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Transformation Paradox: A Framework for the Analysis of Politics in Enterprise Transformations

Cindy S. Miller
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**TRANSFORMATION PARADOX: A FRAMEWORK FOR THE
ANALYSIS OF POLITICS IN ENTERPRISE TRANSFORMATIONS**

By

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ABSTRACT
**TRANSFORMATION PARADOX: A FRAMEWORK FOR THE
ANALYSIS OF POLITICS IN ENTERPRISE TRANSFORMATIONS**

Cindy S. Miller
Old Dominion University, 2009
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The purpose of this research is to develop a theoretical framework for the analysis of politics in enterprise transformations using a dialectical analysis approach (Hegel, 1989; Heraclitus, 1979; Pinkard, 1988; Skinner, 1978a, 1978b) and conduct an evaluation of the framework validity. The framework is constructed using a dialectical analysis of concepts stemming from the work of Alford and Friedland (1992) and considers four theoretical perspectives: autocratic, bureaucratic, pluralistic, and cognitive. The framework is then validated by means of qualitative metrics and adherence to critical ideology.

This research addresses the problem that there is no holistic theoretical framework for the analysis of politics across the systemic, situational, and structural contexts found in enterprise transformations. Politics occurs at multiple levels in the enterprise making it difficult to identify the salient issues that need to be addressed in support of transformation. Transformations can be paradoxical as enterprises revert to the dominant paradigm that affirms present realities rather than developing a critical posture to break the constraining paradigm. The dialectical approach used embraces the power of multiple theoretical perspectives in the transformation process, asserting that theories have power over actions, behaviors, and language.

The theoretical framework allows for the simultaneous existence of shifting states of cooperation, frustration, and paradigmatic hegemony over systemic, situational, and structural contexts that embody politics in enterprise transformations. Rough set theory is used to demonstrate the ability of the framework to be adaptive and to evolve based on the inclusion of new data. I conclude that the deployment of an evolving framework of this magnitude may have a significant impact on the management of transformation efforts and suggest new areas of research to further the work.

This thesis is dedicated to my husband.

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CHAPTER I: INTRODUCTION^{1,2}

Every experience is a paradox in that it means to be absolute, and yet is relative; in that it somehow always goes beyond itself and yet never escapes.

- T. S. Eliot, *Knowledge and Experience in the Philosophy of F. H. Bradley* (1964, Chapter 7)

This chapter lays the foundation for this research which addresses a significant deficiency in the body of knowledge associated with the analysis of politics in enterprise transformations. The initial section describes the background and overview of the research and then focuses on the problem that motivated the study. Subsequent to these sections is an overview of the chapters describing how the research is organized to address questions and assumptions used in the research. The problem addressed in this research is complex and dynamic requiring a significantly broad study of literature across a number of disciplines. Accordingly, the framework designed and developed rapidly expands within each chapter. Thus, this chapter includes a section that describes the overarching limitations of the framework and clarifies what is and what is not incorporated in the framework. Of significance is the potential societal impact of the research stemming from the adaptive and evolving character of the framework which results from the application of rough set theory. I conclude with a summary of the chapter and highlight the implications of this research for leaders and managers of enterprises that are under transformation. A better understanding of the political behaviors which may emerge in enterprise transformations will help engineering managers reduce the impact of political behavior on critical design and production elements. More broadly speaking, the research, based in critical ideology and the dialectic, may facilitate better problem definition and solution development by embracing

¹ Style conforms to the *Publication Manual of the American Psychological Association* (APA), 5th edition (2001).

² The views presented in this research are those of the author and do not necessarily represent the policies of the United States Joint Forces Command, the U.S. Department of Defense or components, or NATO.

politics as part of the creative process, particularly in the case of enterprise transformation problems in which there may be no precedent for the challenge at hand.

BACKGROUND AND OVERVIEW OF RESEARCH

As the above quote from T.S. Eliot alludes, concepts are convenient classifications and categories of reality that are validated in experience and become integral parts of our personalities. Human conceptualization of concepts arise as a structured expression of a coherent internal world model limited by the “limits and structure of the brain, the body, and the world” (Gallese, 2003, p. 1231; Lakoff & Nunez, 2000, p. 1). Both Kant and Hegel recognized the limits of the conceptualization process, and the latter argued for the dialectic approach as a way to surpass these limits (Pinkard, 1988, pp. 13, 21-22). In this research, these limits are articulated in terms of theoretical perspectives. Theoretical perspectives shape the development and interpretation of concepts which affect which decisions are taken and in what priority, what counts as knowledge, and which policies are developed when and for what purpose, with an assumed theory of causation. In addition, theoretical perspectives affect social behaviors and the categories of language itself (Alford & Friedland, 1992, p. 388).

The inclusion of different theoretical dispositions in defining which enterprise transformation problems need to be solved and associated theses creates a rich environment for emergent political behaviors and possibilities. Developing an understanding of how different theoretical perspectives may interact within enterprise transformations provides critical insights into why each of the contending positions conceptualize concepts the way they do and the basis for the difference between alternative conceptions. Engineering managers sensitive to political behaviors will have increased awareness of what strategic alliances may emerge to shape systemic, situational, and structural aspects of the problem identified. For these engineering managers, politics becomes a part of the creative process in defining and solving enterprise transformation problems as opposed to being stigmatized as unproductive in transformation processes.

The questions answered by this research are 1) what theoretical framework can be developed for the analysis of politics in enterprise transformations? and 2) what can be

said about the validity of the framework? This research develops a theoretical framework for the analysis of politics in enterprise transformations using a dialectical analysis of concepts located in their theoretical perspective (Alford & Friedland, 1992; Allison & Zelikow, 1999; Mitroff & Linstone, 1993; Skinner, 1978a, 1978b). Qualitative metrics are used to validate the theoretical framework (Guba & Lincoln, 2005; Huberman & Miles, 2002; Leedy, 1997). The research is further validated by demonstrating its adherence to critical ideology. For the purpose of this research, an enterprise is broadly defined as an institutional undertaking involving risk (Oxford, 1989). A multi-national corporation, a university, a government organization (e.g., USJFCOM³), an international collective defense organization (e.g., NATO⁴), and a political administration are examples of enterprises under this definition.

Enterprise management paradigms have been dominated by functional and rational theories and positivist methodologies often leading to more efficient, productive, and interconnected enterprises (Benson, 1977, p. 1; Norton, 2009; Symon, 2008; Tetlock, 2000). Existing concepts become doctrine supported by processes, structures, patterns of communication, and language. According to Benson (1977), in time, “The distinction between divisions, departments, occupations, levels, recruitment and reward strategies, and so forth, through which participants arrange their activities have become scientific categories. Likewise, the participants’ explanations for the structure of the organization have been formalized as scientific theories” (p. 1). Consequently, enterprise transformations appear paradoxical as enterprises lack the critical posture necessary to discuss changes in concepts other than those that tend to affirm present realities in the enterprise (Benson, 1977, pp. 1-2; Fiol, 2002, p. 653). The introduction or modification of new concepts tends to fragment these institutionalized components, preventing any coordinated explanation of political behavior except within a dominant paradigm (Alford & Friedland, 1992; Donaldson, 1995; Pfeffer, 1993; Scott, 2003). Politics becomes stigmatized rather than embraced as part of the creative process of change. The framework developed in this research provides a theoretical foundation to open transformation efforts to the processes and language that form and demolish structures

³ United States Joint Forces Command

⁴ North Atlantic Treaty Organization

and patterns of communication within enterprises and expose the underlying theories behind political behavior.

Metaphysically, the type of paradox described above can be found as early as the fifth-century B.C. Heraclitus, with whom the western tradition of dialectics began, wrote about the limits of man's understanding and the necessity of the dialectic in the process of knowledge creation (Ollman & Smith, 2008, p. 2). The passages "Most men do not think things in the way they encounter them, nor do they recognize what they experience, but believe their own opinions" and "Although the account is shared, most men live as though their thinking were a private possession" reflect Heraclitus' views on the fallibility of man and the necessity of the dialectic in understanding "the account [that is] shared" (Heraclitus, 1979, pp. 39, 102). The word *account* is translated from Greek with an emphasis on the importance of language; *logos* is "common" for it expresses "a structure that characterizes all things" and reflects shared experience, but also "shared as a principle of agreement between diverse powers, of understanding between speaker and hearer, of public unity and joint action among the members of a political community" (Heraclitus, 1979, pp. 101-102). Hence, *logos* means "not simply language, but rational discussion, calculation, and choice: rationality as expressed in speech, in thought, and in action" (Heraclitus, 1979, p. 102).

What is clear from the previous discussions is that within an enterprise people use the same concepts, but what they mean to individuals and groups varies based upon their explicit and implicit theoretical perspectives. Hegel draws this distinction more sharply with his discussion about concepts and the idea of conception or *begriff*. A concept, according to Hegel, is a term that is non-explanatory whereas a conception "is explanatory and is expressed by a proposition; conceptions, however, express beliefs within a system of beliefs" (Pinkard, 1988, p. 13). In this research, the "system of belief" is articulated in terms of a theoretical perspective. When conceptualizations of concepts differ, the dialectic is used "to show that the apparent incompatibility is only apparent, that this contradiction is avoided once one expands one's framework of discourse in the appropriate way" (Pinkard, 1988, p. 19).

Theoretical perspectives are shaped not only by interactions within the enterprise but by interactions within social, political, military, family, education, and economic

institutions. When concepts interpreted within different theoretical perspectives collide, they can produce cooperation, frustration, or paradigmatic hegemony. In enterprise transformations, modified or new concepts are introduced amplifying these interpretive challenges that manifest in political behavior. To better understand how one might analyze politics, each concept is considered in its theoretical perspective. The main element in this research is a concept. Characteristic elements determine how concepts are perceived differently (or conceptualized) within various theoretical perspectives. The characteristic elements are the twelve dimensions within systemic, situational, and structural contexts that are rigorously derived from the analysis of the literature and articulated in Appendix C: Theoretical Framework Construction. Table 1 depicts the main and characteristics elements used in the research.

Table 1 Main and Characteristics Elements in the Research

Type of Element	Description	Dimensions
Main	Concept	Not Applicable
Characteristic	Systemic Context	World View
		Values
		Interest
		Historic Narrative
Characteristic	Situational Context	Trust
		Fear
		Participation
		Legitimacy
Characteristic	Structural Context	Boundaries
		Dominance
		Communication
		Geography

Dimensions across systemic, situational, and structural contexts emphasize a particular level of analysis at which power operates to support political analysis and

provide a typology of power to structure the research (Alford & Friedland, 1992, pp. 7-10). This construction allows a holistic characterization of theoretical perspectives. The dimensions *world view*, *values*, *interests*, and *historic narratives* are concerned with a societal level of analysis and are associated with systemic power. *Trust*, *fear*, *participation*, and *legitimacy* are dimensions concerned with analysis at the level of the individual and are associated with situational power. Finally, *boundaries*, *dominance*, *communications*, and *geography* are dimensions concerned with organizational analysis and are associated with structural power (Alford & Friedland, 1992, pp. 6, 161-164). As mentioned before, these dimensions are rigorously derived from a broad set of seminal works and peer-reviewed studies and analysis. Critical ideology guides the choice of literature examined and the literature is reduced in accordance with qualitative research methods such as Leedy (1997), Huberman and Miles (2002), Creswell (1994), Brookfield (2005), and Gall, Borg, and Gall (1996). Within this framework, I define *politics* as activity that uses strategic alliances to create the possibility of action to reinforce or change systemic, situational, or structural arrangements (Alford & Friedland, 1992, p. 409).

To construct the framework I focus on four theoretical perspectives in this research: autocratic, bureaucratic, pluralistic, and cognitive. Concepts are derived from an extensive literature review and included only if they met specified critical-ideology criteria, ensuring they are well described in each theoretical perspective. The critical-ideology criteria are described in Chapter IV. The concepts taken together across these theoretical perspectives compose a paradigmatic model that forms the basis of the framework. The paradigmatic model and theory comprise the theoretical framework that answers the first research question. Qualitative metrics are used to validate the framework and answer the second research question. In addition, the research is validated through its adherence to critical ideology by meeting the critical-ideology criteria developed in this research. Based on the validation perspectives generated, I conclude that while the research objectives are attained, the ambiguity found in descriptions of the theoretical perspectives must be addressed in order to develop practical applications. I propose a novel solution using rough set theory which, with further research, could allow the theoretical framework to be employed to support

transformation audits and strategy development as well as open debates to new possibilities related to enterprise transformations.

For the purpose of this research, *enterprise transformation* is defined as a process that seeks to change the status quo of an existing enterprise (Oxford, 1989).⁵ However, this change is more significant than routine change – it is a fundamental change that substantially alters the relationships between the enterprise and one or more key constituencies, e.g., customers, employees, mission partners, suppliers, and investors (Rouse, 2006b, p. 279).⁶ Among the stimuli that are commonly responsible for motivating the enterprise to transform is an organization’s desire for technological innovation, gains in efficiency, dominance in existing or new markets, competitive or strategic advantage, as well as response to an adversary or competitor. The stimuli for the transformation and the enterprise that must internalize the stimuli are essential components of the enterprise transformation process.

As mentioned before, an enterprise is an institutional undertaking involving risk (Oxford, 1989). Risk is an important concept to consider as what is perceived to be at risk is shaped by one’s theoretical perspective. Hassenzahl (2008) writes:

Engineers and actuaries define risk in computational terms, typically as the combined probability and consequence of some event. Anthropologist Mary Douglas countered that to most people risk is more closely related to the idea of sin (1990, pp. 1-16). To be put at risk, she argues, is a modern equivalent of being sinned against. Yet another perspective comes from sociologist Anthony Giddens, who equates risk with the absence of trust (1990). We feel at risk when those institutions we trusted to keep us safe fail to do so – or even if we stop believing that they will do so. (p. 12)

In the above passage, engineers and actuaries define risk in the type of rational and unemotional terms found in bureaucratic perspectives. Douglas’ (1990) concern with the abstract and emotional idea of “sin” reflects a cognitive perspective, while Giddens’ (1990) definition reflects values found within the pluralist perspective. The characteristics of the theoretical perspectives used in this research are more fully

⁵ This definition is comprised of definitions of “enterprise” and “transformation” in referenced source.

⁶ In this reference, Rouse describes transformation in terms of “new value propositions in terms of products and services, how these offerings are delivered and supported, and/or how the enterprise is organized to provide these offerings. Transformation can also involve old value propositions provided in fundamentally new ways” (Rouse, 2006b, p. 279). This definition was found to be too limiting for the inclusion of politics in the framework.

described in Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. The point to make here is that interpretations of concepts such as risk vary due to different theoretical perspectives. These interpretive differences manifest in political behavior and can have a significant impact on how groups and individuals will try to shape systemic, situational, and structural arrangements. In an example that will be described more fully in Chapter II, Mitroff and Linstone (1993) analyzed how different theoretical perspectives of risk contributed to the 1984 Union Carbide disaster in Bhopal, India (pp. 111-135). The theoretical framework developed in this research provides critical foundational work that may help prevent such disasters from occurring.

PURPOSE AND SIGNIFICANCE OF THIS STUDY

The purpose of this research is to develop and validate a framework for the analysis of politics in enterprise transformation. Qualitative methods, derived from qualitative research sources that include Leedy (1997), Huberman and Miles (2002), Guba and Lincoln (2005), and Gall, Borg, and Gall (1996) are used to validate the framework. Critical-ideology criteria are developed based on the work of Alford and Friedland (1992), Klein (2004), Brookfield (2005), Habermas (1984), and Foucault (1980). Adherence to these criteria further validates the framework. The main research questions addressed in this research are:

- What framework can be developed for the analysis of politics in enterprise transformation?
- How valid is the framework?

The theoretical framework accounts for the shifting states found within enterprise transformations through its construction across systemic, situational, and structural contexts. Throughout the construction, both the theory and logic are thoroughly documented to increase the validity of the framework. Figure 1 below provides an overview of the design for the research project.

research contributes to filling a deficiency in the body of knowledge associated with the analysis of politics in enterprise transformations.

Due to the theoretical nature of this work, the audience for this research is the academic community. The interests of the audience served by this research include an exploration of:

- enterprise transformation problems that involve a wide variety of perspectives and goals among stakeholders of varying strength
- the categorization of perspectives across a wide body of literature
- the imprecision of concepts related to enterprise transformations
- domains of analysis that cut across systemic, situational, and structural contexts found in enterprise transformations.

A theoretical framework that incorporates the interests of this target audience is not well addressed within the literature. This research provides the audience with a clearly articulated theoretical framework that is validated to support further research in these areas. The theoretical framework is made dynamic through the use of rough set theory. Hence, the target audience may incorporate existing analysis, empirical data, or new data from the literature into the framework for further study or the development of practical applications.

As further described in Chapter II, the literature review revealed several gaps which this research addresses. This research provides the following significant contributions to the field of engineering management:

- The research develops and validates a holistic framework for the analysis of politics in enterprise transformations, addressing a significant gap in the body of knowledge.
- The research identifies and expands critical management approaches in engineering management. This research uses critical ideology which has its roots in critical theory. This issue and associated research contribution are discussed more completely in Chapter III.
- The research contributes a comprehensive survey on concepts relevant to the analysis of politics in enterprise transformations that meet the critical-ideology criteria; no such survey existed.

- The research contributes to the body of knowledge associated with the analysis of politics by proposing a rigorous representation of theoretical perspectives to be used in political analysis.
- Conclusions from validation perspectives results in a novel contribution to the field with the use of rough set theory to address ambiguity in the data, strengthening the validation of the theoretical framework.
- Through enhancements using rough set theory, the theoretical framework can be continuously adjusted with new data. This adaptive characteristic increases the plausibility of the framework, strengthening the validation. An adaptive, evolving theoretical framework is a novel contribution to the body of knowledge concerned with the analysis of politics in enterprise transformations and engineering management.

Politics, power, and influence are largely about the fabric of interactions at multiple levels in the enterprise (Handy, 1993, p. 123). Hence, a framework for the analysis of politics must account for different, though often conflicting, theoretical perspectives across the enterprise. Since politics is fundamentally about human behavior and the systemic, structural, and situational contexts within which humans live, the theoretical framework that is developed is named the Enterprise Political Framework (EPF).

The EPF is not based on a meta-theory that privileges its view over other perspectives. Nor is it a predictive tool as politics is inherently complex, unpredictable, and non-deterministic. The EPF is a theoretical framework that facilitates the dialectic analysis of concepts as located within the context of the perspective in which they are used to explain phenomena as they abstract from reality in order to connect the historical and theoretical use of concepts to political behavior and political practice (Alford & Friedland, 1992, p. 2). Theories have power over enterprise actions, behaviors, and categories of language; left unexamined, underlying theories provide a significant source of frustration and uncooperative behavior. Ideologies are inherently non-reflexive about their own agendas adding strength to the need for the deliberate employment of a framework that supports the dialectical process. Through a better understanding of politics and the use of the dialectical process, engineering managers will be able to better

determine the enterprise transformation problem that needs to be addressed as well as points of cooperation, frustration, and paradigmatic hegemony that might affect systemic, situational, and structural aspects of a given solution.

PROBLEM MOTIVATING THE STUDY

The problem motivating this study is triangulated from different views presented in this section. First, the lack of a holistic approach for the analysis of politics is discussed. Second, the complexity of enterprise transformation problems necessitates an approach that considers systemic, situational, and structural contexts. Third, the power of theories over actions, behaviors, and language motivates the theoretical, not practical, nature of the research. Fourth, economic and security trends in an increasingly interconnected, interdependent, and volatile world motivated the choice of autocratic, bureaucratic, and pluralistic theoretical perspectives that are used in this research. Finally, advances in neuroscience over the last twenty-five years are teaching us more about the chemical, biological, and emotional sources of political behavior, motivating the inclusion of the cognitive perspective in the study.

The lack of a holistic approach to analyze politics in enterprise transformation problems became clear from both my experience in enterprise transformation problems and my review of the literature which is detailed in Chapter II. Enterprise transformation approaches designed for increased efficiency, agility, production, span, innovation, or power often use scientific approaches based in bureaucratic perspectives. An underlying assumption in these approaches is the belief there is an objective way of developing an accurate model of the system in question. The model is often assumed to be a close approximation of reality; hence, strong weight is given to the results of the analysis. The underlying science may be based in economics, mathematics, psychology, or sociology (Churchman, 1968). Six-Sigma, Balanced Scorecard, benchmarking, knowledge management, total quality management, process re-engineering, and many more management approaches use scientific approaches to improve the management of organizations. There is a plethora of scholarly work, popular books, and articles on these approaches to organizational management. While this body of knowledge is valuable due to its contribution to the many different frameworks, methods, and tools for improved

understanding and management of organizations, the frameworks are in general not sufficiently holistic to support the analysis of politics in enterprise transformations.

