potentially resolve both of those issues, even if such advances were achieved, they may not be helpful enough to be used for predictive purposes.

For example, even if there were metrics for each of the core values and all four metrics could be scaled in a similar way so as to transform a discussion that would otherwise be “apples to oranges” into one that discusses “apples to apples,” those metrics might only be able to assess how much of each value was present in a governance decision outcome that has already occurred. Unfortunately, the need is not just for accurately assessing past efforts but for developing confidence in how a future situation is likely to turn out. Decision makers approaching a matter of governance are likely more concerned with predicting how different choices are expected to exhibit the positive qualities of each schematic lens.

With enough data, decision makers could eventually learn enough to account for many of the potential confounding variables, interaction effects, and situational influences. Acquiring that level of precision would allow for decision makers to far more accurately identify the governance approach that would optimize all four influences simultaneously. Until that point is reached, decision makers looking to strike a balance between schematic perspectives could attempt a different approach. Functional holistic governance could be sought by trying to deliberately maximize the political philosophy and core value of each schematic lens.

The maximization approach has subtle differences from the optimization approach, but it might be a useful alternative for seeking holistic governance until the necessary information is available. The difference between the two is that the optimization approach looks to increase each schematic lens' influence only to the point that there is a reduction in one of the other influences, but the maximization approach merely attempts to develop and incorporate as much of each schematic lens' influence as possible for each situation. The maximization approach does not artificially limit the potential incorporation of some perspective because of a predicted concern that the influence of another perspective will be reduced. The maximization approach would essentially use four separate efforts working in parallel (opposed to conditionally, in an optimization approach) in order to identify a desirable, holistic governance solution. For the maximization approach, a suboptimal outcome is fully expected because it is anticipated that either (1) the desired increase in one influence will cause an undesired decrease in another influence or (2) the unique interactive effect between the influences for that particular situation mean that a pure maximization of influences never achieves the most desirable outcome.

Despite a suboptimal outcome, the maximization approach could be a worthy initial substitute for seeking to achieve holistic governance because it has several potential benefits.

The overt usage of the maximization approach would draw attention to each schematic influence in areas where one or more perspectives might otherwise have been easily overlooked. The approach could also be expected to promote the deliberate discourse of a shared goal and, necessarily, better articulation of that goal. It would help prevent the nonrational decision maker from having to confront the complex decision making processes that could cause cognitive gridlock, and it could also prevent a focus on governance prediction by replacing it with a focus on governance composition. The maximization approach likely allows decision makers to focus on simple, “within domain” tradeoffs between options that deliver varying amounts of each perspective’s values. There is also a high likelihood that a deliberate attempt to increase the positive influences of each schematic lens will result in each perspective being significantly incorporated into the governance choice that is eventually selected. Finally, it might be accurate to say that the worst thing that could happen is a highly efficient, effective, ethical, and equitable governance approach to be adopted.

The maximization approach can be visually represented and incorporated into the nonrational shared mental model presented in this work by identifying the positive aspects of each influence as if they were additional ideologies that could be selected. They are presented below as ideologies numbered 13 through 16 and shown together in Figure 23. These influences are presented in the first diagram as individual factors contributing to the attainment of holistic governance. The second diagram, Figure 24, then presents holistic governance as its own potential governance ideology to express preference for and sets it within the context of the other core ideologies presented in this work.

13. *Enhancing the influence of statism through improvements in efficiency.*
14. *Enhancing the influence of the communitarian through improved ethics.*
15. *Enhancing the influence of the groupism through improved effectiveness.*
16. *Enhancing the influence of the liberalism through improved justice.*

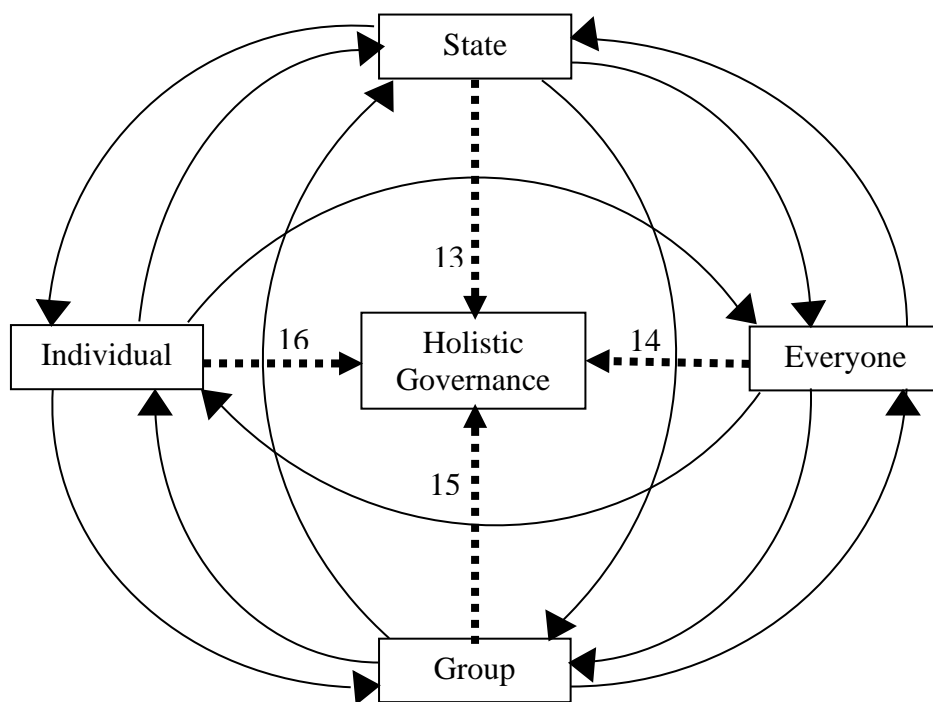


Figure 23. The development of Holistic Governance.