Politics occurs at multiple levels within the enterprise making it difficult to identify the underlying problems that need to be addressed. As an enterprise transformation process proceeds, politics shape which problems are to be solved as well as when and in what priority problems are solved. Even without the added emotional content of fear, politics emerging from conflicting or misunderstood assumptions, values, and interests can have an adverse effect on clear problem definition. As Mitroff suggests, “all serious errors of management can be traced to one fundamental flaw: solving the wrong problem precisely, or muddled thinking” (Mitroff, 1999, p. 9). Hence, the analysis of politics in enterprise transformations must take into account these complexities through an examination of systemic, situational, and structural contexts.

This research’s emphasis on theoretical perspectives is due to their powerful influence across systemic, situational, and structural contexts found in enterprise transformation problems. Theories have significant explanatory power beyond an analysis of facts and empirical evidence. Argyris and Schön (1996) use a concept of “theories-in-use” that acknowledges the power of theories in shaping patterns of behavior but qualified the discovery of such theories through empirical evidence (p. 13). Alford and Friedland (1992) describe the power of theories of state which has clear application to the power of theories in enterprises:

First, the [theories of state] can be used to interpret the causes and potential consequences of political, legislative, or administrative acts. Theory influences the interpretation of state actions. Second, theories shape the consciousness of social groups, telling them what actions are likely to be treated by the state as legitimate or illegal. A hypothesis about whether the police are likely to arrest someone for sitting-in at the mayor’s office is a theory of probable state action. This is the domination of theory over behavior. Third, latent assumptions that certain behaviors are public while others are private rest upon an implicit theory about the boundaries between the state and society. This is the hegemony of theory over the categories of language itself. Although we do not believe that the aspects of the state can be explained adequately by any single theoretical perspective, we nonetheless think that each perspective has power in all the above three senses. (p. 388)

Within enterprises, strategies and policies are developed based on the interpretation of political, legislative, and administrative acts. Theories shape what policies are developed, when, and for what purpose, with an assumed theory of causation. Agents within and external to the enterprise use explicit and implicit theories that have logical elaborations as they plan concrete actions in hopes of gaining legitimate power and influence. Bureaucratic theories cater to elites, pluralistic theories emphasize strategies that reach a larger audience, and autocratic theories seek the use of historic relationships, while cognitive theories may motivate innovative ways of looking at opportunities. Within the enterprise, boundaries between one's social and career experiences blurs as unexpressed factors for promotion and privilege (e.g., spouse behavior, golf ability, family connections, and attractiveness) become embedded in the enterprise culture. The power of theories highlights the value of a theoretical framework for understanding political behavior in enterprises. Political behavior in enterprises cannot be explained by one perspective alone; each perspective brings its own power in the above three senses.

From an economic point of view, this theoretical study is in part motivated by the understanding that the existing scholarly literature that forms the basis for the practical analysis of politics in enterprises is experiencing critical examination in response to the effects of globalization. Following World War II, the United States could tolerate a high degree of friction between stockholders, labor, government, and management, as well as large, often inefficient bureaucracies and production lines due to unsaturated domestic markets and a system with significant slack and buffering (Mitroff & Linstone, 1993, p. 13). As markets became saturated and the slack and buffering built into a post-World War II economy declined, our strategic alliances have been with countries that produce quality goods within enterprises that stand in stark contrast to our bureaucratic frictions and waste (Mitroff & Linstone, 1993, p. 13). The alliances which these countries have between shareholders, governments, managers, and employees are not perfect. An autocratic China has become one of the largest producers of hardware and manufactured goods in the world but is plagued by environmental and human rights challenges. A pluralistic India is a dominant force in the software market and must manage this growth against a backdrop of overpopulation, a class system, and the uncertainty that arises from

its unstable nuclear neighbor Pakistan. The 2008 global financial and security market crisis has shown how connected the world economy has become – the economic problems of developed nations are our problems. Global enterprises must consider the economies of states, non-government organizations, companies, and industries as they forge strategic alliances to remain competitive in the world market. According to Mitroff and Linstone (1993), “The result is no less than a worldwide competition or large-scale social experiment between companies, industries and entire governments regarding the design principles that are appropriate for conducting business in the next century” (pp. 3-4). It is an inherently political situation where all three levels of power – systemic, situational, and structural – are being reshaped to define the nature of competition in the near future.

Similar motivations for this theoretical study are derived from a practical examination of enterprise transformations from a security point of view. NATO is a particularly rich example of a security (and defense) enterprise under transformation. The 1949 Washington Treaty (The North Atlantic Treaty) resolved the purpose of NATO with an implicit emphasis on the Soviet threat. Today, NATO is an enterprise composed of twenty-eight nations that must develop a more effective political and security framework to enable it to act decisively and rapidly in an increasingly uncertain world where threats can range from subversive cyber activity and natural disasters to weapons of mass destruction. In an interconnected world, threats can originate from a number of sources: nature, super-empowered individuals, extremist non-state actors, organized crime, rogue states, and confrontational powers. A theoretical framework with rigorous validation criteria applied may, with further research beyond the scope of this dissertation, provide insights on how collective security may be interpreted by individuals or groups that hold a particular theoretical perspective in response to various threat scenarios. Such practical applications may help strategic leaders, advisors, communicators, and risk managers develop political strategies that create the trust and personal relationships necessary to develop more effective security frameworks for collective action.

The links between broader societal issues and human cognition is becoming clearer with advances in neuroscience and cognitive science, motivating the inclusion of

a cognitive theoretical perspective in the framework. Stephen Rosen (2005), in his book *War and Human Nature* uses “the current scientific understanding of human nature, along with an understanding of social institutions, to explain human cognition as it is relevant to the issues of war and peace” (p. 3). I borrow from his definition of “cognition” in order to develop a more general definition, in which cognition is the way that information is selected, stored, recalled, and used, consciously or unconsciously, for political behavior⁷ (Rosen, 2005, p. 3). Hence, in the cognitive perspective, the interpretations of concepts are shaped by a theoretical perspective that is informed by scientific advances in neuroscience and cognitive science.

To illustrate the cognitive perspective further, in 2002 a cognitive scientist named Daniel Kahneman won the Nobel Prize in economics by explaining how economics could benefit from discoveries in cognitive science. He uses these discoveries to demonstrate the limitations of the rational actor model. He distinguishes reflexive thought – “unconscious, fast, parallel, automatic, effortless, and associative” – from reflective thought which is “slow, serial, controlled, effortful, and commonly rule-governed” (Lakoff, 2008, p. 224). In the cognitive perspective, the interpretation of concepts tends to favor a more reflexive description instead of the rule-based descriptions found in bureaucratic perspectives.

For this research, I use Rosen’s definition of human nature: “Human nature will refer to the aspects of human cognition that are affected by biological inheritance, as those inherited factors are shaped by human interaction with the environment” (2005, p. 3). The characteristics of cognition used in this research connect the idea of cognition with the environment and time and is found in Margaret Wilson’s work on cognition (2002, pp. 625-626):

1. Cognition is situated
2. Cognition is time pressured
3. Cognitive work is offloaded onto the environment

⁷ Rosen writes, “cognition will mean the way in which information is selected, stored, recalled and used, consciously or unconsciously, for decision making” (Rosen, 2005, p. 3). For the purposes of this dissertation, political behavior occurs in the process of decision making, but also in pre-decision making acts such as creating strategic alliances to affect systemic, situational, and structural contexts.

4. The environment is part of the cognitive system
5. Cognition is designed for action
6. Offline cognition is body based

What is left is to connect the insights into the effect of biology on individual human behavior to political behavior found in enterprises. Rosen (2005) argues that different institutions or social settings “may preferentially select people with particular cognitive profiles for positions of responsibility and then situate them in social environments that reinforce the decision-making tendencies that they have as individuals” (p. 6). Rosen (2005) devotes a chapter of his book to support this claim with empirical evidence that is summarized here:

...turbulent political environments full of near-term dangers make it easier for people with near-term horizons to rise to political power, and for them to gain tyrannical power. Once in a position of absolute power, such individuals will exist in a social environment in which their individual cognitive profiles will be of considerable political importance, and their individual predisposition to act in ways affected by near-term calculations will be reinforced by the social setting in which they exist. A different political system will select and empower a different kind of person. The institutions associated with oligarchic politics may select for people sensitive to social status and put those people together in an environment that tends to focus and magnify their status challenges to each other, reinforcing their predisposition to engage in challenge-response types of status politics. In other group settings, the stress-induced depression experienced by one individual will create behavior that others can observe, and which can trigger fear and depression in all of them. On the other hand, one can also specify social institutions that will tend to dampen or neutralize the effects of the individual cognitive predispositions before they are translated into group behavior. Checks and balances are meant, among other things, to prevent individual tendencies to “act in the heat of the moment” from becoming actual. So the variations in human nature relevant to cognition will be important only when social conditions reinforce them. (p. 6)

The theory of bureaucracies was designed in large part to provide unemotional checks and balances to reduce the impact of cognitive predispositions (Weber, 1978b). However, my research suggests that there is an inherent cognitive predisposition in a bureaucratic theoretical perspective. In any case, the point is to describe advances in neuroscience that motivate the inclusion of a cognitive perspective in the theoretical framework – a novel contribution to the field of engineering management.

In summary, the problem motivating this study is that there is no holistic theoretical framework with rigorously applied validation criteria for the analysis of politics across the systemic, situational, and structural contexts found in enterprise transformations.

OVERVIEW OF CHAPTERS

This section provides an overview of the chapters in which the research is presented. Chapter I provides a foundation for the research that addresses a significant deficiency in the body of knowledge surrounding the analysis of politics in enterprise transformations. Chapter II provides a synthesis and assessment of the literature on politics, power, influence, and enterprises under transformation from sociology, political science, international relations, mathematics, complexity, and organizational theory.

Chapter III describes the research approach used in this paper. Critical research approaches are sensitive to particular social contexts such as commodity exchange dominance over social relations, freedom of oppression through understanding and access to knowledge, fairness, alienation, and democracy; social contexts are powerful motivators to be considered (Brookfield, 2005, pp. 23-29). In other words, a critical approach to the study of politics, power, and influence can be characterized by a critical reflection of the human condition across systemic, situational, and structural contexts (B. L. Murphy, 2001, pp. 65-66, 78-69). The organization and design of interactions and power structures to transform the enterprise is continuously evaluated by a process of critical reflection of the social context created or affected by the instrumentation. Chapter III describes the foundations of critical ideology which are rooted in critical theory.

In addition, Chapter III addresses the primary difficulties inherent in complex systems. Enterprise transformations are characterized by shifting states of existing and emergent behaviors that can be cooperative, non-cooperative, or result in a stasis between irreconcilable differences – behaviors that are found in complex phenomena. For any framework for the analysis of politics in enterprise transformation to be useful, it must address these shifting states.

Chapter III also addresses the challenge of multi-level analysis. The multiple levels of analysis possible in enterprises under transformation require the researcher to pay particular attention to potential fallacies in analysis (Rousseau, 1985, pp. 1-37). Furthermore, Chapter III addresses the hierarchical and emergent structures in enterprise transformation problems. The structural context in the theoretical framework captures how different elements in and associated with the enterprise are related and the supporting framework(s) for processes. For example, bureaucratic perspectives such as those found in cybernetics use hierarchical structures to adapt, regulate, control, and coerce the enterprise at different levels (R. L. Flood & Carson, 1993, pp. 81-86). The systemic and situational dimensions of the theoretical framework examine possible conflicts between theoretical perspectives and provide insights into potential emergent phenomena. Emergence is a characterization of phenomena that occurs when elements and groups of elements come together to “form wholes whose properties are different from the parts” (R. L. Flood & Carson, 1993, p. 18).

The research design is described and illustrated in Chapter IV. This chapter describes what data was collected for what purpose as well as the design for the validation of the framework. The theory of rough sets is introduced through an example on a subset of the matrix data on concepts and theoretical perspectives. A more fundamental introduction to rough set theory is provided in Appendix A: Introduction to Rough Set Theory. As part of the validation criteria, the research purpose and design is reviewed by experts who are involved in the scholarly study of politics – the description of the review process and results are contained in Appendix B: Peer Review Procedures.

Chapter V answers the questions posed in this research. First, I describe the concepts derived from the literature that meet the critical-ideology criteria and are applicable to enterprise transformation problems. Next, I present a theoretical framework for the analysis of politics in enterprise transformation. The construction of the theoretical framework is documented in Appendix C: Theoretical Framework Construction, Appendix D: Coding the Clarifying Concepts, and Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. These appendixes carefully trace the construction of the theoretical framework from the literature through the development of 1) criteria for distinguishing between theoretical perspectives within the twelve

dimensions, 2) the development of a simplified coding system that is used in concert with rough set theory in Chapter VII, and 3) literature-derived descriptions of autocratic, bureaucratic, pluralistic, and cognitive perspectives. The theoretical framework represents a “vocabulary” for a given concept across the four theoretical perspectives. It can be employed to derive insights into how each theoretical perspective defines particular concepts in support of the dialectical process or be used in support of the analysis of what politics might emerge to shape systemic, situational, and structural arrangements. Note that the development of a practical application of the framework is beyond the scope of this research. However, in Appendix F: Implications for Engineering Managers, some guidelines for practitioners are provided as a means to satisfy a pragmatic audience for the research.

In addition to answering the first question posed by this research – what framework can be developed for the analysis of politics in enterprise transformations? – Chapter V also answers the second question: how valid is the theoretical framework? The theoretical framework is validated by rigorous qualitative validation criteria, theoretical coherence with critical ideology, and expert opinion. Through both the documentation in Appendix C: Theoretical Framework Construction, Appendix D: Coding the Clarifying Concepts, and Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives, and synthesis and critique of the literature review, I provide a clear chain of evidence for the replication and control necessary for other researchers under similar conditions to duplicate the research (Leedy, 1997, p. 98). The interpretive validity is strengthened with researcher positioning in terms of my personal experience with enterprise transformations.

Chapter VI breaks from the rigorous construction, presentation, and validation of the framework to discuss the implications of the research. This high-level discussion draws out the implications of the research and tapers the impact, implications, and meaning down. I discuss societal and philosophical implications of the research and describe a thought experiment to illustrate these implications. The thought experiment is set in the future and serves as an example for the reader to gain clarity on the impact and implications of the research.

The research draws to a close in Chapter VII where, as a result of the validation process, I conclude that in order for practical applications to be developed, the ambiguity of language found within descriptions of the theoretical perspectives needs to be addressed. Because of the paradoxical nature of politics where different perceptions of reality can exist simultaneously, the data describing theoretical perspectives was found to be imprecise - an autocratic perspective could be attributed to a modern leader in the United States as well as a leader in the sixth century in China, who controlled not only the work environment but the social environment of the people. I propose a novel solution to this problem using the tools of rough set theory. This novel contribution to the field strengthens the validation through the articulation of valid and possible rules derived from the data collected in the research. While typical frameworks are static, the incorporation of this solution creates a framework that evolves. This development has significant implications for how enterprise transformations may be managed in the future. Given further development for practical applications, the theoretical framework might allow current and future researchers and practitioners to incorporate their analysis and findings. The continuous evolution of the framework to incorporate systemic, situational, and structural data will strengthen the validation of the framework and increase the possibilities for practical applications. The chapter ends with a description of contributions to the field, limitations of the research, and recommended areas of further research.

ASSUMPTIONS USED IN THE RESEARCH

I defined politics as activity that uses strategic alliances to create the possibility of action to reinforce or change systemic, situational, or structural arrangements (Alford & Friedland, 1992, p. 409). In an examination of the enterprise as a system, Assumptions 1 and 2 describe two critical points regarding a holistic approach to this study.

Assumption 1: “Problems cannot be isolated from the system that is producing the problematic behavior” (Keating, 2001, p. 773).

Assumption 2: “The problem system cannot be understood independently from the context within which it is embedded” (Keating, 2001, p. 773).

Defining the boundaries and span of the enterprise that is to be transformed is itself a political process. Membership in groups or communities defines privileges, social and economic rights, access, information flow, knowledge and, of course, influence and power. An acknowledgement of the limitations of our understanding reflected in Assumptions 3 and 4 is a critical consideration in describing the domain of analysis in systemic, situational, and structural contexts.

Assumption 3: “Our perception of reality can only improve if we understand the limitations of our understanding, and particularly, where we incur the penalties in trying to achieve perfect understanding” (Sousa-Poza & Correa-Martinez, 2005, p. 2745).

Assumption 4: “Our capability to design and manage complex situations is improved if we understand and accept the limitations of our understanding so that we can accommodate for this” (Sousa-Poza & Correa-Martinez, 2005, p. 2745).

Philosophically, induction assumes objective knowledge which is rooted in the belief that the human mind can know reality and knowledge advances through inquiry, observation, and test (Locke, 2007, pp. 868-880). The continual process of inquiry brings the human mind closer to reality; however, it is not assumed that it is possible to fully understand reality. “Reality” is a construct that exists separate from and within the observer but this does not imply, as with Kant and his noumenal world, that reality has a form separate from human existence (Sousa-Poza & Correa-Martinez, 2005, p. 2744). This philosophical underpinning of the inductive approach is reflected in Assumption 5.

Assumption 5: “A reality exists as a construct, which is both separate and part of the observer, and is beyond the observer’s full understanding” (Sousa-Poza & Correa-Martinez, 2005, p. 2747).

In induction, the possibility of discovering causal inferences is assumed (Locke, 2007, p. 882). For enterprise transformation problems, abstractions of reality may be necessary to determine the domain of analysis and examine a specific problem, but science proceeds through theory building, hypothesis, testing, and adjusting theories as required. Valid concepts derived either through theory-building or from established research are necessary for advanced casual generalizations (Locke, 2007, p. 882). For example, the concept of gravity was unknown to Galileo and despite his many

achievements his research led him to errors; "...causal generalizations are based on inductions starting at the perceptual level" (Locke, 2007, p. 882). Axioms 6 and 7 are important to the epistemological and ontological considerations as criteria is developed over systemic, situational, and structural contexts and will be discussed more thoroughly in Chapter III.

Assumption 6: "Knowledge and knowledge development requires the bounding of reality to extract a bounded domain.

- This generates an incompleteness of knowledge of reality.
- The nature of the bounding affects the degree to which the domain approximates reality.
- The domain exists irrespective of an observer's acceptance, knowledge, or acknowledgement of an ulterior reality" (Sousa-Poza & Correa-Martinez, 2005, p. 2747).

Assumption 7: "The domain bounds all that is knowable not necessarily known. Our perception is bounded for the same reason that reality is bounded" (Sousa-Poza & Correa-Martinez, 2005, p. 2747).

The following assumption states that intentional political behavior is motivated by reducing uncertainty from the view of the agent who employs power and influence. Systemic power which arises from institutional frustration is not addressed in this assumption.

Assumption 8: Political behavior evolves in such a way as to minimize uncertainty in the view of the agent who employs power and influence (Wimsatt, 2007, pp. 209-213).

8 (a): The agent produces political behavior that is intentionally unpredictable to competitors or adversaries (Wimsatt, 2007, p. 212).

8 (b): The political behavior of the agent aims to render as predictable as possible required resources to reduce uncertainty in systemic, situational, and structural arrangements (Wimsatt, 2007, p. 212).

These eight assumptions, together with the research perspective described in Chapter III, provide the philosophical foundations behind the research approach.

RESEARCH LIMITATIONS

The framework that is developed and presented in the following chapters expands rapidly into a twelve-dimensional framework over three contexts. Each concept that meets the critical-ideology criteria is explored within four different perspectives over the twelve-dimensional framework. As the twelve dimensions are derived from the literature review, it is important to note what literature is and is not included as well as contested areas in the literature that are considered. In the literature review in Chapter II, I note which contested areas are considered and discuss which literature is not included and why. The particular focus on politics and enterprise transformations demands a broad set of literature examined; the literature is narrowed by the choice of research questions and associated five focus areas. Critical ideology and qualitative research methods guide the choice of literature and the literature reduction. There are also guiding assumptions used in this research which were described in the previous paragraphs. In the research design, I explain the choice of literature that determined the twelve dimensions. The research is further guided by the assumption of four theoretical perspectives, the typology of power (systemic, situational, and structural), and critical ideology; a loosening of any of these design constraints might result in a different number or different choices of dimensions. However, the design constraints in this research are specific to the assumptions outlined in this chapter and research perspective which is grounded in the theory of dynamical frustration and critical ideology. Dynamical frustration reflects the nature of the problem considered. Politics and enterprise transformations are highly complex and dynamic and emergent behaviors often defy quantitative or linear analysis or measures. This work is significant in that it demonstrates how qualitative data that is politically and historically sensitive may be incorporated into a framework from which valid and possible rules for the theoretical perspectives at play may be derived. These rules may help engineering managers identify areas where politics may emerge and possibly prevent disasters stemming from political behaviors in critical engineering design components.