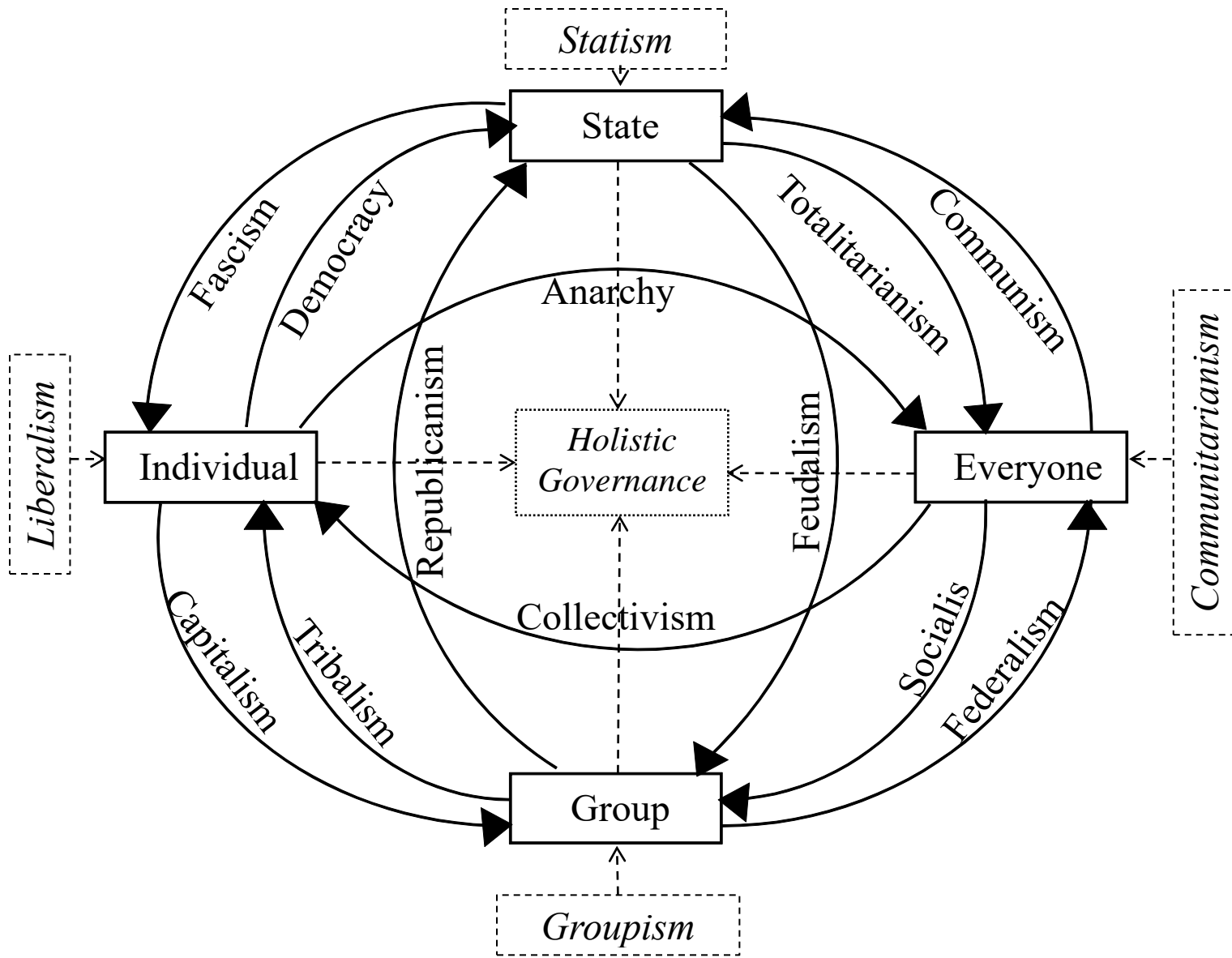


Figure 24. Holistic governance presented as an ideological option.

Thought Experiment #4

The concept of holistic governance is assumed to be a rather desirable goal for most governance decision makers. However, environments that are explicitly unlike the governance situations that could be expected to occur from an emphasis on seeking holistic governance are the focus of thought experiment #4. In terms of theoretical implications, this research has explored so far (a) what happens when the competition between two schematic lenses is resolved (ideology), (b) what might be happening in terms of the predominant ideology in a nation-state when one schematic lens becomes more powerful, (c) how real-life government environments may be more accurately represented by some form of prioritization structure among all four potential schematic lenses, and (d) what it might look like for policymakers to strive for a balanced approach to governance through a holistic approach. As a final experiment, this research questions what a governance environment might look like if one of the four schematic lenses were functionally absent from a particular governance environment.

If all of the proposed schematic lenses present values that are believed to be inherently equivalent to one another and if each value is also believed to be cognitively accessible to the typical decision maker, then it stands to reason that a normal governance environment would exhibit some degree of influence from each schematic lens. There may, however, be governance environments where, for some reason, one of these normally included schematic lenses was not present. It is proposed here that if this occurred there could be a significant and distinguishable impact on how people in that environment lived.

To refer back to thought experiment #2, three of the presented preference structure diagrams implicitly called into question if there was any relevance or practical significance to including a fourth schematic lens. It may be important to explore this possible feature of some

governance environments. Saying that a schematic lens does not have a significant influence on governance decisions may be the same as saying that that schematic lens is not functionally present or at all relevant in the minds of decision makers. For some governance environments, there may be a difference between a schematic lens having at least a 1% chance of having influence and having a 0% chance of impacting governance decisions. For the situations labeled conceptually as being at least 1% concerned with the perspectives derived from a particular schematic lens, maybe there are factors that serve as moderating factors that could temporarily flip the ranking of schematic preferences in some way.