CHAPTER SUMMARY

This chapter provided an overview of the research project and goals. The purpose of this research is to develop and validate a theoretical framework (the EPF) for the

analysis of politics in enterprise transformation. The research uses a dialectic analysis of concepts that are located within their theoretical perspectives. The research is set against the systemic, situational, and structural contexts of enterprises undergoing fundamental change. The broad context allows for a robust analysis of politics in relation to autocratic, pluralist, bureaucratic, and cognitive perspectives. It is the shifting states of alliances motivated by conflict between theoretical perspectives that underlie much of the politics that occur in enterprise transformations.

The problem motivating this study is the lack of a theoretical framework with rigorously applied validation criteria for the analysis of politics over systemic, situational, and structural contexts found in enterprise transformations. This problem is a significant gap in the body of knowledge associated with the analysis of politics in enterprise transformations. In addition to addressing this gap, this chapter described the significant contributions this research makes to the field of engineering management.

As previously described, the concepts and theoretical perspective together compose the paradigmatic model used in the research. A paradigmatic model is particularly useful in enterprise transformation problems due to the fragmentation caused by the modification or introduction of new concepts. As discussed in this chapter, the fragmentation of enterprises in transformation tends to prevent any coordinated explanation of political behavior except within a dominant paradigm (Alford & Friedland, 1992; Donaldson, 1995; Pfeffer, 1993; Scott, 2003). Political behavior cannot be adequately explained by one theoretical perspective; each perspective brings its own power over shaping patterns of behavior. The paradigmatic model, together with the theory developed from the literature, comprise the theoretical framework. For researchers, the proposed adaptive theoretical framework allows the incorporation of a wide array of data to further evolve and validate the framework.

The implications of the research discussed in this chapter are summarized below and will be discussed further in Appendix F: Implications for Engineering Managers.

- The theoretical framework allows the researcher to understand his or her own theoretical perspective and examine the terrain of possible theoretical perspectives for opportunities to develop strategic alliances and potential areas where cooperation, frustration, or paradigmatic hegemony may emerge.

- The insights gained through an understanding of how different theoretical perspectives may interact enable a rich dialectic process through which enterprise transformation problems and associated theses are developed, increasing awareness of where politics may emerge.
- The theoretical framework provides a theoretical foundation to open transformation efforts to the processes and language that form and demolish structures and patterns of communication within enterprises and expose the underlying theories behind political behavior.
- The theoretical framework provides foundational work that may prevent disasters such as the 1984 Union Carbide disaster from happening.
- With further research the theoretical framework could be employed to support transformation audits, strategy development, and political strategies as well as open debates to new possibilities for transformation.

The primary difficulty in the study stems from the complex and uncertain nature of both politics and enterprise transformations. The research perspective described in Chapter III addresses this difficulty.

CHAPTER II: LITERATURE REVIEW

That some people have more power than others is one of the most palpable facts of human existence. Because of this, the concept of power is as ancient and ubiquitous as any that social theory can boast. If these assertions needed any documentation, one could set up an endless parade of great names from Plato and Aristotle through Machiavelli and Hobbes to Pareto and Weber to demonstrate that a large number of seminal social theorists have devoted a good deal of attention to power and the phenomena associated with it. Doubtless it would be easy to show, too, how the word and its synonyms are everywhere embedded in the language of civilized peoples, often in subtly different ways: power influence, control, pouvoir, puissance, Macht, Herrschaft, Gewalt, imperium, potestas, auctoritas, potential, etc.

Robert A. Dahl, *The Concept of Power*, 1957

CHAPTER OVERVIEW

Dahl's quote is humbling for researchers who pursue problems that have power as a central theme. Recall that for the purposes of this research, *politics* is activity that uses strategic alliances to create the possibility of action to reinforce or change systemic, situational, or structural arrangements (Alford & Friedland, 1992, p. 409). Hence the concept of politics has a dominant theme of power. *Intentional power* is the capacity of individuals, groups, or systems to modify the choices that individuals and groups make (Dahl, 1957, pp. 202-203) while *unintentional power* occurs in systemic situations that have no identifiable agent and manifest in the ways individuals and groups are constructed (Foucault, 1980, pp. 97-98). The "ancient and ubiquitous" literature on power provides a fascinating study of how ideologies and concepts shape political behavior. This chapter lays the foundation of research and analysis behind the EPF. It frames the research within the literature and describes how the research relates to literature on politics, power, influence, and enterprise transformations. The literature is drawn from the fields of sociology, political science, international relations, mathematics, complexity, and organizational theory. While material in neuroscience, cognitive science, psychology, philosophy, organizational change, and systems theory is included

in the literature review, the material is incorporated as sub-categories. In addition, the literature review examines five focus areas required for the purpose of the research. Three of the five are addressed in this chapter. The remaining two are used in the construction and validation of the theoretical framework in Appendix C: Theoretical Framework Construction, Appendix D: Coding the Clarifying Concepts, and Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. This chapter ends with a critique identifying gaps in the literature as well as a statement of need for additional research related to the primary questions. The result of this chapter is a synthesized and critiqued literature review that forms the foundation of scholarly literature (both theoretical and factual) used for the construction of the framework. This review is clearly documented with each logical step explained to ensure traceability and repeatability and these steps contribute to the validation of the framework (Leedy, 1997).

Enterprises are to a large degree political in nature and hence analysis and insights from political science and international relations are often directly applicable to this study and other times analogous. For example, the in-group-out-group dichotomy is sharper in political structures whereas in enterprises (that are not wholly political in nature), members often belong to a variety of groups; a member of a political group cannot belong to both Republican and Democratic parties (Katz & Kahn, 1966, p. 139). Yet the actions of an antisocial nature towards out-groups is strikingly similar (Katz & Kahn, 1966; Mintzberg, 1983). Service military structures show strong resemblance to political structures in their political cultures and reward systems (Ehrhard, 2000). The comparisons and degree of similarities are virtually unlimited and at times contested, but what is inarguable is that enterprises interact and live within political systems. As such, political competitors will always seek strategic alliances within enterprise structures for mutually beneficial systemic, situational, and structural arrangements.

RATIONALE AND APPROACH UNDERLYING THE REVIEW

The purpose of the literature review is to narrow the volume of literature from relevant scholarly works to a set of primary sources for the research. As stated before, this research uses the dialectical analysis of concepts located in their theoretical perspective. Hence, the literature review must identify concepts that are most relevant

for the analysis of politics in enterprise transformations - concepts that illuminate the frictions between theoretical perspectives. This is accomplished using an implied theory of critical ideology that places concepts both in their historic and political contexts (Alford & Friedland, 1992, pp. 406-407). Politically, critical ideology is sensitive to the underlying assumptions within the literature. Historically, critical ideology examines concepts for their explanatory power and persistence over time. Critical ideology contains an element of conceptual history as found in Quentin Skinner (1978a, 1978b) and Reinhard Bendix (2001). Palonen (2002) writes, "Conceptual history offers us a chance to turn the contestability, contingency, and historicity of the use of concepts into instruments for conceptualizing politics" (p. 91). In the example described in Chapter I, Bendix (2001) examined the ideas of work and authority through management, industrialization, and ideological appeals in England, the United States, and Russia. The political use of the ideas of work and authority varied according to the theoretical perspective of the elite or ruling classes of the time. Further distinction between perspectives was achieved through Bendix's (2001) evaluation of concepts derived from these ideas, e.g., personal authority, legal authority, and traditional authority. Thus, critical ideology provides a guide for the choices of what concepts to include and exclude. Critical ideology is explained more fully as the framework is constructed in Appendix C: Coding the Clarifying Concepts and Appendix D: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. The explicit steps used in the literature review are as follows:

1. Review the databases in Table 2 and Table 4 for articles, books, and dissertations on (a) politics, (b) power, (c) influence, and (d) enterprise transformations. Capture the primary journals used in the research in Table 69. The review includes an examination of autocratic, bureaucratic, and pluralistic perspectives in these streams of literature for inclusion in the framework in Chapter V. Given the broad, imprecise, and contested nature of politics, these literature streams were summarized and critiqued. Contested theories and concepts and significant areas of research related to the analysis of politics in enterprises were examined. The critique and primary works identified are incorporated into the framework construction in Appendix C: Theoretical Framework Construction,

Appendix D: Coding the Clarifying Concepts, and Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives and include two focus areas. These areas are (1) systemic, situational, and structural contexts and (2) concepts located in articulated theoretical perspectives that meet the critical-ideology criteria. Primary works are identified for (1) determined distinguishing criteria in the twelve dimensions within the three contexts: world views, values, interests, historic narratives, trust, fear, participation, legitimacy, boundaries, dominance, communications, and geography. The criteria are articulated in Appendix D: Coding the Clarifying Concepts.

2. Additionally and within this chapter and Appendix A: Introduction to Rough Set Theory, resultant articles are reviewed for (1) frameworks using dialectical analysis, (2) frameworks for the analysis of politics in enterprises, and (3) analysis of concepts using rough set theory.
3. Primary books are identified from the bibliographies of chosen articles, books, and dissertations as well as relevant articles not found in the initial database search. The list of primary texts is in this chapter in Table 19 and in Table 69 in Appendix C: Theoretical Framework Construction.
4. Each step of the literature reduction is clearly documented for the purposes of validation. These clearly articulated reduction steps allow researchers with similar backgrounds to reproduce the literature review results and is consistent with the validation criteria found in Leedy (1997, pp. 168-169) and Gall, Borg, and Gall (1996, pp. 571-573).
5. Based on my academic knowledge and experience in enterprise transformation management, I ensure the information synthesized was sufficient and appropriate to address the research questions. Sufficiency criteria included literature that was peer-reviewed and has empirical or theoretical rigor and high-quality content.

These explicit steps describe the breadth, depth, and thoroughness of the literature review. In the next section, I present the literature review scheme that structures what data will be collected and for what purpose.

LITERATURE SEARCH SCHEMA

The subject of politics is inherently multi-disciplinary. Figure 2 below depicts the literature search schema describing how a wide variety of scholarly works from political science, sociology, international relations, mathematics, organizational theory, and complexity theory are narrowed to primary sources that support the research questions addressed in this study.

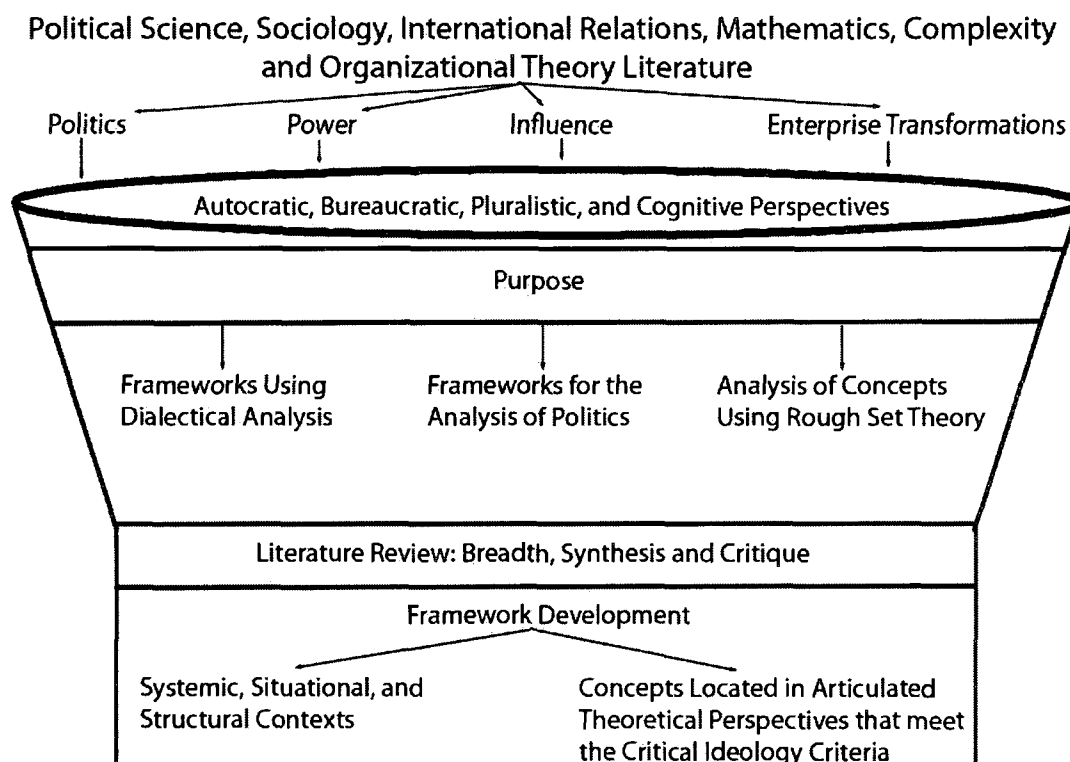


Figure 2 Schema for Literature Review

The literature review examines a broad variety of literature from multiple disciplines. As stated, the primary journals used in this research are listed in Table 69. The literature is reviewed with the purpose of the research in mind as well as clarifying the gap in the body of knowledge concerned with the analysis of politics in enterprise transformations. Thus, I survey and critique frameworks which use the dialectical analysis and frameworks that are used for the analysis of politics. The results of the analysis are presented in this section. The “Analysis of Concepts using Rough Set Theory” thread is contained in Appendix A: Introduction to Rough Set Theory.

Essentially, this section explains the elements of rough set theory (RST) relevant to the application of RST in Chapter VII. The systemic, situational, and structural dimensions of the theoretical framework are developed in Appendix C: Theoretical Framework Construction, while in Chapter V I describe the concepts derived from the literature review and reduce the set of concepts to those that fit the critical-ideology criteria. The primary scholarly works used in the study are classified as they relate to the research questions (Gall, et al., 1996, pp. 148-150) and are depicted in this chapter in Table 19 and in Table 69 in Appendix C: Theoretical Framework Construction.

LITERATURE ON POLITICS

This section synthesizes and critiques the literature on politics across the disciplines depicted in Figure 3. The breadth of the review was broad – I synthesize literature by sub-categories that emerged from the review. I find that there are two distinguishing characteristics across the literature – time horizon and the degree of abstraction from reality. I critique the literature with respect to these characteristics and demonstrate how the synthesized sub-categories relate to my research. Many areas of politics are contested within disciplines and across disciplines. The theoretical framework developed is invariant across these contested concepts by abstracting dimensions within the three contexts: systemic, situational, and structural resulting in a framework that transcends time, place, and personality.

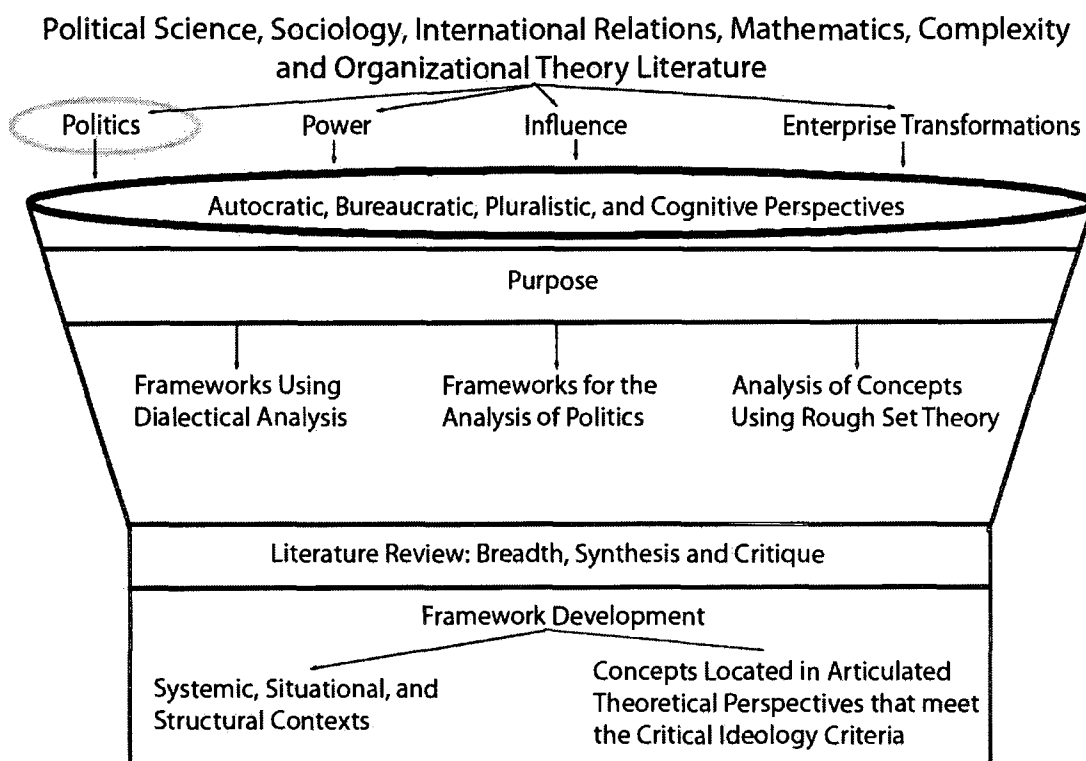


Figure 3 Synthesis of the Literature on Politics

Synthesis

In the opening chapter of *Political Culture and Political Development*, Lucian Pye (1965) writes about the difficulty in classifying politics:

Politics defies classification. It reflects at one and the same moment the full splendor and the pettiest meanness of man. The blends of emotion and reasoning that activate politics are invariably mixtures of such powerful but workaday ingredients as prestige, honor, loyalty, and the search for security in all its forms. There is politics of vision and aspiration; and equally politics of desperation and despair. How to classify a phenomenon that encompasses so much of human experience? Just as we sense that it may embrace the greatness of poetry, we are reminded that at times politics can be as trite and as trivial as the most banal of academic studies of it. (p. 3)

The literature on politics is broad and varied, defying any coherent classification. To reduce the literature to those works relevant to the research questions, I began with an overview of the structure of literature across disciplines previously described. I first examined literature in political science and international relations. I examined twenty-

five databases listed in Table 2. There is no separate database on international relations. In fact, the searches performed resulted in articles from a wide variety of disciplines including organizational theory, psychology, cognitive science, philosophy, and sociology. Depending upon the search options available, I searched for abstracts, citation text, and keywords in each of database for the terms in Table 2 and captured the numerical results. Records that were marked had the potential to contribute to one of the five focus areas indicated in the literature review schema. Note that the term *organization* was searched since this is a subset of the definition of enterprise. Additionally, *politics* and *power* will be considered separately in the next section. This rigorous and broad process ensured traceability and repeatability, contributing to the validation of the theoretical framework (Gall, et al., 1996; Leedy, 1997).