This thought experiment, however, is about exploring governance environments where even the potential effect of a schematic lens having an influence through a moderating factor is not possible. In these environments, the entire set of concepts derived from one of the schematic lenses is absent. This absence could theoretically occur because that lens' concepts are forbidden, selected out of existence, functionally unable to be used, or simply have not been thought of yet because of the population's stage of development or isolation. Such claims could challenge the assumed universality of the governance schematic lenses proposed in this work, but this thought experiment is not meant to directly challenge those assumptions as much as explore alternate possible governance dynamics that could occur.

The governance environments presented in this last thought experiment might be able to be characterized as "fundamentally flawed." Each of the four fundamentally flawed governance environments exhibits a complete lack of influence from one of the schematic lenses. The political philosophy representative of each schematic lens is used here to identify each of these environments. The environment that lacks liberalism is labeled with a "A," the environment that lacks groupism is labeled with a "B," the environment that lacks communitarianism is labeled

with a “C,” and the environment that lacks statism is labeled with a “D.” The diagram below depicts these arrangements. Each of these four environments will be explored individually in the following paragraphs. Figure 25 below depicts the components missing from each combination.

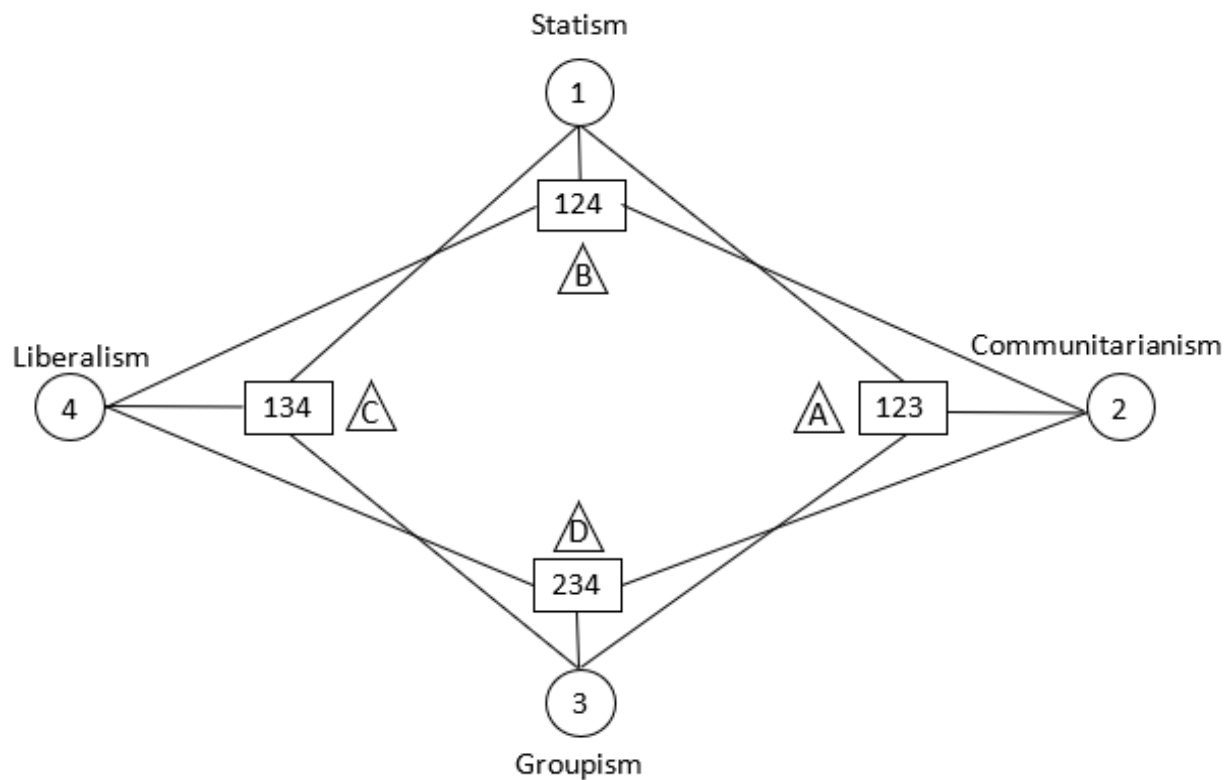


Figure 25. Environments lacking a core schematic frame.

The governance environment labeled with an “A” includes every schematic influence but liberalism. This means that this environment would have little concern for the importance of individual agency or family structures. This environment would have the influences of authority, society, and group affiliations, but it would not have people concerned with a sense of self-

interest and a desire for equity throughout the population. This sort of environment could be a very unequal society, have great disparities between people, generally lack a sense of justice for individuals, or have a constant sense of unrest that needs to be managed in some way. An environment that has these features might look similar to a caste system.

The governance environment labeled with an “B” includes every schematic influence but groupism. This means that the environment would have little concern for the importance of smaller, subset communities. This environment would have the influences of authority, society, and self-interest, but it would not have people particularly concerned with group affiliations. This sort of environment could be very ineffective when it came to achieving any particular governance initiative that looks to advance the development of a people. An environment lacking the influence of groupism would have no suborganization below the nation as a whole, have few intentional and coordinated efforts by different groups of people to achieve various desired goals, be classless, and link individuals to society through strong ceremonial displays. This sort of governance environment might see little need for different types of government services to be produced and have little structure in place to deliver such services. An environment that has these features might look similar to a remote island community.

The governance environment labeled with an “C” includes every schematic influence but communitarianism. This means that the environment would have little concern for the importance of collective will for a society. This environment would have the influences of authority, group affiliations, and self-interest, but it would not have people particularly concerned with the righteousness of society’s ways. This sort of environment would act in very unethical ways. It could easily become corrupt and commit atrocities, but given the characteristics it does have, it could however be agile and domineering. An example of a

governance environment that best characterizes these sorts of tendencies might be Hitler's Third Reich in Nazi Germany.

The governance environment labeled with an "D" includes every schematic influence but statism. This means that the environment would have little concern for the importance of top-down state control. This environment would have the influences of society, group affiliations, and self-interest, but it would lack the influences associated with an overarching state authority. This sort of governance environment would be highly inefficient in its attempts to achieve nation-level socio-political endeavors. A population of people living in this type of environment would be comparatively weak compared to other nation-states, have unsettled lands with nomadic groups, and lack the ability to be strongly united through leadership towards some cause. People that live in this sort of governance environment might be characterized as "barbarians."

REFERENCES

- Abimbola K. (2002). Abductive reasoning in law: Taxonomy and inference to the best explanation. In, MacCrimmon M., & Tillers P. (Eds), *The dynamics of judicial proof: Studies in fuzziness and soft computing*. Heidelberg, New York: Physica.
- Anderson, J. (1990). *The adaptive character of thought*. Hillsdale, NJ: Erlbaum.
- Anderson, M. (2012). Legitimacy in state-building: A review of the IR literature. *International Political Sociology*, 6, 205-219.
- Anderson, T., Schum, D., & Twining, W. (2005). *Analysis of Evidence (2nd Ed.)*. Cambridge, England: Cambridge University Press.
- Ansell, C. (2007). Sociology of governance. In Bevir, M. (Ed.), *Encyclopedia of governance* (902-909). Thousand Oaks, SAGE Publications.
- Baldacchino, C., Armistead, C., & Parker, D. (2002). Information overload: It's time to face the problem. *Management Services Journal*, 46, 18–19.
- Barro, S., & Marín, R. (Eds.). (2013). *Fuzzy logic in medicine*. Heidelberg, NY: Physica.
- Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge England: Cambridge University Press.
- Bawden, D. (2001). Information overload. *Library & Information Briefings*, 92, 1–15.
- Beals, D. E. (1998). Reappropriating schema: Conceptions of development from Bartlett and Bakhtin. *Mind, Culture, and Activity*, 5(1), 3-24.
- Bentham, J. (1789). *Principles of morals and legislation*. Oxford, UK: Oxford University Press.
- Bettman, J., Luce, M., & Payne, J. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, 25, 187–217.
- Bevir, M. (2013). *Governance: A very short introduction*. Oxford, UK: Oxford University Press.

- Bishop, P. (2006). Effectiveness, efficiency, and equity. *Australian Journal of Public Administration*, 65(2), 108-109.
- Bjornskov, C. (2010). How does social trust lead to better governance? An attempt to separate electoral and bureaucratic mechanisms. *Public Choice*, 144, 323-346.
- Brewer, W., & Nakamura, G. (1984). The nature and functions of schemas (Technical Report No. 325). University of Illinois at Urbana-Champaign: Center for the Study of Reading. Retrieved from https://www.ideals.illinois.edu/bitstream/handle/2142/17542/ctrstreadtechrepv01984i00325_opt.pdf?s.
- Brownstein, A. (2003). Biased predecision processing. *Psychological Bulletin*, 129(4), 545-568.
- Brudney, J., Fernandez, S., Ryu, J., & Wright, D. (2004). Exploring and explaining contracting out: Patterns among the American states. *Journal of Public Administration Research and Theory*, 15(3), 393-419.
- Callahan, J. (2015). *Armed humanitarian intervention: The role of powerful leaders in framing and the national security decision making process* (Unpublished doctoral dissertation). Old Dominion University, Norfolk, Virginia.
- Cameron, W. (2004). Public accountability: Effectiveness, equity, ethics. *Australian Journal of Public Administration*, 63(4), 59-67.
- Campitelli, G., & Gobet, F. (2010). Herbert Simon's decision-making approach: Investigation of cognitive processes in experts. *Review of General Psychology*, 14(4), 354-364.
- Cannon-Bowers, J., & Salas, E. (2001). Reflections on team cognition. *Journal of Organizational Behavior*, 22, 195-202.
- Cohen L. (1981). Can human irrationality be experimentally demonstrated? *Behavioral and Brain Sciences*, 4, 317-370.

- Cohen, M., March, J., & Olsen, J. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly*, 17(1), 1-25.
- Cohen, S. (1993). Defining and measuring effectiveness in public management. *Public Productivity & Management Review*, 17(1), 45-57.
- Connolly, T., & Ordóñez, L. (2005). Judgment and decision making. In W. Borman, D. Ilgen, & R. Klimoski (Eds.), *Handbook of Psychology, Volume 12, Industrial and Organizational Psychology* (493-517). Hoboken, NJ: John Wiley & Sons.
- Copi, I. (1961). *Introduction to logic*. London: Macmillan.
- Copi, I., & Burgess-Jackson, K. (1995). *Informal logic*. Upper Saddle River, NJ: Prentice Hall.
- Darwin, C. (1859). *On the origin of species: By means of natural selection, or the preservation of favoured races in the struggle for life*. London, England: John Murray.
- Douven, I. (2017). Abduction. In E.N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University. Retrieved from <https://plato.stanford.edu/archives/sum2017/entries/abduction/>
- Downs, A. (1957). *An economic theory of democracy*. New York, NY: Addison Wesley.
- Einhorn, H. J., & Hogarth, R. M. (1981). Behavioral decision theory: Processes of judgment and choice. *Annual Review of Psychology*, 32, 52-88.
- Elcock, H. (2012). Ethics and the public interest: A question of morality. *Teaching Public Administration*, 30(2), 115–123.
- Encyclopedia Britannica Online. (2019). Retrieved from <https://www.britannica.com/>.
- Fagerholm, A. (2016). Ideology: A proposal for a conceptual typology. *Social Science Information*, 55(2), 137-160.