Table 2 Results from Search in Political Science and International Relations Literature

Database	Politics & Enterprise	Politics & Transformation	Politics & Organization	Politics & Concepts	Politics & Influence	Politics & Autocratic	Politics & Bureaucratic	Politics & Pluralistic	Politics & Cognitive	Total Number of Records (includes duplicates)	Total Marked Records
Alternative Press Index	7	71	56	57	55	2	9	6	6	269	59
Alternative Press Index Archive	6	7	122	0	2	0	1	0	0	132	14
American State Papers	0	0	0	0	0	0	0	0	0	0	0
Congressional Committee Prints	0	0	0	0	0	0	1	0	0	0	1
Congressional Hearings Digital Collection	50	1	172	23	69	0	2	1	1	319	0
Congressional Record Permanent Digital Collection	1230	20	2140	359	627	1	116	3	2	4498	0
Congressional Research Service Reports	4	0	24	3	8	0	3	0	0	42	1

Table 2 Continued

Database	Politics & Enterprise	Politics & Transformation	Politics & Organization	Politics & Concepts	Politics & Influence	Politics & Autocratic	Politics & Bureaucratic	Politics & Pluralistic	Politics & Cognitive	Total Number of Records (includes duplicates)	Total Marked Records
CQ Electronic Library	1000	513	1000	224	1000	151	397	89	56	4430	0
CQ Voting and Elections Collection	223	58	502	13	925	12	31	4	3	1771	0
Digital National Security Archive	0	1	26	0	12	0	0	0	0	39	0
Foreign Broadcast Information Service (FBIS) Daily Reports	7913	3732	17376	8036	12316	383	1656	365	45	51822	0
GPO Access	4	10	108	2	25	0	1	0	0	150	1
ICPSR-Inter-University Consortium for Political and Social Research	1	1	7803	31	962	0	0	0	3	8801	2
Legal Collection	43	79	250	165	314	5	27	9	8	900	31
LexisNexis Academic	1000	1000	999	13	999	1000	1000	421	435	6867	0
LexisNexis Congressional	61	2	230	29	85	0	7	1	1	416	0
Military and Government Collection	629	504	2819	633	2347	48	134	33	27	7174	5
National Security Archive	0	1	26	0	12	0	0	0	0	0	0
Official Documents of the United Nations (ODS)	1000	1000	1000	1000	1000	45	376	382	124	5927	2
PAIS Archive	7	1	44	1	24	0	0	0	0	77	5
PAIS International	20	81	165	39	342	1	41	8	5	702	12

Table 2 Continued

Database	Politics & Enterprise	Politics & Transformation	Politics & Organization	Politics & Concepts	Politics & Influence	Politics & Autocratic	Politics & Bureaucratic	Politics & Pluralistic	Politics & Cognitive	Total Number of Records (includes duplicates)	Total Marked Records
Political Science: A SAGE Full-Text Collection	20	178	459	485	486	7	92	18	49	1794	43
Serial Set (U.S. Congressional Serial Set)	8	0	110	1	0	0	0	0	0	119	0
Sociological Abstracts	189	1056	1583	1212	2102	21	321	144	213	6841	505
U.S. Congressional Serial Set	8	0	110	1	19	0	0	0	0	138	0

Many of the documents reviewed in the search were interesting, but not of a high enough academic standard to be included in the research. For example, Congressional Research Quarterly has well researched topics of interest to my work, but the articles lack both the theoretical depth and validation through an expert-level peer-review process. Other databases, such as the United Nations Official Document System (ODS) database, consisted largely of proceedings from meetings and the search was capped at 1,000 hits. This limit was not an issue for the literature review as the literature contained in these specific databases did not meet the degree of scholarly review required. The works marked were further analyzed for their relevance to the five focus areas in the literature, further reducing the literature. The resultant journals are documented in Table 3 below. In addition, book reviews and bibliographies provided a wealth of information on books relevant to my research. Each book was reviewed for its applicability to the five focus areas and the key works used in this research are documented in Table 69 in Appendix C: Theoretical Framework Construction.

Table 3 Reference List for Scholarly Journals in Literature Review

Discipline	Journal Title	ISSN/ISBN	Database Accessed
International Relations	Cooperation and Conflict	1460-3691	SAGE Journals Online
International Relations	European Journal of International Relations	1460-3713	SAGE Journals Online
International Relations	International Affairs	1468-2346	Blackwell Publishing
International Relations	International Relations	1741-2862	SAGE Journals Online
International Relations	International Security	0162-2889	JSTOR
International Relations	International Studies	0020-8817	SAGE Journals Online
International Relations	Journal of Conflict Resolution	1552-8766 0022-0027	SAGE Journals Online
International Relations	Journal of Peace Research	1460-3578	SAGE Journals Online
International Relations	Millennium – Journal of International Studies	1477-9021	SAGE Journals Online
International Relations	Peace Review	1040-2659	Sociological Abstracts
International Relations	Studies in Comparative International Development	0039-3606	Sociological Abstracts
International Relations	Third World Quarterly	1360-2241	Routledge
Mathematics/Complexity	Communications of the ACM	0001-0782	Compendex
Mathematics/Complexity	Journal of Information Science	1741-6485	SAGE Journals
Mathematics/Complexity	International Journal of Applied Mathematics and Computer Science	2070-3902	Compendex
Mathematics/Complexity	International Journal of Automation and Computing	1476-8186	Compendex
Mathematics/Complexity	IEEE Transactions on Fuzzy Systems	1063-6706	IEEE Xplore
Mathematics/Complexity	Information Sciences	0020-0255	ScienceDirect
Mathematics/Complexity	IEEE CNF (Conference Proceeding)	N/A	IEEE Xplore 2.5
Mathematics/Complexity	Lecture Notes in Computer Science	1611-3349	SpringerLink
Multiple	Doctoral Dissertations	N/A	Digital Dissertations
Organizational Theory	Academy of Management	0001-4273	JSTOR
Organizational Theory	Administration & Society	1552-3039	SAGE Journals Online
Organizational Theory	Administrative Science Quarterly	0001-8392	JSTOR
Organizational Theory	Education Administration Quarterly	1552-3519	SAGE Journals Online
Organizational Theory	Human Relations	1741-282X	SAGE Journals Online
Organizational Theory	Journal of Comparative Economics	0147-5967	Science Direct
Organizational Theory	Management Communication Quarterly	1552-6798	SAGE Journals Online
Organizational Theory	Management Learning	1461-7307	SAGE Journals Online
Organizational Theory	Management Science	1526-5501	JSTOR
Organizational Theory	Organization	1461-7323	SAGE Journals Online
Organizational Theory	Organization Studies	1741-3044	SAGE Journals Online

Table 3 Continued

Discipline	Journal Title	ISSN/ISBN	Database Accessed
Organizational Theory	Organizational Science	1047-7039	JSTOR in Sociological Abstracts
Organizational Theory	Public Policy and Administration	1749-4192	SAGE Journals Online
Organizational Theory	Technovation	0166-4972	Elsevier
Organizational Theory	The Leadership Quarterly	1048-9843	Science Direct
Political Science	Comparative Political Studies	1552-3829	SAGE Journals Online
Political Science	Cooperation and Conflict	1460-3691	SAGE Journals Online
Political Science	East European Politics & Societies	153-8371	SAGE Journals Online
Political Science	European Journal of Communication	1460-3705	SAGE Journals Online
Political Science	European Journal of Political Theory	1741-2730	SAGE Journals Online
Political Science	Information Polity	1570-1255	IOS Press
Political Science	International Journal of Cross Cultural Management	1741-2838	SAGE Journals Online
Political Science	International Political Science Review	1460-373X	SAGE Journals Online
Political Science	Journal of Theoretical Politics	1460-3667	SAGE Journals Online
Political Science	Law & Policy	1467-9930	Blackwell Publishers
Political Science	Political Research Quarterly	1065-9129	SAGE Journals Online
Political Science	Political Theory	1552-7476	SAGE Journals Online
Political Science	Politics & Society	1552-7514	SAGE Journals Online
Political Science	Politics, Philosophy & Economics	1741-3060	SAGE Journals Online
Political Science	Progress in Human Geography	1477-0288	SAGE Journals Online
Political Science	The ANNALS of the American Academy of Political and Social Science	1552-3349	JSTOR
Political Science	The Review of Politics	1748-6858	Cambridge Journals Online
Political Science	The Western Political Quarterly	1767-9299	Sociological Abstracts
Political Science	Transactions of the Institute of British Geographers	1475-5661	JSTOR
Sociology	American Psychologist	0003-066X	Sociological Abstracts
Sociology	Armed Forces & Society	1556-0848	SAGE Journals Online
Sociology	Discourse Studies	1461-7080	SAGE Journals Online
Sociology	European Journal of Social Theory	1461-7137	SAGE Journals Online
Sociology	Global Society	1469-798X	Informaword/Routledge
Sociology	Journal of Applied Behavioral Science	1552-6879	ABI/INFORM Global
Sociology	Journal of Social Issues	0022-4537	Sociological Abstracts
Sociology	Media, Culture & Society	1460-3675	SAGE Journals Online

Table 3 Continued

Discipline	Journal Title	ISSN/ISBN	Database Accessed
Sociology	Personality and Social Psychology Review	1532-7957	SAGE Journals Online
Sociology	Philosophy & Social Criticism	1461-734X	SAGE Journals Online
Sociology	Small Group Research	1046-4964	Sociological Abstracts
Sociology	Social Science Computer Review	1552-8286	SAGE Journals Online
Sociology	Social Theory and Practice	0037-802X	EBSCO
Sociology	Sociological Perspectives	0731-1214	JSTOR
Sociology	Sociology	1469-8684	SAGE Journals Online
Sociology	Sociology of Crime, Law and Deviance	1521-6136	Sociological Abstracts
Sociology	Sociometry	00380431	JSTOR
Sociology	The Pacific Sociological Review	00308919	JSTOR
Sociology	Theoria: A Journal of Social & Political Theory	0040-5817	Sociological Abstracts
Sociology	Theory, Culture and Society	1460-3616	SAGE Journals Online
Sociology	Thesis Eleven	1461-7455	SAGE Journals Online
Sociology	Time & Society	1461-7463	SAGE Journals Online
Sociology	Work, Employment & Society	0950-0710	Sociological Abstracts
Sociology	Work, Employment & Society	1469-8722	SAGE Journals in Sociological Abstracts

As I mentioned before, the search in political science and international relations databases resulted in articles from other disciplines. As I continued the process for databases in sociology, organizational theory, mathematics, and complexity theory, I found many articles identified in the previous searches. Some databases overlapped and others could be eliminated due to the scholarly level (e.g., popular literature).

Table 4 Additional Results from a Review of the Literature on Politics

Database	Politics & Enterprise	Politics & Transformation	Politics & Organization	Politics & Concepts	Politics & Influence	Politics & Autocratic	Politics & Bureaucratic	Politics & Pluralistic	Politics & Cognitive	Total Number of Records (includes duplicates)	Total Marked Records
Project Muse	48	171	177	61	244	10	22	10	12	755	19
PsycINFO	64	195	447	653	721	2	56	19	229	2386	184

Table 4 Continued

Database	Politics & Enterprise	Politics & Transformation	Politics & Organization	Politics & Concepts	Politics & Influence	Politics & Autocratic	Politics & Bureaucratic	Politics & Pluralistic	Politics & Cognitive	Total Number of Records (includes duplicates)	Total Marked Records
ScienceDirect	46	145	425	334	344	1	48	8	46	1397	33
ABI/INFORM Global	2039	3169	19705	1865	5594	203	592	83	122	33372	54
JSTOR	46	176	303	196	634	12	147	31	64	1609	46
Engineering Village (contains Compendex)	1140	848	3084	2239	2319	7	154	37	297	10125	42
IEEE Explore	5	0	24	13	22	0	0	0	3	57	8
Dissertations & Theses Full Text	688	3106	8016	5004	5023	55	778	200	326	23196	52
WorldCat	380	64	9858	55	2480	1	40	2	79	12959	59

In accordance with my validation criteria, themes and patterns in the literature began to emerge enabling the identification of variables for each of the five focus areas. This synthesis is particularly important for the construction of the framework in Appendix C: Theoretical Framework Construction, where I establish distinguishing criteria for each of the twelve dimensions in the contexts. The distinguishing criteria are used for the purpose of distinguishing descriptions of theoretical perspectives in the literature. As I continued searching, significantly fewer items required marking for further examination. The emerging variables involved similarities and differences among categories with the academic disciplines. For example, literature on the perception of politics in organizations included the variable of work commitment. Patterns of processes also began to emerge. For instance, the literature on decision making included similar terms to those relevant to my research, but often these terms were analyzed within the larger processes associated with decision theory. Hence, I could eliminate these works. The result of these emerging patterns was a significant reduction of the literature to primary sources. I will now turn to the major categories examined within the literature

on politics. At the end of this section I summarize contested areas in the literature and amplify the section criteria for inclusion and exclusion of works in the literature.

Perceptions of Politics in Enterprises

Perceptions of politics in enterprises have been linked to employee commitment (Witt, Patti, & Farmer, 2002), motivation (Valle & Witt, 2001), cynicism (W. D. Davis & Gardner, 2004), job satisfaction (Hu & Zuo, 2007), and work outcomes (Bozeman, Perrewé, Hochwarter, & Brymer, 2001). There are numerous questionnaires and surveys available for employers to assess enterprise climates and attitudes towards politics: the Survey of Organizational Climate (Taylor & Bowers, 1970), the Dominance Subscale from the Manifest Needs Questionnaire (Steers & Braunstein, 1976), the Job Characteristic Inventory (Sims, Szilagyi, & Keller, 1976), the Mach IV (Zook & Sipp, 1986), the Formalization Scale (Oldham & Hackman, 1981), the Perceptions of Organizational Politics Scale (Ferris & Kacmar, 1991), and the Work Locus of Control Scale (Spector, 1991) are just a few of the available tools. There are basically three areas of research on the perception of politics in enterprises: the conditions under which political behavior occurs, the types of political behaviors and their consequences, and “the determination of antecedents and consequences of individuals perceiving a work environment as political” (Ferris & Kacmar, 1991, p. 93). Yet even from the perspective of the researcher, the concept of politics within enterprises is contested (Buchanan & Badham, 1999, p. 625; Chao, Wenquan, & Liluo, 2006; Drory & Romm, 1988, p. 165; Hu & Zuo, 2007) and includes “illegal” behavior found in Mintzberg (1983), bullying (Ferris, Zinko, Brouer, Buckley, & Harvey, 2007; Liefoghe, 2001), coercive behavior (Voyer, 1994), and defensive behavior (Ashforth & Lee, 1990) as well as politics as an essential and creative process (Buchanan, 2008; Stone, 2002).

While some organizational analysis seeks to eliminate “politics” in order to promote the values of justice, support (Hochwarter, Kacmar, Perrewé, & Johnson, 2003; Poon, 2006), and efficiency (e.g., through Business Process Re-engineering (BPR)), researchers such as Knights and McCabe (1998) argue “that politics are essential to the very fabric of organizational life, which renders the outcomes of BPR uncertain and contested” (1998, p. 761). Variability in the perception of politics has been attributed to a

number of factors including the opportunity for promotion, feedback, skill variety, and job autonomy (Ferris & Kacmar, 1992) in addition to fairness of rewards, intergroup cooperation, clarity of roles, and recognition (Parker, Dipboyle, & Jackson, 1995). What is clear from the variety of contested perceptions on politics both from researchers and subjects is that empirical studies are subjective from multiple views. The questions asked, the hypotheses formed, and the conclusions taken are shaped by the values of the researchers and influence participants' perceptions of politics. Over time, these values can profoundly influence political discourse and culture within enterprises (Orlie, 2001).

The two most extensive studies on values relevant to the five focus areas are from Bales and Couch (1969) and Agle and Caldwell (1999). Harvard researchers Robert Bales and Arthur Couch (1969) analyzed eight hundred and seventy-two value statements from theoretical treatments of values and empirical data obtained through personality tests, tests of values, and statements made by subjects in group discussions. Their analysis concluded that there are four "orthogonal factors" that distinguish value statements. These orthogonal factors will be discussed further and incorporated into the theoretical framework in Chapter V. A search on Google Scholar indicates this work has been cited by 45 articles while the ISI Web of Knowledge states 23 citations. Citation dates range from 1970 to 2006. Another work I reference as a primary source examines levels of analysis. Bradley Agle and Craig Caldwell (1999) examined ten years of values research from nine peer-reviewed journals as well as values research articles found in bibliographies. Their methods yielded a database of over 200 articles on values research. The authors categorized the articles by levels to better understand the levels of analysis used in values research. Their results informed focus areas (4) and (5) and I discuss their research in more detail in Appendix C: Theoretical Framework Construction, under the section on values. Google Scholar indicates this work has been cited 79 times while SAGE Journals did not provide any cited information.

There are two important works on values that are often cited within the literature. Charles Morris's *Varieties of Human Values* (1956) examines "man's varied beliefs according to the good life" (Subtitle). Central to his study are thirteen conceptions of the good life; the data on which his scientific study is based analyzes the reaction of college students in various cultures to these "thirteen ways" (Morris, 1956). While his work is

more cited than Bales and Couch (315 as opposed to 23), the work by Bales and Couch is more relevant to the purpose of the research. Similarly, Milton Rokeach's edited book *Understanding Human Values* (1973) is cited by 423 and makes a significant contribution to theoretical, methodological, and empirical knowledge about human values. However, it is not as useful as Bales and Couch in helping me to distinguish value differences in theoretical perspectives.

While the literature on the *perception of politics* is largely inwardly focused, literature on the *politics of perceptions* is concerned with image, reputation, strategic communications, and winning the will of the people. The literature on this topic will be covered in the section on influence.

Politics and Culture

A common concept found in the literature on politics is political culture. Political culture incorporates both individual psychology and collective sociology and examines both universal phenomena as well as the role of the individual in society (Pye, 1965, p. 6). The focus of analysis is on better understanding "the ways in which people develop, maintain, and change the fundamental basis of political behavior" and the "collective stability and instability of different constellations of attitudes and sentiments" (Pye, 1965, p. 6). As such, distinct political cultures give meaning, predictability, and form to the processes, symbols, and patterns of communication within enterprises. Political culture is comprised of "the system of empirical beliefs, expressive symbols, and values which defines the situation in which political action takes place" (Verba, 1965, p. 513). Yet inevitably, the study of political culture leads to an examination of political socialization - "to the learning experiences by which a political culture is passed on from generation to generation and to the situations under which political culture changes" (Verba, 1965, p. 515).

Political culture is similar to the concept of culture introduced by Schein (2004, p. 12) but differs in its degree of emphasis on political behavior and historical narrative. Schein defines culture as "A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct

way to perceive, think, and feel in relation to those problems” (Schein, 2004, p. 12). This definition emphasizes the problem of socialization, the problem of “behavior,” and whether or not an organization can have more than one culture (Schein, 2004, pp. 12-14). Schein’s conception of culture is based on a means-ends approach where culture is created or constructed through problem solving activities. This differs from the often moral approaches found in research on political culture, where broader societal concerns are considered.

Surveys are often used in empirical studies of political culture. Analysis may examine a participant’s responses regarding the meaning, domain, and organization of politics (Szalay, 1984). Yet, as with research on perceptions of politics, empirical studies on political culture are shaped by existing conceptions of culture according to political, economic, and social contexts of the researchers and subjects; this is particularly notable in cross-cultural research (Howarth, 2008; Sackmann & Phillips, 2004).

Politics and Legitimacy

Shane Mulligan (2006) provides a brief history of the concept of legitimacy:

It emerged from the language of Roman law, with a root in the Latin *lex*, “law or statute.” The primary purpose of the term, or its enunciation, was to declare something, whether an action or practice or claim, as “lawful, according to law”; and to declare it thus was to “legitimize” it. The etymology of *lex* is uncertain, but it is known that it served in Rome as a means of reference to particular laws, or statutes, rather than to the idea of law or the body of law as a whole (as was signified by *ius*). Such early laws, moreover, were largely a codification of customs... (p. 358)

Since Roman times, the concept of legitimacy has highlighted the struggle over the right to make law and under whose authority, be it by heredity right, position, force, or popular consensus (Mulligan, 2006, p. 359). The concept of legitimacy may be best understood as a social process embedded within social organization and politics (Jost & Major, 2007). Research on legitimacy is approached from an examination of potential causes, epistemic characteristics, structural conditions, ideology, and prejudice (Jost & Major, 2007). The concept of identity is often central to psychological and sociological approaches to the study of legitimacy.

Mintzberg defines politics as “individual or group behavior that is informal, ostensibly parochial, typically divisive, and above all, in the technical sense, illegitimate – sanctioned neither by formal authority, accepted ideology, nor certified expertise (though it may exploit any one of these)” (Mintzberg, 1983, p. 172). Katz and Kahn (1966) take a similar approach arguing that the concept of legitimate authority is limited because the lines of influence do not necessarily coincide with designated hierarchical lines (p. 220). Politics in this sense arises through weaknesses in legitimate power where internal coalitions compete to influence policy and decisions in terms of its own perceptions of organizational interests (Mintzberg, 1983, p. 172). Weaknesses in legitimate power may be due to (Mintzberg, 1983, pp. 174-183):

1. The inability of internal coalition members to operationalize objectives. In this case, coalitions tend to favor those goals whose objectives are operationalizable.
2. The optimization of business units within a superstructure that assumes each unit will suboptimize to accomplish enterprise goals.
3. The optimization of employees to their own tasks as ends in themselves with the structure of a business unit and/or within a superstructure that assumes each unit will suboptimize to accomplish enterprise goals (the means-ends inversion).
4. Social pressure within the organization to satisfy the interests of particular groups.
5. Rather than taking guidance from a central authority, business units or individuals receive guidance from external influencers.
6. The displacement of legitimate power by employees because doing so serves their own personal interests.

Mintzberg’s work stands out in terms of the number of articles written that use his conception of politics and legitimacy. For example, two of his books, *The Nature of Managerial Work* (1980) and *Structuring of Organizations: A Synthesis of the Research* (1979) are cited by 3,774 and 4,546 texts, respectively. The work that I use as a primary text is *Power In and Around Organizations* (Mintzberg, 1983) which has 1,519 citations according to Google Scholar.