- Feigenbaum, H., & Henig, J. (1994). The political underpinnings of privatization: A typology. *World Politics, 46*(2), 185-208.
- Frederickson, H. (1990). Public administration and social equity. *Public Administration Review, 50*, 228–237.
- Frederikson, H., Smith, K., Larimer, C., & Licari, M. (2016). *The public administration theory primer*. Boulder, CO: Westview Press.
- Fukukura, J, Ferguson, M, & Fujita, K. (2013). Psychological distance can improve decision making under information overload via gist memory. *Journal of Experimental Psychology: General, 142*(3), 658-665.
- Geertz C. (1964). Ideology as a cultural system. In: D. Apter (Ed.), *Ideology and discontent* (pp. 47-76). New York, NY: The Free Press.
- Gerwig, R. (1961). Public authorities in the United States. *Law and Contemporary Problems, 26*(4), 591-618.
- Gigerenzer, G. (1996a). On narrow norms and vague heuristics: A reply to Kahneman and Tversky. *Psychological Review, 103*, 592–596.
- Gigerenzer, G. (1996b). The psychology of good judgment: Frequency formats and simple algorithms. *Medical Decision Making, 16*, 273–280.
- Gigerenzer, G. (2001). Decision making: Nonrational theories. *International Encyclopedia of the Social and Behavioral Sciences, 5*, 3304-3309.
- Gigerenzer, G., & Murray, D. J. (1987). *Cognition as intuitive statistics*. Hillsdale, NJ: Erlbaum.
- Gobet, F., & Simon, H. (1996). Templates in chess memory: A mechanism for recalling several boards. *Cognitive Psychology, 31*, 1–40.

- Goldsmith, S., & Eggers, W. (2004) *Governing by network: The new shape of the public sector*. Washington, D.C.: Brookings Institution.
- Goldstein, D., & Gigerenzer, G. (2002). Models of ecological rationality: The recognition heuristic. *Psychological Review*, 109, 75–90.
- Greve, C., & Hodge, G. (2011). A transformative perspective on public-private partnerships. In Christensen, T. & Laegreid, P. (Eds.), *The Ashgate Research Companion to New Public Management* (pp. 265-277). Burlington, VT: Ashgate Publishing Company.
- Haig, B. (2005). An abductive theory of scientific method. *Psychological Methods*, 10(4), 371-388.
- Halpern, J. (1998). *Debating rationality*. New York, NY: Ithica Press.
- Hayes, M. (2007). Incrementalism. In Bevir, M. (Ed.), *Encyclopedia of governance* (441-442). Thousand Oaks, SAGE Publications.
- Heath, A. (1976). *Rational choice and social exchange: A critique of exchange theory*. Oxford, UK: Oxford University Press.
- Henderson, M., Fujita, K., Trope, Y., & Liberman, N. (2006). Transcending the “here:” The effect of spatial distance on social judgment. *Journal of Personality and Social Psychology*, 91, 845– 856.
- Hindmoor, A. (2006). *Rational choice*. New York, NY: Palgrave MacMillan.
- Hirshleifer, J. (1995). Anarchy and its breakdown. *Journal of Political Economy*, 103(1), 26-52.
- Hodge, G., Greve, C., & Boardman, A. (Eds.). (2010). *International Handbook on Public-Private Partnerships*. Cheltenham, UK: Edward Elgar Publishing.
- Hoffman, M. (2010). “Theoric transformations” and a new classification of abductive inferences. *Transactions of the Charles S. Peirce Society*, 46(4), 570-590.

- Hogarth, R. (1981). Beyond discrete biases: Functional and dysfunctional aspects of judgmental heuristics. *Psychological Bulletin*, 90(2), 197-217.
- Hogarth, R. (1987). *Judgement and choice* (2nd ed.). New York: Wiley.
- Hogarth, R., & Karelaia, N. (2007). Heuristic and linear models of judgment: Matching rules and environments. *Psychological Review*, 114(3), 733-758.
- Hood, C. (1991). A public management for all seasons? *Public Administration*, 69, 3-19.
- Hufty, M. (2011). Investigating policy processes: The governance analytical framework (GAF). In Wiesmann, U., & Hurni, H., (Eds.), *Research for sustainable development: Foundations, experiences, and perspectives*, (pp. 403-424). Bern, Switzerland: Geographica Bernensia.
- Hughes, O. (2012). *Public Management & Administration*. Palgrave Macmillan, New York, NY.
- Huntington, S. (1968). *Political Order in Changing Societies*. New Haven, CT: Yale University Press
- Jacoby, J. (1984). Perspectives on information overload. *Journal of Consumer Research*, 10, 432-435.
- James, P. D. (1989). *An unsuitable job for a woman*. London: Penguin Books.
- Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.
- Jones, B. (2003). Bounded rationality and political science: Lessons from Public Administration and Public Policy. *Journal of Public Administration Research and Theory*, 13(4), 395-412.
- Jonker, C., Riemsdijk, M., & Vermeulen, B. (2010). Shared mental models. A conceptual analysis. *Proceedings of the 9th International Conference on Autonomous Agents and*

- Multiagent Systems (AAMAS 2010)*, van der Hoek, Kaminka, Lesperance, Luck, and Sen (Eds.), May 10-14, 2010, 132-151. Toronto, Canada.
- Josephson, J., & Josephson, S. (Eds.). (1994). *Abductive Inference*, Cambridge, England: Cambridge University Press.
- Jungermann, H. (1983). The two camps on rationality. In Scholz, R. (Ed.), *Decision making under uncertainty* (pp. 63–86). Amsterdam: Elsevier.
- Kahneman, D., & Tversky, A. (1972). Subjective probability: A judgment of representativeness. *Cognitive Psychology*, 3(3), 430-454.
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, 80, 237-251.
- Kahneman, D., & Tversky, A. (1979). Intuitive prediction: Biases and corrective procedures. *TIMS Studies in Management Science*, 12, 313-327.
- Kahneman, D., & Tversky, A. (1982a). On the study of statistical intuitions. *Cognition*, 11, 123-141.
- Kahneman, D., & Tversky, A. (1982b). Variants of uncertainty. *Cognition*, 11, 143-157.
- Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American Psychologist*, 39(4), 341-350.
- Kant, I. (1929). *Critique of pure reason* (N. K. Smith, translation.). New York: St. Martin's Press.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2003). Governance matters III: Governance indicators for 1996–2002. *Policy Research Working Paper Series*, no. WPS 3106. Washington, DC: World Bank.