Legitimacy is included as a dimension in the situational context because of its relation to the range of interactions for which the political belief system is applicable. The extent to which private relations are politicized and personal relations are dominated by political criteria shape perceptions of legitimate political identities as opposed to parochial and partisan identities (Verba, 1965, p. 549). Verba (1965) writes:

Norms limiting the degree of politicization of personal relations and enforcing civility in political controversies play a major role in regulating the nature of political interactions. They limit the intensity of political conflict and maintain channels of communication and accommodation among political opponents. (p. 550)

Jürgen Habermas argues for a discourse ethics, rooted in the ideal speech situation, as the process for establishing the legitimacy of institutions. The legitimating force comes “from the communicative presuppositions that allow the better arguments to come into play in various forms of deliberation and from the procedures that secure fair bargaining processes” (Habermas, 1996b, p. 24). Habermas established a procedural approach to ensure free and uncoerced conversation. Han Kapoor (2004, p. 523) summarizes the ideal speech situation: “(1) inclusive, i.e., no one is excluded from articulating topics relevant to him/her, and no relevant information is left out; (2) coercion free, i.e., participants engage in arguments free of domination or intimidation; and (3) open and symmetrical, i.e. each participant can initiate, continue, and question the discussion on any relevant topic, including the very procedures that govern the discussion” (Habermas, 1976, pp. 107-109, 1990, pp. 88-89, 197, 1996b, p. 70). However, Habermas ties his procedures closely to the means-ends approach. In application it suffers the type of potential for agenda setting as Brown (1996) discussed in her analysis described in Appendix C: Theoretical Framework Construction. A. Michael Fromkin examined Habermas’ ideal speech situation in the context of cyberspace. Fromkin found that the initial forum for the debate of Internet standards, the Internet Engineering Task Force (IETF), “harbors an environment capable of providing the ‘practical discourse’” that Habermas suggests is a prerequisite to the creation of morally acceptable norms (Fromkin, 2003, p. 871). The IETF began with original designers of the internet and has survived its own legitimacy crises (agenda setting by other

organizations) through consensus-based procedures and open debate about agendas. Government attempts to legislate or bureaucratize the Internet standards process have failed as the participative communities did not recognize the legitimacy of such organizations to set standards (Froomkin, 2003).

Habermas's influence on the dimensions of legitimacy, participation, and communication is significant and has spurred numerous scholarly articles, books, and dissertations. I will refer to Habermas in many chapters within this research as a primary text for the focus areas. In Appendix C: Theoretical Framework Construction, I further discuss the concept of legitimacy as one of the twelve dimensions used in the theoretical framework. I will also return to the Habermas' concept of the ideal speech situation in the section on the dimension of participation in Appendix C: Theoretical Framework Construction.

Political Development

Political development is a concept that takes on various interpretations across the literature and is fundamentally about the transformation of one political system into another (LaPalombara, 1969, p. 4). Political development is an important independent variable that influences any kind of social, economic, or political enterprise transformation (LaPalombara, 1969, p. 4). In a rational, bureaucratic theoretical perspective, political development is the "prerequisite political environment essential for economic and industrial development" (Pye, 1965, p. 11). In this view, higher economic performance is the goal of political development. A related interpretation within this same perspective focuses on effective and efficient government administrative performance and capacity to carry out public policies (Pye, 1965, p. 11; Weber, 1978a). However, these views seriously underestimate the role of political power and ideology in the development of enterprises. LaPalombara (1969) writes, "It is impossible even in the most structurally differentiated political systems to conceive of the complete separation of function that would be required were there to be an attempt to restrict the bureaucracy strictly to an instrumental role" (p. 14).

Political development is also seen as an association between the "degree of development with the extent to which patterns of behavior identified as 'modern' tend to

prevail over those considered to be ‘traditional’” (Pye, 1965, p. 12). In this view, the historic trajectory described asserts development takes place when “achievement considerations replace ascriptive standards, and when functional specificity replaces functional diffuseness in social relations, and when universalistic norms supersede particularistic ones” (Pye, 1965, p. 12). Another conception of political development is concerned with the capacity of the administration of government as well as the polity as a whole to meet the increasing demands of the system. In this view, “A coherent, integrated society is more ‘developed’ than a fragile and fragmented polity” (Pye, 1965, p. 12). Similar to this view is political development as nation building to create viable nation-states that are competitive in the modern world. Other interpretations of political development relate development to gains in power through the use of society’s inherent resource base (Pye, 1965, p. 12). Finally, political development can be concerned with the advancement of liberty, popular sovereignty, and free institutions or democratic development (Pye, 1965, p. 12). In this view, differing ideologies such as communism and totalitarian systems can have more or less developed systems (Pye, 1965, p. 12).

In practice, political development can be a hybrid form of these different conceptions of political development. For example, in Pye (1965):

The key elements of political development involve, first, with respect to the population as a whole, a change from widespread subject status to an increasing number of contributing citizens, with an accompanying spread of mass participation, a greater sensitivity to the principles of equality, and a wider acceptance of universalistic laws. Second, with respect to government and general systemic performance, political development involves an increase in the capacity of the political system to manage public affairs, control controversy, and cope with popular demands. Finally, with respect to the organization of the polity, political development implies greater structural differentiation, greater functional specificity, and greater integration of all the participating institutions and organizations. (p. 13)

While political development is most often used in discussions of the role of states in development, some of the concepts described in this section are applicable to enterprises in general.

Politics and World Views

In the political science literature, there are often two distinctions drawn between world views. First, an ideological world view entails a “deeply affective commitment to a comprehensive and explicit set of political values which covers not only political affairs but all of life, a set of values which is hierarchical in form and often deduced from a more general set of ‘first principles’” (Verba, 1965, p. 545). The second world view is labeled “pragmatic” and is concerned with “an evaluation of problems in terms of their individual merits rather than in terms of some preexisting comprehensive view of reality” (Verba, 1965, p. 545). Further distinctions can be made in terms of open belief systems that are more open to compromise and closed belief systems that resist change; explicit belief systems that are carefully considered and implicit belief systems that are more flexible, less fragile, and focused on goal attainment; belief systems that stress expressive behavior where political activity and associated institutionalization are carried out for its own sake; and belief systems that stress instrumental behavior where political activity and institutions are means to other ends (Verba, 1965, pp. 546-547). In contrast, Schein (1992, pp. 22-23) argues that world views, or world or mental maps, are integrated sets of basic assumptions that “define(s) for us what to pay attention to, what things mean, how to react emotionally to what is going on, and what actions to take in various situations.” While not inconsistent with the distinctions between world views in political science, it is inherently functional and situationally based. It is a useful definition that relates world views to the situational contexts of trust, fear, participation, and legitimacy.

In his classic work, *Man, the State, and War*, Kenneth Waltz (2001) distinguishes world views that consider human nature as constant, and those that consider human nature as changing. I discuss Waltz’s work in Appendix C: Theoretical Framework Construction and use his book as one of my primary texts. A widely read book often used for classes in the field of international relations, Google Scholar indicates this work has 685 citations in other books and articles. In addition to Waltz (2001), and as world views are concerned with ontological and epistemological perspectives, I use the table on paradigms of inquiry from Egon Guba and Yvonna Lincoln’s work *Paradigmatic Controversies, Contradictions and Emerging Confluences* in the “SAGE Handbook of Qualitative Research” (2005). This widely read book section has been cited by 853

difference texts and contains distinguishing criteria useful to the construction of the framework. “World views” is a dimension within the theoretical framework, as is the concept of legitimacy. I will discuss this dimension in more detail in Appendix C: Theoretical Framework Construction

Politics and Emotion

Throughout history, totalitarian leaders, terrorists, or regimes have used the strategy of fear as a tactic in the battle of control of human minds. Thucydides (1998) argued that people are motivated by fear and honor, in addition to calculations of self-interest, while Nietzsche advocated *mnemotechnics* as the primary tactic to tame the animal man; “only that which never ceases to *hurt* stays in the memory” (Nietzsche, 1969, p. 61). While Nietzsche was not specific about what methods should be used, applied tactics studied in the literature include repeated suggestion, Pavlovian conditioning, deconditioning through boredom and physical degradation, and physical harm (Meerloo, 1956, pp. 163-176). Some of the most brutal fear tactics can be found in the early Chinese politics, where “slicing” and the elimination of generations of family members was the price for disobeying political guidance (Fu, 1993).

In more recent times, social power and mass media combine to influence and construct fear. David Altheide (2002, 2006) examines how others use and exploit fear – “the origin, use and consequences of fear and propaganda for social life.” He describes the politics of fear as “decision makers” promotion and use of audience beliefs and assumptions about danger, risk and fear in order to achieve certain goals (Altheide, 2006, p. ix). The politics of fear is paradoxical in that the change it generates keeps populations, territories, and resources safe, but over time the perception of value changes leading to public backlash (Altheide, 2006, pp. 207-208). He advocates clearer language about the context, nature, and consequences of proposed changes based on perceptions of fear, sensitivity to the social effects due to blanket adjustments in security and policy, critical thinking on the part of the population, and active defense of basic civil rights (Altheide, 2006, p. 220).

Another area of research in politics and emotions is cognitive dissonance. Within enterprises, dissonance may manifest in feelings of anxiousness or agitation. According

to Weick (1995) “To reduce dissonance, people ‘spread’ the alternatives by enhancing the positive features of the chosen alternative and the negative features of unchosen alternatives” altering the meaning of the decision (the historical narrative) (p. 11). But also, the disparity between behavior and belief is a powerful motivator of change in private views or public behavior (Zimbardo, 2008, p. 219). Weick (1995) incorporates elements of dissonance theory in his concept of sensemaking. In particular, he focuses on the inclusion of more cognitive elements consistent with the decision, justification after the decision, the reconstruction of historical narratives, social construction of justification, discrepancy as central to the start of the sensemaking process, and cognition shaped by action (Weick, 1995, p. 12).

More recent trends in the study of emotions are informed by discoveries in neuroscience that provide quantitative data for the analysis of emotions in enterprises (Fineman, 2000). The following works are relevant to the focus areas and are discussed in the section on fear and the section on cognitive perspectives in appendixes C: Theoretical Framework Construction and E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. Steven Rosen (1994, 2005) examines these advances in the context of human nature and war, Daniel Lord (2008) traces history “centered on the neurophysiological legacy of our deep past,” and George Lakoff (2008) uses recent knowledge of how the brain works to examine political advocacy and political life. Additional insights detailed in the appendixes mentioned are derived from Allison and Zelikow (1999), Katz and Kahn (1966), Zimbardo (2008), and Alford and Friedland (1992).

Politics of Identity

Closely related to political culture is the theory and politics of identity. Pye (1965) writes, “Each political culture differs according to its patterns of trust and distrust, its definitions of who are probably safe people and who are the most likely enemies, and its expectations about whether public institutions and private individuals are more worthy of trust” (p. 22). While some theorists who study the politics of identity “have adopted a cultural approach to identity politics which tends to assume that cultural markers translate naturally and spontaneously into identities that are inherently political,” other theorists

argue “cultural identities and their political manifestations are not ‘givens’ and that theorizing cultural identity politics should begin with questions on the processes of identity formation, transformation and politicization” (Lecours, 2000, p. 499).

The scholarly literature on the politics of identity is often focused on issues of gender, race, disabilities, and demographics. More recent articles examine the politics of identity within the context of the Internet; research investigates issues related to such topics as virtual worlds, virtual workgroups, and social networks.

Within the literature, concepts of loyalty and commitment are determined by the emphasis the culture places on identities. Pye (1965) describes the tensions that emerge:

...particularisms [occur] in the form of intense and overriding identification with the family or parochial grouping, or more generalizable identification such as with the nation as a whole. The process of political development...clearly involves a widening of horizons as people grow out of their narrow parochial views and take on a concern for the entire political system. This process, however, must occur without at the same time causing the people to become alienated from or hostile towards the primordial attachments that give vitality to their parochial associations. (p. 23)

The identification of individuals with the enterprise can come at the expense of other identities across social and economic groups. There is an inherent tension between the belief that one can participate fully in the decisions made in the enterprise and the belief that one is a subject of the rules, processes, and policies made by the elite in the enterprise. When enterprises transform, radical change occurs and can involve the rejection of traditional patterns or the incorporation of new beliefs into pre-existing ones. Retaining some degree of traditional patterns and identities and preserving the perceived right to participate while still being subject to the rules of the enterprise requires careful monitoring and balancing to preserve stability during transformation efforts (Verba, 1965, p. 544).

The politics of identity inherently examines issues of classification which lead to debates about boundaries. Stone (2002) writes, “At every boundary, there is a dilemma of classification: who or what belongs on each side? In policy politics, these dilemmas evoke intense passions because the classifications confer advantages and disadvantages, rewards and penalties, permissions and restrictions, or power and powerlessness” (p. 382). The way boundaries are perceived affect political behavior. In Appendix C:

Theoretical Framework Construction, I discuss various perceptions of boundaries that will be used to help distinguish theoretical perspectives.

Political Behavior within Enterprises

A synthesis of the literature on politics shows that within the literature there is large agreement on the types of individual or group political behavior that emerge – what differs are the labels applied and aspect of the behavior studied. There are a wide variety of broad and narrow approaches to the study of political behavior in enterprises (Argyris, 1994; Churchman, 1979, pp. 155-164; Handy, 1993, p. 298; M. C. Jackson, 2003, p. 149; Mintzberg, 1983). As mentioned earlier in this research, I adopt a broad definition of *enterprise* in order to encompass a wide array of contexts for political behavior (Oxford, 1989). What emerge from this section are characteristics of the sources of political behavior, potential conditions for the behavior, and how those behaviors might manifest. When these conditions of interaction occur they provide the possibility of strategic alliances.

Table 5 depicts some of the political games of the coalitions that might be found within an enterprise. While coalitions can be found within the bounds of legitimate power, Mintzberg argues that more often than not political games arise from weaknesses in the legitimate authority derived through weaknesses in the system of authority, ideology, and expertise (Mintzberg, 1983, p. 216). Argyris (1994) explains this phenomena in action-science terms where valid information routes are bypassed through various defensive patterns and routines rooted in social-psychological factors such as fear of threats or embarrassment. I consider these behaviors tactics of politics used to deal with points of friction between theoretical perspectives and within the specific context of the situation (type of enterprise, level of analysis, etc.). Hence, it is beyond the scope of this research to address specific situational political behavior.

Table 5 Characteristics of Political Games of the Internal Coalition (adapted from Mintzberg, 1983)

Game	Main Players	Common Political Means of Influence	Reason Played	Relationship to Other Systems of Influence
Insurgency	Unskilled operators (in large groups), lower-level managers and sometimes professionals (singly or in small groups)	Political will and skill, privileged information	To resist authority (or other legitimate power)	Antagonistic to legitimate systems
Counterinsurgency	Senior managers	Privileged information, exploitation of authority, political skill	To counter resistance to authority	Coexistent with legitimate systems
Sponsorship	Any subordinate or junior, usually managers, personal staff, or younger professionals	Privileged access	To build power base (with superiors or seniors)	Coexistent with authority or expertise
Alliance Building	Line managers	Political will and skill, exploitation of legitimate systems of influence	To build power base (with peers)	Suitable for legitimate systems, or else coexistent with authority or expertise
Empire Building	Line managers	All, but especially privileged access and political will	To build power base (with subordinates)	Coexistent with authority or expertise; sometimes substitutable for legitimate systems
Budgeting	Line managers	Privileged access and information, political skill	To build power base (with resources)	Coexistent with authority or expertise
Expertise	Operators and staff specialists	Exploitation of expertise or else political will and skill to feign it	To build power base (with real or feigned knowledge and skills)	Coexistent with expertise, or substitutable for it
Lording	Unskilled operators and their managers (sometimes professionals)	Exploitation of authority (or expertise or ideology)	To build power base (usually with authority, especially bureaucratic rules)	Coexistent with authority (or expertise or ideology)

Table 5 Continued

Game	Main Players	Common Political Means of Influence	Reason Played	Relationship to Other Systems of Influence
Line versus Staff	Line managers and staff analysts (sometimes support staff)	Exploitation of authority and expertise, privileged information, and access	To defeat rivals	Coexistent with authority for line, antagonistic to it for staff
Rival Camps	Any alliances or empires, usually in the middle line	Privileged information and access, exploitation of legitimate power, political will and skill	To defeat rivals	Substitutable for legitimate systems
Strategic candidates	Line managers, CEO, professional staffers and operators	Political will, privileged access, also political skill and privileged information	To effect organizational change	Coexistent with legitimate systems, sometimes substitutable for them
Whistle-Blowing	Usually lower-level operators or analysts	Privileged information	To effect organizational change	Antagonistic to legitimate systems
Young Turks	Usually higher-level line managers and/or staffers, sometimes professional operators	Privileged access, privileged information, also political will and skill	To effect organizational change	Antagonistic to legitimate systems

Mintzberg's concept of politics assumes individuals and groups exercise discretionary control of cognitive, monetary, or physical resource dependencies and/or strategic contingencies (Clegg, 1989; Pfeffer, 1981). However, Clegg (1989) argues, any conception of politics premised on discretionary control is tautological and is not useful in distinguishing power independently of resources:

How is power to be recognized independently of resource dependency? Resource dependency of X upon Y is the function of Y's power. Y's interdependence is the function of X's dependence upon Y, given the previous X-Y relationship. The cause of power is resource dependency. At the same time, the consequence of resource dependency is equivalent to its cause. Hence notions of cause and consequence are meaningless in such formulae. Part of the problem is the pervasive tendency to think of

power as a thing without considering that it must also be a property of relations. (p. 190)

As an example, Crozier (1964) studied the power of plant maintenance engineers to control uncertainty by being the only group that could maintain machinery . They were low in the hierarchy chain that assigned resources but as a sub-unit assumed a type of power over the resource holders (P. A. Wilson, 1999, p. 123). In this example power and politics contains a property of relations.

Politics and Time

Political behavior is influenced by the time horizon within which people and groups consider the future outcomes of alternative courses of action (Rosen, 2005, p. 242). In pluralist perspectives, short-term orientations may lead individuals to consider greater common goods over short-term gains. Tocqueville appears to be sensitive to the effect of short-term horizons and argues that societies should encourage individuals to pursue “self-interest properly understood”; individuals are interested in greater common goods because they live within communities that are affected by present actions (Rosen, 2005, p. 142; Tocqueville, 1969, pp. 526-527). In his study of urban poverty, Edward Banfield found “The individual’s orientation towards the future will be regarded as a function of two factors: (1) ability to imagine a future, and (2) ability to discipline oneself to sacrifice the present for future satisfaction” (Banfield, 1970, p. 47; Rosen, 2005, p. 142). In game theory, Axelrod (1984) found that “if individuals did not look beyond the immediate game or interaction in which they were playing, they would have no reason not to cheat or exploit the person with whom they were dealing” affecting cooperative and non-cooperative behavior (pp. 110-113, 126-132; Rosen, 2005, p. 142). From an economic point of view, the concept of discounting explains regret, temptation, addiction, and remorse and is further distinguished by hyperbolic and exponential discounting (Rosen, 2005, p. 145). In the latter, indulgence is avoided in lieu of longer term goals; in hyperbolic discounting, “the value of a reward is inversely proportional to the time delay in this delivery relative to the time of decision. It is this inverse relationship that yields the hyperbolic curve of expected value versus time” (Herrnstein, 1990; Rosen, 2005, p. 145). Rosen examines several empirical studies and concludes that there are probably

inherited characteristics and early environmental factors that influence an individual's ability to conceptualize the future and that these translate into systemic preferences in adult life; that is, the preferences remain regardless of the current environment (Rosen, 2005, p. 153).

Politics and Structures

The role of politics and political institutions is a significant factor in how stimulus is accommodated in enterprises – particularly in the area of technology. Milner (2006) examined country data from 1991 to 2001 over roughly 190 countries to demonstrate the power political factors have on the diffusion of internet technology:

Political institutions in particular matter for the adoption of new technologies because they affect the manner and degree to which winners and losers from the technology can translate their preferences into influence. Groups that believe they will lose from the Internet try to use political institutions to enact policies that block the spread of the Internet. These “losers” hope to slow down or stop its diffusion, and some institutions make this easier to do than others. (p. 178)

Autocracies are less likely to adopt this particular stimulus because it threatens interests. Additionally, autocracies have the means to slow down accommodation of a stimulus because institutions do not rely on broad public support (Milner, 2006, p. 178). However, where strong control over the technology is possible, autocracies can embrace the stimulus and use it to bolster political control through propaganda and information control; China has demonstrated this type of accommodation with internet technology (Chase & Mulvenon, 2002, pp. 87-89; Milner, 2006, p. 179). Kalathil and Boas (2003) studied eight authoritarian governments and found:

The state plays a crucial role in chartering the development of the internet in authoritarian regimes and in conditioning the ways it is used by societal, economic and political actors. Through proactive policies...authoritarian regimes can guide the development of the internet so that it serves state-defined goals and priorities. This may extend the reach of the state in significant ways. (p. 137 in Milner, 2006, p. 179)

By building on the existing statistical models with time-series dimensions, improved measures of democracy, and an expanded exploration of theoretical linkages

between Internet development and regime type, Milner concludes that autocracies tend to slow down the accommodation of new technologies while democracies promote the accommodation of new technologies (Milner, 2006, p. 180).