- Keefer, P. (2004). A review of the political economy of governance: from property rights to voice. *Policy Research Working Paper Series, no. WPS 3315*. Washington, DC: World Bank.
- Kettl, D. (1993). *Sharing Power: Public Governance and Private Markets*. Washington, DC: Brookings.
- Kettl, D. (2018). *Politics of the administrative process*. Los Angeles, CA: CQ Press.
- Kingdon, J. W. (1995). *Agendas, alternatives and public policies*. New York, NY: Harper Collins.
- Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge, England: Cambridge University Press.
- Klayman J., & Brown K. (1993). Debias the environment instead of the judge: an alternative approach to reducing error in diagnostic (and other) judgment. *Cognition, 49*, 97–122.
- Klijin, E., Edelnbos, J., Kort, M., & van Twist, M. (2008). Facing management choices: An analysis of managerial choices in 18 complex environmental public-private partnership projects. *International Review of Administrative Sciences, 74*(2), 251-278.
- Klimoski, R., & Mohammed, S. (1994). Team mental model: Construct or metaphor? *Journal of Management, 20*(2), 403-437.
- Kolderie, T. (1986). The two different concepts of privatization. *Public Administration Review, 46*(4), 285-291.
- Krugman, P., & Wells, R. (2012). *Economics* (3rd ed.). New York, NY: Worth Publishers.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*, 480–498.
- Laswell, H. (1936). *Politics; who gets what, when, how*. New York, NY: McGraw-Hill.

- Leavitt, W., & Morris, J. (2004). In search of middle ground: Public authority as an alternative to privatization. *Public Works Management Policy*, 9(2), 154-163.
- Lee, B., & Lee, W. (2004). The effect of information overload on consumer choice quality in an on-line environment. *Psychology & Marketing*, 21, 159–183.
- Lindblom, C. (1959). The science of 'muddling through.' *Public Administration Review*, 19, 79–88.
- Lipton, P. (2004). *Inference to the Best Explanation (2nd Ed.)*. London, England: Routledge.
- Lopes L. (1982). Doing the impossible: a note on induction and the experience of randomness. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 8, 626–636.
- Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1997). Privatization in the United States. *The RAND Journal of Economics*, 28(3), 447-471.
- Lord, R. & Maher, K. (1991) *Leadership and information processing: Linking perception and performance*. Boston, MA: Unwin Hyman.
- MacCrimmon, M., & Tillers, P. (2002). *The Dynamics of Judicial Proof*. Heidelberg, New York: Physica-Verlag.
- Magnani, L. (2001). *Abduction, reason, and science: Process of discovery and explanation*. New York: Plenum Publishers.
- Makrydemetres, A. (2002). Dealing with ethical dilemmas in PA: The 'ALIR' imperatives of ethical reasoning. *International Review of Administrative Sciences*, 68, 251-256.
- Malhotra, N. K. (1982). Information load and consumer decision making. *Journal of Consumer Research*, 8, 419–430.
- Marshall, S. P. (1995). *Schemas in problem solving*. Cambridge, UK: Cambridge University Press

- McCrae, R., & Costa, P., Jr. (1985). Updating Norman's "adequate taxonomy:" Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology*, 49, 710-721.
- McKenzie C., Mikkelsen L. (2000). The psychological side of Hempel's paradox of confirmation. *Psychonomic Bulletin and Review*, 7, 360–366.
- McKenzie, C. (2005). Judgment and decision making. In Lamberts, K., & Goldstone, R. (Eds.), *Handbook of Cognition* (pp. 322-339). London: SAGE Publications Ltd.
- McMahon, A. (1994). *Understanding language change*. Cambridge, England: Cambridge University Press.
- McNamara, M., & Morris, J. (2008). Walking the hire wire: A practical guide for balancing accountability and competition in public works service arrangements. *Public Works Management & Policy*, 12(4), 568-577.
- McVee, M., Dunsmore, K., & Gavelek J. (2005). Schema theory revisited. *Review of Educational Research*, 75(4), 531-566.
- Mehta, M. (2007). Good governance. In Bevir, M. (Ed.), *Encyclopedia of governance* (pp. 360-363). Thousand Oaks: SAGE Publications.
- Mendoza, M., & Gutierrez-Pena, E. (2010). Decision theory. *International Encyclopedia of Education*, 3, 119-124.
- Merriam-Webster Dictionary Online. (2019). Retrieved from <https://www.merriam-webster.com>.
- Middleton, D., & Crook, C. (1996). Bartlett and socially ordered consciousness: A discursive perspective: Comments on Rosa. *Culture & Psychology*, 2, 379-396.
- Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81–97.

- Miller, S. (2019). Social institutions. In E.N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University. Retrieved from <https://plato.stanford.edu/archives/sum2019/entries/social-institutions/>
- Mills, J. (1968). Interest in supporting and discrepant information. In R. Abelson et al. (Eds.), *Theories of cognitive consistency: A source book*, (pp. 771–776). Chicago: Rand McNally.
- Mintzberg, H., Raisinghani, D., & Theoret, A. (1976). The structure of “unstructured” decision processes. *Administrative Science Quarterly*, 21(2), 246-275.
- Montgomery, H., & Willen, H. (1999). Decision making and action: The search for a good structure. In P. Jusslin & H. Montgomery (Eds.), *Judgment and decision making: Neo-Brunswikian and process-tracing approaches* (pp. 147–173). Mahwah, NJ: Erlbaum.
- Moulton, S., & Wise, C. (2010). Shifting boundaries between the public and private sectors: implication from the economic crisis. *Public Administration Review*, 70(3), 349-360.
- National Academy of Public Administration (NAPA). (2000). *Standing Panel on Social Equity in Governance*. Retrieved from www.napawash.org.
- Nitta, K. (2007). Decision making. In Bevir, M. (Ed.), *Encyclopedia of governance* (200-203). Thousand Oaks, California: SAGE Publications.
- Norman-Major, K. (2011). Balancing the four Es; or Can we achieve equity for social equity in public administration? *Journal of Public Affairs Education*, 17(2), 233-252.
- Norman-Major, K. (2012). *The four E's of great governance*. Minnesota Cities: Governing Your City.