Two extensive works on how stimulus is accommodated in enterprises are Everett Rogers's *Diffusion of Innovation* (2003) and *The Diffusion of Military Technology and Ideas* by Emily Goldman and Leslie Eliason (2003). Rogers explores four main elements in his analysis of how innovations are absorbed within enterprises: (1) the innovation itself (idea, practice or object), (2) the communication channels through which new ideas are transferred (the means), (3) time (rates of adoption, speeds of communication, innovativeness of other units of adoption), and (4) the social system and structure that will absorb the innovation (Rogers, 2003, pp. 1-24). He ends with practical advice to managers on how to increase the speed and adoption of innovations. Goldman and Eliason's work takes on a geopolitical flavor described by Andy Marshall in the "Foreword" of their book – as case studies illuminate the "complex processes by which innovative military capabilities – including new technology, knowledge, and skills - diffuse from their originators to the military establishments of other nations" (Marshall, 2003). In both works, the type of innovations matter to the analysis. For the development of the theoretical framework, I consider their characteristics in terms of structural patterns, boundaries, and participation, but make no claims as to the effect of any one theoretical perspective on the speed or effectiveness of how well the stimulus will be absorbed. What is clear from their work is that the dialectic between contested concepts is a positive contribution to the diffusion of ideas, capabilities, practices, or objects.

The effect of hierarchies on politics is well studied in the literature. "All politics must involve the relations between superiors and inferiors, between initiators and followers" (Pye, 1965, p. 22). For example, Starbuck and Milliken (1988) argue that people at different levels within a hierarchy have different interpretations of common events:

People with expertise in newer tasks tend to appear at the bottoms of hierarchies and to interpret events in terms of these newer tasks they bring welcome changes that will offer them promotion opportunities and bring their expertise to the fore. Conversely, people at the tops of organizational

hierarchies tend to have expertise related to older and more stable tasks, they are prone to interpret events in terms of these tasks, and they favor strategies and personnel assignments that will keep these tasks central. (p. 53)

The degree to which hierarchies are used to manipulate power and influence will be discussed in the section below that describes frameworks for the analysis of politics.

Politics and Geography

The concept of “geopolitics” is central to many methods of inquiry concerning politics and geography. Alexander Murphy, Mark Bassin, David Newman, Paul Reuber and John Agnew (2004) describe two different conceptions that are not entirely exclusive: “Political geographers typically invoke the term with reference to the geographical assumptions and understandings that influence world politics. Outside of the academy, geopolitics often connotes a conservative or right-wing political-territorial calculus associated with the strategic designs of Henry Kissinger, Aleksandr Dugin, and followers of the new *Geopolitik* in Germany” (p. 619) These conceptions of geopolitics require specifics about the enterprise to be analyzed and thus are not included in the theoretical framework.

The study of politics and geography includes the study of how history is represented in space and time – the politics of representation. The politics of representation is concerned with understanding the social construction of histories and the associated ideological dimensions of public memory. Closely associated with this area of study is the politics of memory. The politics of memory is concerned with the interpretation and documentation of personal, group, and institutional histories. Garagozov and Braithwaite (2008) describe the politics of memory: “Characteristics of historiographical traditions that are inherent in various cultures tend, in turn, to condition the particularity and differences of ‘forms’ of collective memory” (p. 58). The study of the global politics of memory in terms of globalizing symbolic conflicts over memory is a relatively new area of research (Halas, 2008). The study of how historical stories along with their associated temporal sequences are constructed in space is also relatively new (Azaryahu & Foote, 2008). Within enterprises, spatial media (e.g., posters and public affairs media) may not highlight entire stories but highlight key moments “in the action

that encapsulate, embody, symbolize and otherwise call to mind an entire plot” (Azaryahu & Foote, 2008).

In the literature on politics and geography, the most relevant area of study for my research is globalization. The extensity, intensity, velocity, and impact propensity of multi-national enterprises are extensive and varied. These spatio-tempo dimensions are explored in *Global Transformations*, by Held, McGrew, Goldblatt, and Perraton (1999). Using a dialectical analysis, the authors explore three theoretical perspectives on globalization supported by a theory of global transformation. This work is my primary source for the dimension “geography” which I will discuss later in Appendix C: Theoretical Framework Construction.

Political Economy

Political economy may be best understood in the context of globalization. The role of the enterprise is changing as the world becomes more interconnected and interdependent, creating new patterns of communication between enterprises and political systems. Large multi-national enterprises like BP and Saudi Aramco have a more comprehensive view of global environmental, economic, and cultural trends than most national governments, leading these enterprises to play “a pivotal role in convening people to see larger systems that transcend national boundaries, and to confront deep issues that political partisanship may obscure” (Senge, 2006, p. 360).

Theodore Lowi argues that “The task of political science should now to expose the loose and insecure moorings of economic ideology and to develop an approach more appropriate to the realities of our time” (Lowi, 2001, p. 131). He argues that economic theory has taken on its own ideology that rationalizes states as the irrational actor in an otherwise global capitalist system that self-corrects to manageable equilibrium (Lowi, 2001). The institutional phenomena studied by political science is assumed away in lieu of such concepts as an “economic theory of democracy” that “gains its credibility from economic science and from anecdotal evidence about how capitalism vanquished authoritarianism, while ignoring contrary and unsupportive anecdotes” (Lowi, 2001, p. 132).

Politics and Systems Theory

I mentioned several systems approaches to the study of politics in the section on political behavior. Churchman identified politics as one of the “enemies” to the systems approach along with morality, religion, and aesthetics (Churchman, 1979, p. 157). He claims that the political approach is based on the idea that those in power should rule the world and decisions are optimized to keep the powerful in power. What Churchman is arguing against is the politics of greed as well as the “morally shocking” idea that people in power are the ones that should rule (Churchman, 1979, p. 157). Churchman (1979) does support the idea to “make polis” as an act of a community in a non-dictatorial society. In this case a family might “make polis” to get a child through school; a nation “becomes polis” in time of war and groups “form polis” over causes like pollution (p. 157).

Churchman (1979) contrasts the politics approach to the ideal-planner who is “dedicated to helping the human race ease its burdens through the design of a political process” (p. 161). Yet the idea-planner is cognizant of politics by maneuvering between layers in the organization to identify where decision-making is blocked (Churchman, 1979, p. 162). Churchman (1979) leaves hope that debate between the political and systems approach could lead to a dialectic where a synthesis would emerge, but at the end he is not hopeful and leaves the reader with a paradox where the systems approach continually attempts to incorporate politics but the political “enemy retaliates with a counter-polis that is critical of results and limits funding and promotion of the systems approach” (p. 164).

Relevant Methodologies in Politics

There are two methods of research applicable in the study of political culture. The first is concerned with elite political culture and studies the world views, values, interests, and historic narratives of individuals and small groups. The second method examines mass political culture which requires surveys and measurements of public opinion. The availability of information and conditions for research often shape which method is chosen. Since both are present in political systems, it follows that systems can be classified based on the character of the relationship between elite and mass cultures

(Pye, 1965, p. 16). For example, degree of homogeneity and cultural integrity are two characteristics of the relationship between elite and mass political cultures (Pye, 1965, p. 16).

Neither the degree of political development nor the degree of stability appears to be directly correlated to the degree of difference between elite and mass cultures (Pye, 1965, p. 16). Instead, political development and stability are more affected by differences in the socialization processes (Pye, 1965, p. 17). As long as there is a sequential pattern of socialization in both elite and mass cultures, increasing specialization and social mobility characteristic of highly developed systems will not over-stress the stability of the political culture (Pye, 1965, p. 17).

A second division that occurs between elite and mass culture is the division that separates those more acculturated to traditional ways of life from those who prefer modern patterns of life (Pye, 1965, p. 17). Within enterprises, the two divisions can coincide, bifurcate along urban/rural lines, or proceed along geographic divisions (Pye, 1965, p. 17). Emerging “modernization” that occurs in one culture may grow to replace concepts of modernization in the other, fusing gaps between elite and mass, traditional and modern (Pye, 1965, p. 18).

The areas of study described above affect the assimilation of concepts throughout society or groups within society and have been a focus of study for many researchers. Research on different political cultures has suggested the paradoxical proposition that “strong and effective traditional systems may provide the ideal basis for subsequent development if they provide a people with a firm sense of identity, but the strength of the traditional order will impede development to the degree that it makes impossible the infusion of new or modern elements of political culture” (Pye, 1965, p. 21). In the situational context, the patterns of political interaction are affected by the belief structures found in systemic contexts (Verba, 1965, p. 550). Verba (1965) writes:

In general, a non-ideological political style with a high degree of civility in political intercourse and a low degree of politicization of personal life is likely to develop where there is a strong sense of national identity and where the horizontal ties of political integration are strong. The sense of common membership in a political community facilitates the maintenance of such norms of political interaction as pragmatic bargaining and civility. (p. 550)

The major determinant of national identity is historic narrative found in systemic contexts. That is, the set of historical events by which the nation was formed (Verba, 1965, p. 555). The patterns of political interactions in enterprises are analogous to these phenomena. The historical events by which the enterprise was formed are a significant determinant of enterprise identity. The patterns of political interactions within the enterprise are shaped by this identity setting structural contexts that reinforce these patterns and beliefs, yet there is a symbiotic relationship between structural contexts and enterprise identity whereby the latter can be re-shaped, to some degree, by process and design.

Crises also play a critical role in the attitudes individuals have toward the enterprise in which they are members. Crises can either create a shared sense of community or crises can be divisive and create distrust (Verba, 1965, p. 556). Both affect the sense of political integration within the enterprise.

In terms of participation, groups that are barred from participation tend to focus on more distant goals that are psychologically rewarding, encouraging an ideological approach to politics (Verba, 1965, p. 558). Groups that are allowed to participate in the political process and decision making tend to focus on the attainment of practical and relatively limited political goals (Verba, 1965, p. 558).

Critique

The synthesis of the literature on politics describes the categories that emerge from the literature relevant to the five focus areas; the purpose is not to provide an overview of any one discipline. On the one hand, there is a large amount of empirical data that studies perceptions, opinions, and patterns of political behavior. Frameworks that study these phenomena are numerous and based on theories in psychology and sociology. On the other hand, the synthesis reveals a plethora of historically situated data that lead me to ask: if politics is solely a historical figuration of conventional phenomena, is it possible to construct a theoretical framework that is invariant over the high degree of uncertainty and complexity found in enterprise transformation problems? I believe the answer is yes. The frameworks developed by Alford and Friedland (1992) and Allison and Zelikow (1999) have significant explanatory power. They are, however, focused on

the enterprise of government – this research broadens that view with (1) an analysis of concepts that includes concepts associated with enterprise transformations and (2) an evolving framework construction that takes into account the limits of a “grand theory” of any one theoretical perspective. Concepts change meaning over time and those changes are amplified in enterprise transformation environments.

Two distinguishing characteristics across the literature on politics are time and the level of abstraction of the domain of analysis from reality. Shorter time frames allow for situational analysis – personalities, emotions, and perceptions affect work performance, commitment, and so on. Longer time frames allow for historical analysis as found in studies on political culture. Table 6 summarizes the sub-disciplines of political analysis explored and their associated time and general level of abstraction from reality.

Table 6 Sub-disciplines in Politics, Time Horizon, and Level of Abstraction

Synthesized Area	Time Horizon	Degree of Abstraction from Reality in Enterprise Transformation Situations
Perceptions of Politics in Enterprises	Short	Medium
Politics and Culture	Long	High
Politics and Legitimacy	Medium	Moderate
Political Development	Long	High
Politics and World Views	Long	High
Perceptions of Politics in Enterprises	Short	Medium
Politics and Culture	Long	High
Politics and Legitimacy	Medium	Moderate
Political Development	Long	High
Politics and World Views	Long	High
Politics and Emotion	Short-Medium	Moderate-High
Politics of Identity	Medium	Moderate
Political Behavior within Enterprises	Short	Low
Politics and Time	Short-Medium	Low-Moderate
Politics and Structures	Short-Medium	Low-Moderate
Politics and Geography	Long	Low-Moderate
Political Economy	Short-Medium	Low
Politics and Systems Theory	Short-Medium	Moderate-High

Addressing all aspects of politics in enterprise transformations in equal detail would be too ambitious – what is needed is a way to distinguish what type of analysis is relevant, why it is relevant, and the limitations of analysis. Table 7 depicts a synthesis of the literature from a systemic, situational, and structural view.

Table 7 Political Areas Mapped to Systemic, Situational, and Structural Contexts

Synthesized Area	Systemic	Situational	Structural
Perceptions of Politics in Enterprises		X	
Politics and Culture	X		
Politics and Legitimacy		X	
Political Development	X		X
Politics and World Views	X		
Politics and Emotion		X	
Politics of Identity		X	
Political Behavior in Enterprises		X	
Politics and Time	X	X	
Politics and Structures			X
Politics and Geography			X
Political Economy		X	X
Politics and Systems Theory	X	X	X

In the systemic context, power operates at the societal level, generally over long time frames with a relatively high level of abstraction from reality. Analyses in the areas identified in the literature review rely largely on historic analysis and theories in psychology and sociology. Theories can be highly contested, particularly in systems theory with assumptions about human nature and enterprises ranging from the scientific management of Beer (1966) to sensemaking in Weick (1995). The former might argue my claims, supported by Alford and Friedman (1992) and Lukes (2005), regarding the high level of abstraction from reality, but there is room for his view in the bureaucratic perspective. The theoretical framework I develop is not a meta-theory, but does emphasize weaknesses in the three contexts. That is, if systemic contexts were as Beer describes them, the domain of analysis would be a close approximation to reality; the tools based on rational actor models would be highly effective in analyzing politics in systemic contexts. I assume rational actor models are, like Newtonian physics, a first approximation in the analysis of politics in enterprise transformations. Researchers require analogous relativity and quantum mechanics tools to adequately analyze political phenomena in enterprise transformations. I talk more about this assumption in Chapter III.

Significant empirical data exists in the literature within situational contexts. However, they suffer from significant biases of the researchers. Surveys and interviews by researchers with autocratic perspectives vary greatly from those with pluralistic or

democratic perspectives. Not surprisingly, researchers who survey entire areas of research have noted these biases (R. M. Goldman, 1972; Orlie, 2001; Rokeach, 1973). In order to reduce bias, the theoretical framework developed uses the research that examines broad patterns in situational contexts (e.g., Bales and Couch). However, it is not possible to completely eliminate bias. I discuss my research biases in the research in Chapter V under researcher position as well as in Chapter VII.

With the exception of the area of political development, structural contexts, particularly in economics, emphasize rational actor models of human behavior. What varies is the degree to which researchers rely on instrumentation to reduce or “eliminate” politics. Bureaucrats tend to desire a high degree of instrumented “rationality” to reduce ambiguity within enterprises, while pluralists prefer a more democratic approach that encourages participation and ownership. More about these differing views is discussed in the sections below.

Spatio-temporal issues associated with the analysis of politics are captured in the dimensions “historic narrative” and “geography.” The historic narrative provides a general historic trajectory from a societal view, while the dimension of geography examines the specific relationship between enterprises and geography in the context of globalization. If there continues to be a blurring of territorial governance with the state combined with strong economic ideologies, the very concept of sovereignty may change in meaning.

LITERATURE ON POWER

This section synthesizes and critiques the literature on power across the disciplines depicted in Figure 4. Most of the scholarly works associated with power were identified from the extensive searches in the previous section. I found that agency and causation were common concerns across the work although for some forms of systemic power the existence of a specific agency is not required. The literature reviewed largely focuses analysis on the roles people play in a positional context, although literature based in critical paradigms often treated power as ubiquitous.

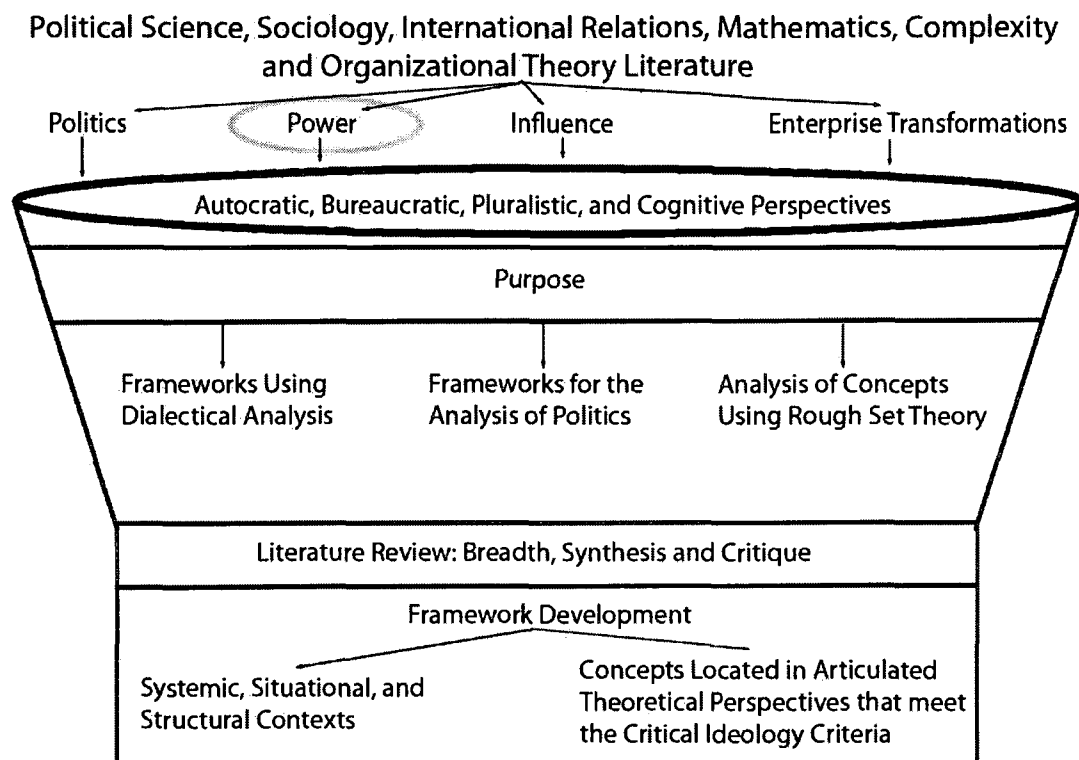


Figure 4 Synthesis of the Literature on Power

Synthesis

As I mentioned in Chapter I, the concept of power is central to a discussion about politics in enterprise transformations. Concepts of power range from the use of power to compel others to do one's will (Arendt, 1956, p. 406; Dahl, 1957, pp. 202-203), the power inherent in the capacity to exert power, as through agenda-setting (Bachrach & Baratz, 1962, p. 947), and power that compels and shapes the wants of an individual or group (Lukes, 2005, p. 37; Staats, 2004, pp. 590-593). An assumption in each of these concepts is the existence of a responsible agency or agent that has made a deliberate decision to apply power. Some concepts of power do not require this assumption. Foucault examined the "normalizing power" that shapes individuals into agents as a power that "operates through a network of religious, journalistic, therapeutic, medical, legal, and educational institutions, relying to a significant degree on the self-policing of client populations" (Bennett, 1991, p. 86). A Kafkaesque description of power eliminates the assumption of a responsible agent or agency. Here there are no definitive targets that are directly responsible for the application of power and no sites of efficacy accountable

(Bennett, 1991, p. 86). In this concept of power, the “system” exerts a type of power on individuals that is only seen through their frustration or interpersonal conflict; it is power without a locus that shapes organizational experience (Bennett, 1991, p. 89). The literature on organizational theory may categorize this latter type of power as cultural issues.

Dahl’s quote at the beginning of this chapter illustrates the degree of diversity in conceptions of power. Dahl’s rigorous analysis was in part a response to this excessive individualism in the research on power. For Dahl, power is a capacity over something or someone where A gets B to do something he or she would not otherwise have done (Dahl, 1957; Morgan, 1998, p. 162). A primary criticism of Dahl’s model is the fact that such models fail to take into account whether an exercise of power is intentional (Clegg, 1989, p. 10; Lukes, 2005; Russell, 1938; Weber, 1978b; Wrong, 1979). The problem of intention was behind Newton’s (1975) significant criticism of Dahl’s landmark study of a New Haven community. Newton pointed out that communities are established by the inherently political act of drawing boundaries creating a “mobilization of bias” that should be taken into account in analyses on power (Clegg, 1989, pp. 12-13). Despite these criticisms the importance of Dahl’s work is significant in that it served to “tighten” the predominant (and less precise) elitist style of analysis and provided “a much sharper model of power than had previously been seen, even if its actual representations were not as clearly focused” (Clegg, 1989, p. 11). According to Dahl, despite the lack of precision in operational contexts, the development of a rigorous concept of power was useful as a standard against which to measure operational alternatives employed (Dahl, 1957, p. 214).

The extensive literature review in the previous section left little to be discovered upon further investigation of databases on the topic of power and politics. The literature on the sources of power reveals multiple lists of skills, things, and desired situations. The debate about the concept power largely centers on the axes of agency and casualty (Clegg, 1989), although Foucault spends considerable time on systemic power that may have no identifiable agency (Foucault, 1980). Influence is closely related to power but often centers on the roles people play in a positional context. I argue that both influence and power do not necessarily need an intentioned agent because the structures enterprises

instrument often determine unacknowledged boundaries and relations of dominance that can significantly shape political behavior.

As mentioned above, a central debate in the power literature is concerned with concepts of causality and agency. One typically finds in the literature on power “likely stories” that both provide explanations of power and intension but also serve to point “away from an account constructed in terms of event causation to one constructed in terms of what will be called social causation” (Clegg, 1989, p. 11). Clegg defines event causation as a Humean view of universal causal laws while social causation is concerned with concepts of rules of the game (Clegg, 1989, p. 11). Clegg’s “Circuits of Power” (1989) framework examines power and conflict based on Foucault’s theories of knowledge, power and resistance (Foucault, 1979, 1980, 1986, 1988; Nolan, 2005, p. 2). Both facilitative and dispositional powers are components that create the “circuit.” Clegg (1989) writes, “The circuit of power passing through system integration is conceptualized in terms of techniques of discipline and production, while the circuit of social integration is conceptualized in terms of rules that fix relations of meaning and membership” (p. 18). Clegg’s conception of power is one of several represented in Table 8.

There are many sources of intentional power described in the literature. Morgan (1998, p. 163) explains that fundamentally power is used to cope with uncertainty. This characteristic of power is also reflected in Axiom 10 in Chapter I – political behavior evolves in such a way as to minimize uncertainty in the view of the agent who employs power and influence (Wimsatt, 2007). For Morgan, situational power manifests through interpersonal alliances, networks, and control of the “informal integration” (Morgan, 1998, p. 163). Structurally, power manifests through formal authority, control of scarce resources, the use of the organizational structure, the use of rules and regulations, control of decision processes, control of boundaries, control of technology, control of counter-organizations, and the use of gender and the management of gender relations (Morgan, 1998, p. 163). Pfeffer (1992) examined both personal and structural attributes as factors in influencing enterprise behaviors. He saw situational power shaped by personal attributes – flexibility, stamina, and high tolerance for conflict. Structural factors include the control of resources, access to information, and formal authority.

Klein (1999, p. 288) examines sources of power in terms of personal abilities. These systemic sources of power included an individual's ability to use intuition through pattern recognition, understanding the big picture, achieving situational awareness, the ability to use leverage points to solve ill-defined problems, and seeing the invisible by being able to understand perceptual discriminations and expectancies (G. Klein, 1999, p. 288). In this situational context, Klein sees power manifest in the ability to make use of knowledge. That is, the ability to tell stories, read people's minds (communicate intent), understand the team mind (draw on experience base of team), recognize the typicality of a situation (goals, courses of actions), detect anomalies, judge the urgency of a problem, detect opportunities, make fine discriminations, and detect gaps and barriers in a plan of action. Structurally, the ability to perform rational analysis and judge the solvability of a problem are sources of power (G. Klein, 1999, p. 288).

In many models of power there is a centrality of the relationship between domination and submission (Terriff, Croft, James, & Morgan, 1999, p. 94). Alternative power paradigms include power through persuasion, power through acting in concert, and power that elevates humility rather than domination as the behavior model (Terriff, et al., 1999, p. 94). Alternatively, researchers such as Parsons (1967) view power as analogous to money. Clegg (1989) writes, "when considered as circulatory media, [power] may be seen to have an effectiveness which is well in excess of their actual resource base in monetary metal or in the available means of coercion, influence, persuasion, deterrent and so on" (p. 130). Parsons viewed society as marked by patterned and regular cooperative interaction among social actors. Social actors are drawn to normative contexts, avoiding the Hobbesian state of nature (Clegg, 1989, p. 131).

For Lukes (2005), the key problem of power is a definitive specification of the issues that reflects the dialectics of power and structure (Clegg, 1989, p. 14). His analysis exposed a "dualism" of agency and structure which Giddens (1976, 1984) incorporated in his structuration theory. This theory views structure as a collection of feedback loops with agents within the structure. Lukes writes, "we use the word 'power' to refer to a large number of different concepts, ... we do not get anywhere by asking which of these is the 'concept of power'" (p. 204). The context of the usage matters before one can begin to talk about power, let alone agency and structure. Critics of

structuration theory (Barbalet, 1987; Layder, 1987) argue that the resulting analysis is little more than a complicated subjectivist position (Clegg, 1989, p. 14; Giddens, 1984). Giddens' work evolved to include a facilitative conception of power as found in Talcott Parsons' (1967) and Foucault's (1977) positive, non-zero sum conception of power. This research is sympathetic to Lukes' view that the concept of power should be examined in the context of the perspective and context in which they are used (Lukes, 2005, p. 205). Lukes makes recommendations on how these contexts and perspectives might be uncovered. He suggests direct and indirect experiments but acknowledges that "power of the actors can change over time, either due to changes in extrinsic factors, or because of changes due intrinsically to the experiment" – subjects change continuously in time (Lukes, 2005, p. 131).

Lukes distinguishes political power from other power in two different ways. Political power is instrumental power that, "through a process of collective decision-making, our individual powers are transformed from the power to do one set of things into the power to do another set" (Lukes, 2005, p. 46). This wide sense of power is concerned with how power is transformed. The second way political power is distinguished is through formal power. Formal power is power in the form of legal right (Lukes, 2005, p. 46). Lukes suggests that a resource-based approach is problematic – particularly when applied to social and political situations. Such a theory would explain what counts as a resource and how effectively it is used. Lukes (2005) explains, "Since it is rarely possible to test such theories adequately, they tend to turn into dogmas" (p. 143). The types of resource power that might be considered in the political process are numerous:

To have servants, is power; to have friends, is power: for they are strengths united. Also riches joined with liberality, is power; because it procureth friends, and servants. ... Reputation of power, is power; because it draweth with it the adherence of those who need protection. So is reputation of love of a man's country, called popularity, for the same reason. Also what quality soever maketh a man beloved, or feared of many; or the reputation of such quality, is power; because it is a means to have the assistance, and service of many. Good success is power; because it maketh reputation of wisdom, or good fortune; which makes men either fear him, or rely on him. (Hobbes, 1962; as cited in Lukes, 2005, p. 143)

Lukes adds to this list the power of gaining resources from those who have more resources, protesting activity, the ability to be a nuisance, and playing on the conscious of others. Lukes acknowledges these types of powers are less frequently used (Lukes, 2005, p. 143). Luke's student John Gaventa explored the play between power and powerless in his study of the coal industry and society in an Appalachian Valley (Gaventa, 1980).

In international relations, power is typically measured in terms of military might and the ability to create capabilities (Cottam & Shih, 1992, p. 60). As I discuss later in my research, this conception of power has a natural tension with economic ideologies that promote economic hegemony as a way to reduce conflict and maintain power. Cottam and Shin (1992) examine international relations and conventional conceptions of power (and other concepts) and advocate for a cognitive approach to international organizations. Cognitive perspectives on power examine the power of narratives and how people structure the world cognitively as opposed to treating cognition structures as a constant (e.g., rational actor models). In Appendix C: Theoretical Framework Construction I develop this theoretical perspective further.

In the bureaucratic perspective, power is exercised through the routines of administration in both civilian and military officialdom (Weber, 1978b, p. 1393). Officialdom is "characterized by formal employment, salary, pension, promotion, specialized training and function division of labor, well-defined areas of jurisdiction, documentary procedures, hierarchical sub- and super-ordination" (Weber, 1978b, p. 1393). The military and the workers are subject to the needs and problems as identified by bureaucracies. Weber (1978b) writes:

The majority of Russian soldiers, for example, did not want to continue the war [in 1917]. But they had no choice, for both the means of destruction and of maintenance were controlled by persons who used them to force the soldiers into the trenches, just as the capitalist owner of the means of production forces the workers into the factories and the mines. This all-important economic fact: the "separation" of the worker from the material means of production, destruction, administration, academic research, and finance in general is the common basis of the modern state, in its political, cultural and military sphere, and of the private capitalist economy. In both cases the disposition over these means is in the hands of that power whom the bureaucratic apparatus (of judges, officials, officers, supervisors, clerks and non-commissioned officers) directly obeys or to whom it is available in case of need. (p. 1394)

In terms of the political process, pluralists tend to hold the view that votes are the source of power (Lukes, 2005, pp. 143-144). Autocrats, who live in a system of relationships, see power in family and community histories. In some sense, autocrats hold similar views of power as elitists who control power through a network with other elites that manifests in the control of production (Lukes, 2005, p. 144). Cognitivists might see the situation in terms of class struggle. Marx (1978b) wrote, “Political power, properly so called, is merely the organized power of one class for oppressing another” (pp. 490-491). In its defensive form, cognitivists find power in subversive elements such as information warfare, psychological operations, and propaganda. On the offense, cognitivists use the power of populations to amplify their points in public debate or provide advice behind the scenes with influential leaders. Certainly parts of the cognitivist conception of power are found (and exploited) in other perspectives, but the cognitivist is characterized by a greater degree of maneuverability lacking the baggage of bureaucratic games.

Critique

Influence is closely related to power but, in its intentional form, power often centers on the roles people play in a positional context. This is the conception of power found in Dahl (1957), Clegg (1989), and the majority of literature in military studies. Systemic power is ubiquitous and in some ways closer to conceptions of influence than other conceptions of power. Foucault (1986) and Gaventa (1980) typify this conception of power. Theories about power in the cognitive perspective are dominated by the type of class struggle view found in Marx (1978a) and Gouldner (1976). The power of narratives, images, scripts, and roles is explored further in Appendix C: Theoretical Framework Construction as I establish groundwork for a cognitive theoretical perspective. The groundwork is based largely on the work of Lakoff (2008) and other cognitive scientists as well as the literature in political psychology. Finally, while Schein (2004) and Klein (1999) emphasize positional power, their focus of analysis is on the individual’s ability to develop and use personal power as a way to manipulate systemic, situational, and structural arrangements. Table 8 summarizes some of the key positions on power derived from the literature review.

Table 8 Concepts of Power (*adapted from Clegg, 1989)

Author	Concept of Power	Concept of Agency	Concept of Causality
(Bachrach & Baratz, 1962) *	Power measured by response but also by what decisions are or are not made	Two faces of power: Dahl's conception as well as structural power found in decision and non-decision making processes	Both explicit (Dahl) and implicit (structural)
(Clegg, 1989)*	Power is a process that may pass through distinct circuits of power and resistance; facilitative and dispositional power	Agency is something which is achieved by virtue of the organization	Facilitative and dispositional; tied to explanations of the key processes of modernity
(Dahl, 1957)*	Power measured by response; community power debate; mechanistic and behavioral; precision methodological focus; values: subordinated preferences	Power held by people but to be bargained; elites exist but are more disbursed; intentionality of agent not addressed	Open process of bargaining with people, leaders and decision-makers
(Foucault, 1977, 1979, 1980, 1986, 1988)*	"Interpret" strategies of institutional form and discursive practice; Flux and discontinuity; Shifting and unstable alliances	No single, originating and decisive center of power; pluralist	Ideologically based; institutionalized through surveillance and embodiment
(G. Klein, 1999)	Power is the ability to make use of knowledge	Personal abilities are sources of power utilized by the individual	Through utilization of personal abilities individuals make use of knowledge to influence, discern critical issues, and generate action
(Giddens, 1968, 1976, 1984)*	The capacity to achieve outcomes	"Duality" of power and structure: structuration theory	Tension between voluntaristic and deterministic positions

Table 8 Continued

Author	Concept of Power	Concept of Agency	Concept of Causality
(Hobbes, 1962) *	"What power is"; Rationalized account; "Legislator's" model of order – fix and serve power Continuous and orderly	Power held by people	Science and Monarch as authoritative origins of action
(Lukes, 2005) *	"Legislator's" model with sweeping narrative extending to others thoughts and consciousness; realist position	Three dimensions of power concerned with power per se moving away from the Community Power Debate	Moral philosophy based on interest replaces the view of a sociology of power. Liberal, reformist or radical perspectives shape analysis.
(Machiavelli, 2004) *	"What power does" "Interpret" strategies of power- shift for advantage; Flux and discontinuity; Shifting and unstable alliances	No single, originating and decisive center of power	Emphasis on "strategy" with an implicit "amoral" stance with a stress on the efficiency of means rather than the goodness of ends
(Marx, 1978a, 1978b) *	Order necessary but disorder exists in political economy; Ruling hegemony	Class struggle	Ideologically based; institutionalized through discursive articulations of meaning and their representation in practice

Table 8 Continued

Author	Concept of Power	Concept of Agency	Concept of Causality
(Parsons, 1967)*	Power facilitates the production of binding obligations within organizational settings	In a goal-oriented organization, power is directly derivative of authority	Analogous to money as circulatory media; symbolic legitimacy of power enables stable, recurrent, patterned and cooperative interaction between socialized actors
(Weber, 1978b)	Power is the ability to compel another to do one's will	Top-down rules and processes established by legitimate authority	Exercised through the routines of administration in both civilian and military officialdom

I use the typology of power found in Alford and Friedland (1992) which has its roots in Lukes (2005). Lukes' typology of power has strongly influenced the work of Alford and Friedland (1992), Gaventa (1980), Krieger (1983), Stepan (1978), and McEachern (1980). Each of the authors have acknowledged Lukes' contribution and "All of them deal with the way in which institutional ("systemic") power at the societal level shapes organizational ("structural") power and situational power and attempt to integrate observations of specific events and individual actions with other levels of analysis" (Alford & Friedland, 1992, p. 388). Evaluating the synthesized literature with the typology of power described highlights how the different conceptions of power, agency, and casualty lead to different descriptions about how power operates across systemic, situational, and structural contexts. Table 9 summarizes these differences.

Table 9 How Power Operates

Author	Systemic	Situational	Structural
(Bachrach & Baratz, 1962)		X	X
(Clegg, 1989)	X		X
(Dahl, 1957)	X	X	X
(Foucault, 1977, 1979, 1980, 1986, 1988)	X		X
(G. Klein, 1999)		X	
(Giddens, 1968, 1976, 1984)	X	X	X
(Hobbes, 1962)			X
(Lukes, 2005)	X	X	X
(Machiavelli, 2004)	X	X	X
(Marx, 1978a, 1978b)	X		X
(Parsons, 1967)			X
(Weber, 1978b)		X	X

Note that some authors address all three contexts in which power operates. In Table 9 I indicate the primary mode of operation that the authors emphasize. Foucault (1977, 1979, 1980, 1986, 1988), Giddens (1968, 1976, 1984), Lukes (2005), and Marx (1978a, 1978b) emphasize the importance of society in conceptions of power while Clegg (1989), Dahl (1957), and Machiavelli (2004) emphasize the importance of interests in their conceptions. The power to compel by either force or instrumentation is emphasized in Bachrach and Baratz (1962), Dahl (1957), Giddens (1968, 1976, 1984), Lukes (2005), Machiavelli (2004), and Weber (1978b). Klein's (1999) conception of power centers on the ability to use knowledge to compel. Most of the authors emphasized structural

dimensions – boundaries, dominance, communication, or geography – in their conceptions. Klein (1999), who focuses on the abilities of the individual, had less emphasis on structural elements.

LITERATURE ON INFLUENCE

In this section I synthesize and critique the literature on influence across the disciplines depicted in Figure 5. As with the literature on politics, I synthesized the literature by sub-categories that emerged from the review.

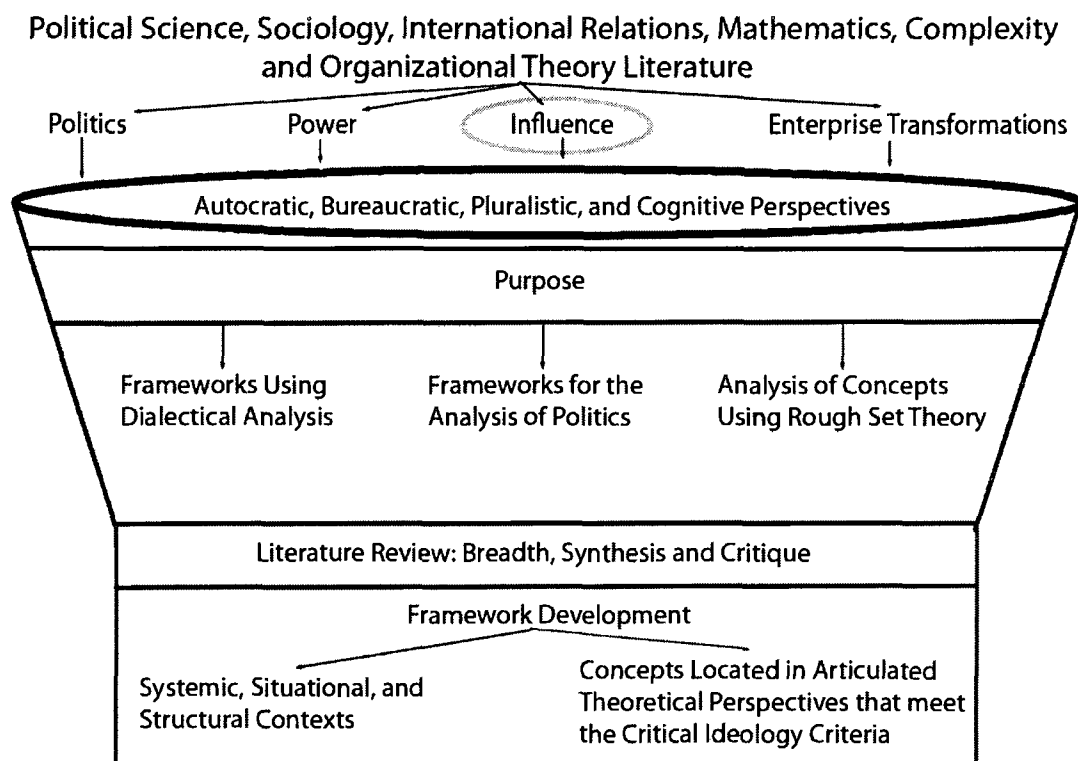


Figure 5 Synthesis of the Literature on Influence

Synthesis

Influence, like power, is a contested concept that is difficult to quantify. Handy (1993) distinguishes between power and influence while other authors use influence and power interchangeably. Power, for Handy, is seen as an enabler for the force of influence

whereby A modifies the attitude or behavior of B (Handy, 1993, p. 122). He describes five types of power: physical, resource, position, expert, and personal that can be associated with six methods of influence: force, exchange, rules and procedures, persuasion, ecology, and magnetism (Handy, 1993, p. 133). Power and influence have also been connected through the use of influence diagrams to help understand political processes within enterprises (Roos & Hall, 1980). Katz and Kahn (1996) claim power “refers to potential acts, rather than transactions actually occurring”; hence, power is the capacity to exert influence (pp. 219-220). In this conception, influence is broadly defined and includes “virtually any interpersonal transaction which has psychological or behavioral effects” (1966, p. 220). There are many popular books on influence. For example, Robert Cialdini (1993) describes six principles of ethical persuasion: reciprocity, scarcity, liking, authority, social proof, and commitment / consistency (p. x); Howard Gardner (2004) argues there are seven critical levers that can be used to change minds and Bacharach and Lawler (1980) advocate a conceptual model describing opportunities for influencing within organizations. This genre also includes methods and approaches to change management. Many popular books on influence target people in career fields such as sales and advertising; this research distinguishes between opinion and scholarly research incorporating the later into my research.

Influence, Identities, Rhetoric, and the Dialectic

In the section on politics above, I discussed the politics of identity as an area of active study that is related to my research. In this section, I explore the literature on influence and identities. The material overlaps with the material in the previous section, but the emphasis is different. This section is concerned with how influence and identities interact, the effect of the strength of identities in enterprise transformation efforts, and the role of rhetoric in enterprise transformations.