- Nyhlen, J., & Liden, G. (2011). *Decision-making in a governance context: An analytical framework* (Unpublished paper presented at the XX NORKOM, Nordiska kommunforskningskonferensen in Göteborg, 24-25 November, 2011).
- Olsen, W. (2004). Triangulation in social research: Qualitative and quantitative methods can really be mixed. In, Holborn, M. (Ed.), *Developments in Sociology: An Annual Review, Vol 20*. Harlow Essex, UK: Causeway Press.
- Otrusinova, M., & Pastuszkova, E. (2012). Concept of 3 E's and public administration performance. *International Journal of Systems Applications, Engineering, & Development, 2*(6), 171-178.
- Paavola, S. (2014). *From steps and phases to dynamically evolving abduction*. A paper presented at the Charles S. Peirce International Centennial Congress, Invigorating Philosophy for the 21st Century, July 16-19. Lowell, USA.
- Payne, J. (1982). Contingent decision behavior. *Psychological Bulletin, 92*(2), 382-402.
- Peirce, Charles Sanders (1931). *The collected papers of Charles S. Peirce* (Vol. 8). Cambridge: Harvard University Press.
- Perry, S. (2005). *Social equity for the long haul: Preparing culturally competent public administrators*. Retrieved from ProQuest Dissertations & Theses Global.
- Phillips, L. (1983). A theoretical perspective on heuristics and biases in probabilistic thinking. In P. Humphreys, O. Svenson, & A. Vari (Eds.), *Analyzing and aiding decision processes*, (pp. 525–543). Amsterdam: North Holland
- Piaget, J. (1952). *The origins of intelligence in children* (Margaret Cook, Trans). New York: International Universities Press.

- Poole, P., Gray, B. & Gioia, D. (1990). Organizational Script Development Through Interactive Accommodation. *Group and Organization Studies*, 15(2): 212–233.
- Pople, H. E. (1973). On the mechanization of abductive logic. *Artificial Intelligence Journal*, 73, 147-152.
- Psillos, S. (1999). *Scientific Realism: How Science Tracks Truth*. London: Routledge.
- Putnam, R. (1993). Making democracy work. Civic traditions in modern Italy. Princeton: Princeton University Press.
- Ramsbotham, O., Woodhouse, T., & Miall, H. (2011). *Contemporary Conflict Resolution: The prevention, management, and transformation of deadly conflicts (3rd Ed.)*. Cambridge, UK: Polity Press.
- Rees, R. (1984). *Public Enterprise Economics, 2nd Ed.* London, UK: Weidenfeld & Nicolson Publishers.
- Reichertz, J. (2004). Abduction, deduction, and induction in qualitative research. In U. Flick, E. von Kardoff, & I. Steinke (Eds.), *A companion to qualitative research*, (pp. 150–164). London: Sage.
- Reichertz, J. (2010). Abduction: The logic of discovery of grounded theory. *Qualitative Social Research*, 11(1), 13.
- Rejón Altable, C. (2012). Logic structure of clinical judgment and its relation to medical and psychiatric semiology. *Psychopathology*, 45(6), 344–531.
- Rhodes, R. (1996). The new governance: Governing without government. *Political Studies*, 44, 652-667.

- Riker, W. (1990). Political science and rational choice. In Alt, J. & Shepsle, K. (Eds.), *Perspectives on positive political economy* (163-181). Cambridge, UK: Cambridge University Press.
- Rogerson, M., Gottlieb, M., Handelsman, M., Knapp, S., & Younggren, J. (2011). Nonrational processes in ethical decision making. *American Psychologist*, *66*(7), 614-623.
- Rowe, C. (1976) *An Introduction to Greek Ethics*. London: Hutchinson University Library.
- Rumelhart, D. (1984). Schemata and the cognitive system. In R. Wyer & T. Srull, *Handbook of social cognition* (pp. 161-188). Hillsdale, NJ: Lawrence Erlbaum.
- Rumelhart, D., & Ortney, A. (1977). The representation of knowledge in memory. In R. Anderson, R. Spiro, & W. Montague (Eds.), *Schooling and the acquisition of knowledge* (pp. 99-135). Hillsdale, NJ: Lawrence Erlbaum.
- Saito, A. (1996). Social origins of cognition: Bartlett, evolutionary perspective and embodied mind approach. *Journal for the Theory of Social Behavior*, *26*(4), 399-421.
- Saito, A. (Ed.). (2000). *Bartlett, culture and cognition*. London: Psychology Press.
- Sandywell, B. (2011). *Dictionary of visual discourse: A dialectical lexicon of terms*. New York, NY: Routledge.
- Savas, E. (1987). *Privatization: The Key to Better Government*. Chatham, NJ: Chatham House.
- Schafritz, J., & Russell, E. (1997). *Introducing Public Administration*. New York, NY: Addison Wesley Longman.
- Schick, A. G., Gorden, L. A., & Haka, S. (1990). Information overload: A temporal approach. *Accounting Organizations and Society*, *15*, 199-220.
- Seel, N. (2012). *Encyclopedia of the Sciences of Learning*. Retrieved from <https://link-springer-com.proxy.lib.odu.edu/>.

- Shafir, E., Simonson, I., & Tversky, A. (1993). Reason-based choice. *Cognition*, 49, 11–36.
- Shaw, E. (2007). Garbage can theory. In Bevir, M. (Ed.), *Encyclopedia of governance* (pp. 336-340). Thousand Oaks, California: SAGE Publications.
- Sheeran, P. (1993). *Ethics in Public Administration: A Philosophical Approach*. Westport, CT: Praeger Publishers.
- Shergold, P. (2014). Peter Shergold: Ditch the old public service model. *The Mandarin*. Retrieved from <https://www.themandarin.com.au/861-ditch-old-public-service-model-says-shergold/>.
- Shestack, J. (1957). The public authority. *University of Pennsylvania Law Review*, 105(4), 553-569.
- Simon, H. (1947). *Administrative behavior: A study of decision-making processes in administrative organizations (4th ed.)*. New York: Free Press
- Simon, H. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99-118.
- Simon, H. (1976). From substantive to procedural rationality. In T. Kastelein, S. Kuipers, W. Nijenhuis, & G. Wagenaar (Eds). *25 Years of Economic Theory*. Boston, MA: Springer.
- Skelcher, C. (2005). Public Private Partnerships and Hybridity. In Ferlie, E., Lynn, L., & Pollitt, C. (Eds.), *The Oxford Handbook of Public Management*. Oxford, UK: Oxford University Press.
- Smith, A. (2007). Public administration. In Bevir, M. (Ed.), *Encyclopedia of governance*, (pp. 759-765). Thousand Oaks, SAGE Publications.
- Stoker, G. (1998). Governance as theory: Five propositions. *International Social Sciences Journal*, 55(155), 17-28.

- Storey, L. (2006). *Humanity or Sovereignty: A Political Roadmap for the 21st Century*. New York, NY: Peter Lang Publishing.
- Svara, J. H., & Brunet, J. R. (2004). Filling the skeletal pillar: Addressing social equity in introductory courses in public administration. *Journal of Public Affairs Education, 10*(2), 99-109.
- Svara, J. H., & Brunet, J. R. (2005). Social equity is a pillar of public administration. *Journal of Public Affairs Education, 11*(3), 253-258.
- Svennevig, J. (1997). Abduction as a methodological approach to the study of spoken interaction. *Lecture notes from the University of Oslo, Norway*.
- Thagard, P. (1988). *Computational philosophy of science*. Cambridge, MA: MIT Press.
- Thagard, P. (1992). *Conceptual revolutions*. Princeton, NJ: Princeton University Press.
- Timmons, S., & Tavory, I. (2012). From grounded theory to abductive analysis. *Sociological Theory, 30*(3), 167-186.
- Tversky, A., & Kahneman, D. (1971). Belief in the law of small numbers. *Psychological Bulletin, 76*(2), 105-110.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology, 4*, 207-232.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*, 1124-1131.
- Tversky, A., & Kahneman, D. (1980). Causal schemas in judgments under uncertainty. In Fishbein, M. (Ed.), *Progress in Social Psychology* (pp. 84-98). Hillsdale, NJ: Erlbaum
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science, 211*, 453-458.

- Tversky, A., & Kahneman, D. (1982). Evidential impact of base rates. In Kahneman, D, Slovic, P., & Tversky, A. (Eds.), *Judgment under uncertainty: Heuristics and biases* (pp. 153-163). Cambridge, England: Cambridge University Press.
- Tversky, A., & Kahneman, D. (1983). Extensional versus intuitive reasoning: The conjunction fallacy in probability judgment. *Psychological Review*, 90, 293–315.
- Tversky, A., & Kahneman, D. (1986). "Rational choice and the framing of decisions." *The Journal of Business*, 59(4), part 2, 251-278.
- Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference dependent model. *Quarterly Journal of Economics*, 107(4), 1039-1061.
- Tyson, C. (2007). Optimal decision making. In Bevir, M. (Ed.), *Encyclopedia of governance* (pp. 637-638). Thousand Oaks, California: SAGE Publications
- van Andel, P., & Bourcier, D. (2002). Serendipity and abduction in proofs, presumptions, and emerging laws. In, MacCrimmon, M., & Tillers, P. (Eds.), *The Dynamics of Judicial Proof* (pp. 273-286). Heidelberg, New York: Physica-Verlag.
- Vernon, R. (1984). Linking managers with ministers: Dilemmas of the state-owned enterprise. *Journal of Policy Analysis and Management*, 4(1), 39-55.
- Vlastos, G. (1991) *Socrates: Ironist and Moral Philosopher*. Cambridge: Cambridge University Press.
- Wakslak, C., Trope, Y., Liberman, N., & Alony, R. (2006). Seeing the forest when entry is unlikely: Probability and the mental representation of events. *Journal of Experimental Psychology: General*, 135, 641–653.

- World Bank. (2014). Thinking with mental models. In World Bank (Ed.), *World Development Report 2015: Mind, Society, and Behavior* (pp. 62-75). Washington, D.C.: World Bank Publications.
- Yamamoto, A. (2000). Using abduction for induction based on bottom generalization. In, Flach, P., & Hadjiontonis, A. (Eds.), *Abduction and induction: Essays on their relation and integration* (pp. 267-280). Norwell, MA: Kluwer Academic Publishers.
- Yates, J. (1990). *Judgment and decision making*. Englewood Cliffs, NJ: Prentice Hall.
- Zalta, E. (Ed.). (2019). *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University. Retrieved from <https://plato.stanford.edu/archives/sum2017/entries/abduction/>.
- Zengxian, W. (1997). How successful has state-owned enterprise reform been in China? *Europe-Asia Studies*, 49(7), 1237-1262.
- Zwald, Z. (2007). Problem structure. In Bevir, M. (Ed.), *Encyclopedia of governance*, (pp.750-751). Thousand Oaks, California: SAGE Publications.

VITA

Matt Loesch is a doctoral student in the department of Public Policy & Administration at Old Dominion University. This department is located at Constant Hall, Room 2048, 1298 W 49th St., Norfolk, VA 23508. Matt Loesch has previously received a Master of Science degree in Industrial/Organizational Psychology from Old Dominion University in 2010 and a Bachelor of Arts degree with the double majors of Psychology and Business Administration from Muhlenberg College in 2007.