Enterprises that have strongly identified workforces are more inclined to experience a transformation paradox when undergoing radical change. Though a strongly identified workforce may mobilize people behind the transformation, “strong organization wide identification often blinds and potentially blocks the view of new possibilities” (Fiol, 2002, p. 653). Through existing doctrine and associated processes

and patterns of communication and language, individuals and groups within the enterprise come to understand who they are as reflected in their enterprise identity, who “we” are as an enterprise, and the processes, reward systems, and promotion criteria that comprise theories about the enterprise and create either a sense of belonging or alienation (Ashforth, 1998; Fiol, 2002; Hogg & Terry, 2000). Enterprise managers and leaders must balance between identities that create a sense of unity and solidarity and more loosely associated identities that allow new concepts, language, processes, and patterns of communication to emerge to create new possibilities for change.

Karl Weick (1995) explores the role of identities in enterprises using his concept of sensemaking. In sensemaking, “identities are constituted out of the process of interaction” (Weick, 1995, p. 20). Individuals and groups who live within enterprises experience both associating and disassociating behaviors that either threaten their identities or provide opportunities for change. What results is cooperation, frustration, or paradigmatic hegemony. There are some interesting ideas in Weick (1995) that are useful in conceptualizing the transformation paradox; these same ideas provide insights into how managers or leaders might influence identity construction in the enterprise transformation process. The first idea is reciprocal influence and the second is multiple selves. In the former, individuals act in accordance to one’s self – “a consistent, positive self-conception” and, at the same time, “the individual acts in accordance with the values, beliefs and goals of the enterprise” (Weick, 1995, p. 23). What Weick is describing is the power of theories over action, a theme emphasized in Alford and Friedland (1992) and in my research. For the second idea, Weick asks, “How can I know who I am until I see what they do?” (Weick, 1995, p. 23). He suggests that the interpretation of identities center on the self and not the environment – “What the situation means is defined by who I become while dealing with it or what and who I represent” (Weick, 1995, p. 24). He suggests that an understanding and acceptance of the fact there are multiple selves will reduce the chances of surprise and enable adaptable and flexible behavior. But yet again we are in a paradox as individuals fight to retain “consistency of one’s self-conception” (Weick, 1995, p. 24).

Fiol (2002) suggests that managers and leaders capitalize on this paradox. She recognizes that the dominant paradigm in enterprises and the researchers who study them

is oriented on solution development and the resolution of paradoxes – paradoxes violate logic and conflict with the desire for coherent and consistent theories (Fiol, 2002, p. 655). She suggests a paradigm shift with language at the center. Language plays a critical role as both the process and product of identity construction occur through the use of language. Fiol describes three phases in the transformation process: deidentification, situated reidentification, and identification with core ideology (2002, p. 657). In each of the phases, Fiol (2002) identifies rhetorical techniques to facilitate the construction and deconstruction of identities. Both intentional and unintentional trust building and breaking occur during this process. The process relies heavily on stretching and creating, valuing and devaluing new labels through negotiated discussion and debate (Fiol, 2002, pp. 663-664). In essence, Fiol (2002) is describing the importance of concepts (in this case, labels) and the dialectic process in enterprise transformations.

The concept and study of rhetoric goes back as far as ancient Greece. Scholars who study rhetoric either use an example such as Plato and Aristotle as a standard by which to judge current rhetoric or consider ancient concepts of rhetoric concerned the exploration of all forms of discourse – a broader conception of rhetoric than is found today (A. T. Cole, 1995). The study of political discourse has its roots in rhetoric (Chilton, 2004). Branches of political discourse studies include generative linguistics and cognitive linguistics. Critical political discourse analysis examines spatial, temporal, and modal structures of discourse: “However politics is defined, there is a linguistic, discursive, and communicative dimension” (Chilton, 2004, p. 4). While within much of the literature the meaning of the terms *rhetoric* and *dialectic* are virtually indistinguishable, Eemeren and Grootendorst (1992) draw some important distinctions below:

Rhetoric refers to the art of influencing an audience by effective speech and dialectic to the art of resolving differences by means of regulated disposition. Seen in a rhetorical perspective, it is, ultimately, always the audience that decides what is acceptable, whereas in a dialectical perspective the acceptability of a move also depends on whether it is indeed a constructive contribution to the resolution of the difference. One could, of course, put such external restraints on rhetorical acceptability that it is, in fact, identical to dialectical acceptability. Then the remaining differences between rhetoric and dialectic would mainly be a matter of procedure and emphasis. (p. 5)

Rhetorical analysis has been used to study different aspects of politics and influence within and external to enterprises. Enterprises that embrace multiple identities can use rhetorical analysis to gain competitive advantage in the market: the more ambiguous the resource, the higher the potential to shape the identity of the enterprise in deliberate ways (Alvesson, 1993; Sillince, 2006). The social construction of identity can involve rhetoric that 1) “present[s] an attractive nonsalient identity as a valuable resource,” “a firm-specific nonsalient identity as an inimitable resource,” or “a persistent nonsalient identity as a nonsubstitutable resource,” 2) “present[s] valuable resources as increasing the attractiveness of identity, rare resources and enabling claims of distinctive identity, firm-specific, inimitable resources as a central attribute of identity, and persistent, nonsubstitutable resources as an enduring attribute of identity” and 3) can be used to gain competitive advantage by suppressing nonsalient identities, disguising nonsalient identities as salient resources, and coupling salient resources to the salient identity (Sillince, 2006, p. 204). Rhetoric can also be used by leaders and managers to strengthen the commitment of enterprise members to multiple enterprise goals. Jarzabkowski and Sillince showed that top managers influence over commitment will be enhanced when they use internally consistent rhetorical forms that are grounded within the historical context in which they are invoked (2007, p. 1659). These findings are particularly relevant to enterprise transformations where identities, trust relationships, power structures, and enterprise goals are simultaneously being created and destroyed.

Linguistics and Cognitive Science

Influence and politics are inherently imprecise studies where misconceptions of language occur frequently. Consequences of misconceptions include lack of progress in fields of academic domains and lack of social progress through intolerance, conflict and dogmatism (Janicki, 2006). Cognitive style, cognitive complexity, and cognition are variables that are studied both in linguistics and cognitive science. The relationship between political beliefs and cognitive complexity is contested. For example, context theory advocates that political extremists think in a more complex and sophisticated way about politics than moderates, while value pluralism theory states extreme ideologies exhibit low levels of cognitive complexity. Other studies have shown that cognitive

frameworks that are built around ideological concerns are more responsive to strategically framed messages than value-framed ones (Veenstra, Sayre, Shah, & McLeod, 2008). In Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives, I develop the cognitive perspective further using Lakoff (2008), Smail (2008), and Cottam and Shih (1992) as primary texts.

Cognitive approaches have been used in research on decision-making (Busemeyer & Townsend, 1993), deterrence (Berejikian, 2002), psychology (McGraw, 2000), the study of organizations (Weick, 1995), politics (Rosati, 2000), and international relations (Cottam & Shih, 1992). Cognitive approaches include concepts of bounded rationality, cognitive rigidity, ideologies, and variations in cognition. Prospect theory advocates a political model based on the actual cognitive capacities of real-world decision makers instead of rational actor models. In terms of theoretical perspectives, researchers who advocate prospect theory may come to different conclusions than those who develop rational actor models. While it is beyond the scope of this research to compare the differences, I suggest that the dialectic between both may reveal insights into politics not revealed by a singular approach.

There is a strong relationship between ideologies, cognition, and identities. Ideologies have been defined as the social cognitive basis for the identity of a social group (van Dijk, 2006). Van Dijk (2006) describes ideologies as:

...articulated by fundamental categories about a group's identifying characteristics, actions, aims, norms and values, relations to reference groups, and resources. Ideologies control the other social representations of groups, such as their knowledge and attitudes, and indirectly the mental models group members form when engaging in concrete social practices, as well as discourse. (p. 728)

In Chapter III I discuss my assumptions behind how I view cognition and conceptualization, and how these assumptions are related to my research.

Political Means of Influence

Mintzberg describes several political means of influence. Seemingly powerless insiders have won political games through sheer political will and skill – their capacity to

work, their political skills, and their will to act (Mintzberg, 1983, p. 183). Influence can also occur through legitimate authority: the power of authority, ideology, or expertise. Mintzberg (1983) describes these three powers: “With authority, one sometimes need only give an order to get something done; with ideology, things tend to happen by themselves; and in many cases the player who has technical expertise can easily come to dominate those who do not” (p. 184). Other forms of influence lie in privileged information and access to information, gatekeeping, access to influential individuals or groups, and the capability to exploit legitimate systems of influence (Mintzberg, 1983, pp. 184-186). There are many examples of these types of influence to be found within Mintzberg (1983):

A group of analysts, for example, promotes a technocratic system not because it is good for the organization but because it extends their own power. Similarly, a CEO upholds the organization’s ideology in order to enhance his own status as the true guardian of it. Experts-medical practitioners in hospitals, staff engineers in manufacturing-distort cost-benefit analyses in order to hoodwink managers into buying unnecessary equipment that gives them more influence. And managers, in turn, flaunt their authority in order to extend their control over the operators or staff personnel, just as the operators themselves flaunt the authority they have over the clients. In all these cases, legitimate power is used illegitimately, that is, politically. (pp. 186-187)

Table 10 depicts the internal influencers within an enterprise and their “play of power” (Mintzberg, 1983, pp. 232-233). Mintzberg locates these plays of power within twelve propositions that continuously combine and pulse representing politics and power in enterprises (Mintzberg, 1983, pp. 219-235).

Political means of influence may also include propaganda. Propaganda is a form of influence based in large part on Pavlovian psychology. Pavlov distinguishes between two different types of stimuli. The first level of stimuli is concerned with the application and effect of direct stimuli on both humans and animals while the second level is characterized by weaker and more complicated qualities of conditioning (Meerlo, 1956, p. 46). Pavlov focused his research on the first level of stimuli while Stalin focused on the second level. Stalin built on Pavlov’s theory with Engel’s theory which states that humans adapt in large part through language (Meerlo, 1956). In 1950 Stalin published work on the significance of linguistics for mass indoctrination which spurred research by

Russian psychologists, most notably Dobrogaev, to work in this area (Meerloo, 1956, p. 46). The main issues addressed by these researchers were: a) whether it is possible for a man to resist a government bent on conditioning him, b) an understanding of the capabilities of the individual to protect his mental integrity against the power of a forceful collectivity, and c) whether it is possible to eliminate every vestige of inner resistance (Meerloo, 1956, p. 46). Yet, by itself, propaganda is a limited form of influence. Lerner (1951) emphasizes these limits and writes that no matter how broad or intense the propaganda campaign, “propaganda does not change conditions, but only beliefs about conditions, and it cannot force people to change their beliefs but can only persuade them to do so” (p. 346). Or, as Mao Tse-Tung (1953) wrote, “All truths are obtained through direct experience” (p. 276). Special mental conditions are required to break through inner resistance:

In order to tame people into the desired pattern, victims must be brought to a point where they have lost their alert consciousness and mental awareness. Freedom of discussion and free intellectual exchange hinder conditioning. Feelings of terror, feelings of fear and hopelessness, of being alone, of standing with one’s back to the wall, must be instilled. (Meerloo, 1956, p. 47)

In Western conceptions of enterprise transformations rarely is propaganda used to such extremes. However, as multi-national enterprises live within the context of the rules, regulations, and cultures of states, understanding these extreme forms of propaganda and associated politics may be useful to leaders and managers of transformational efforts.

Table 10 Internal Influencers and their Play of Power (adapted from Mintzberg, 1983)

	Chief Executive Officer	Line Managers	Staff Analysts	Support Staffers	Professional Operators	Unskilled Operators
Their role in the Internal Coalition	Overall management of it	Management of its individual units	Design and operation of its systems of bureaucratic control and adaptation	Indirect support of its operating functions	Provision of its operating functions	Provision of its operating functions
The goals they favor	Survival and growth	Growth above all (of units and organization), survival, balkanization	Bureaucratization, economic efficiency, perpetual but moderate and well-regulated change, professional excellence	For professional staff: collaboration, perpetual but moderate change, professional excellence; for unskilled staff: protection of social group	Autonomy, enhancement of specialty, professional excellence, mission	Protection of social group
Their prime means of influence	Authority (personal and bureaucratic), privileged knowledge, privileged access to the influential, political skills, sometimes ideology as well	Authority (decreasing as descend hierarchy), privileged information, political skills, sometimes expertise	Bureaucratic controls, expertise	Expertise (for professional staff), political will (for unskilled staff, when act in concert)	Expertise	Political will (when acting in concert)

Table 10 Continued

	Chief Executive Officer	Line Managers	Staff Analysts	Support Staffers	Professional Operators	Unskilled Operators
Their main reasons for displacement of legitimate power	Maintain personal power	Distortions in objectives, suboptimization, direct links to external influencers	Means-ends inversion, direct links to external influencers	Suboptimization, means-ends inversion, direct links to external influencers	Means-ends inversion, direct links to external influencers	Group means-ends inversions
Their fields of play of internal power	Decision making	Decision making, advice giving, and execution (with respect to upper levels)	Advice giving	Advice giving	Decision making, execution	Execution
Their favorite political games	Strategic candidate, counterinsurgency	Sponsorship, alliance and empire building, budgeting, live vs. staff, strategic candidate, rival camps, sometimes lording, insurgency, and Young Turks	Expertise, line vs staff, strategic candidate, sometimes whistle blowing and Young Turks	Expertise, strategic candidate (for professional staff)	Expertise, strategic candidate, sometimes Young Turks	Insurgency, lording, whistle blowing

Critique

The review of the literature on influence yielded insights into the power of dialectic for leaders and managers of enterprise transformation. For a given situation, issue, or problem the dialectic reveals areas of conflict and cooperation; a skillful leader or manager will artfully use the dialect to create more areas of cooperation. Rhetoric is another useful tool – through the manipulation of enterprise identities and associations with individuals and groups, new identities can be constructed as part of the transformation process. The evidence from the literature suggests that rhetoric in this form is effective in enterprises with strong top-down hierarchies. In the extreme cases exemplified by Stalin and Hitler, rhetoric, propaganda, and conditions to break down the mental integrity of the subjects are used to “tame” people into desired patterns of communication and behavior. In less extreme cases, rhetoric is used to deliberately associate and disassociate value and devalue identities within and external to the enterprise using the tools of marketing and personal charisma. Lacking the latter, rhetorical action moves closer to totalitarian forms of manipulation. Transformations that involve more pluralistic conditions are more suited for the art of the dialectic as opposed to rhetoric because of the importance of stakeholder buy in and stakeholder desires to be part of the solution. Within the theoretical framework developed in this research, attitudes towards participatory behavior and individualism are used to provide the researcher with insights into the conditions under which rhetoric or the dialectic should be used.

A word of caution should be noted regarding labeling or branding. When labels are to be applied to “the other,” care should be taken to understand the theoretical perspectives at play; left unexamined, labeling may result in unintended consequences. For example, Mona Harm and Reinoud Leenders (2005) analyzed the political perceptions created by the United States and Israel who labeled Hizbollah as a terrorist organization and a “Lebanonised” political force to motivate public support against the organization – a conceptualization the researchers found inferior to Hizbollah’s own political conception. They found the enterprise of Hizbollah is comprised of a variety of institutions that have been adapting and elaborating to establish an interrelated and

religious and political framework with institutionalized meanings and values disseminated daily among constituents (Harb & Leenders, 2005). Hence, the labels applied to Hizbollah were both misleading and incapable of grasping the complexity of the Hizbollah enterprise (Harb & Leenders, 2005).

In this research I treat theoretical perspectives as ideologies. The literature review showed that the relationship between ideologies, cognition, and identities is intertwined. While each theoretical framework can be considered as a cognitive framework of sorts, I choose to develop a separate cognitive theoretical perspective that uses many of the recent developments in cognitive science and neuroscience. Cognitivists who hold this particular theoretical perspective are more sensitive to reflective debate using narratives and stories as elements of influence than their counterparts. I develop this perspective further in Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives.

The tactical aspects of political behavior, such as found in Mintzberg (1983), will not be addressed in the development of the framework. They represent potential actions where I am more concerned with describing potential points of contention and cooperation. The conditions under which propaganda might be effective in enterprise transformation efforts are to some degree specific to the enterprise and stimulus studied. Yet there are some dimensions of the framework that suggest potential conditions. For example, in the dimension of fear, each theoretical perspective has its own conception regarding the ability of groups and individuals to make choices. In an extreme case of an autocratic perspective, the severe penalties imposed by pre-Communist Chinese autocrats significantly reduced the potential for political action outside of political mandates while in a less severe autocratic theoretical perspective, Gorbachov's doctrine of freedom of choice empowered significant political action (Cottam & Shih, 1992, p. 136).

LITERATURE ON ENTERPRISE TRANSFORMATIONS

In this section I synthesize the literature on enterprise transformations that is related to the five focus areas described in Figure 6 below. There was a significant amount of literature concerned with knowledge and internet technology management. I chose works where the analysis was less dependent upon technical solutions and

considered multiple levels within the enterprise. Material on group dynamics was similarly reduced to works that were more holistic than small group settings and goal-setting agendas. The latter was an important distinction as emergence is a strong characteristic in enterprise transformations; which goals are set is part of the dialectic process.

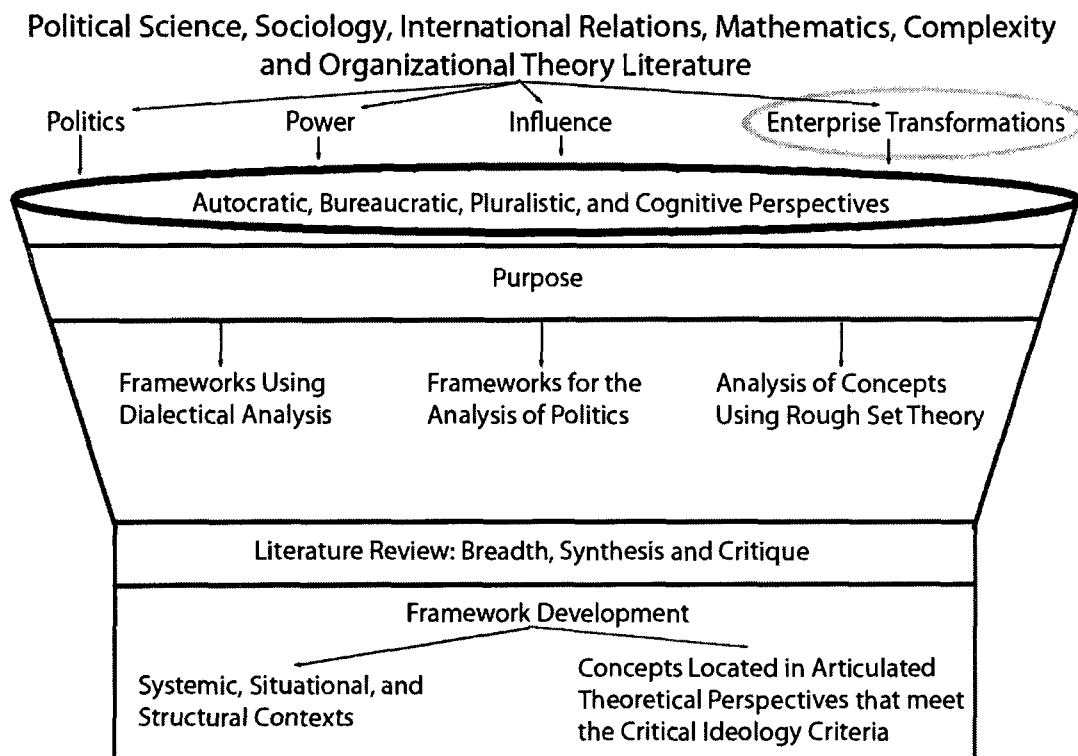


Figure 6 Synthesis of the Literature on Enterprise Transformations

Synthesis

There is no universally accepted definition of *enterprise*. Enterprises can be legal entities, the modern state, a business unit, a set of multinational business units, a geographically defined center of business operations, or even the business operations and processes behind the production of Rolling Stones concerts (Markus, Tanis, & Fenma, 2000, p. 43; Weber, 1978b, p. 1394). The Oxford English Dictionary defines an enterprise as “A commercial or industrial undertaking, [especially] one involving risk; a firm, a company or business” (Oxford, 1989). In addition, government agencies are enterprises and indeed often reference themselves as such (AirForceTimes, 2008; Army,

2008; DoD, 2006, p. 1; HLS, 2008; Marines, 2007, p. 29; Navy, 2008). Max Weber (1978a) defined an enterprise as “continuous rational activity of a specified kind” differentiating it from a formal organization as “an association with a continuously and rationally operating staff” (p. 52). The ambiguity of the term *enterprise* means that problems of enterprise transformation are plagued by issues of boundary definition and multi-level analysis. The theoretical framework developed in this research is intentionally sensitive to multiple levels of analysis and multiple perspectives. The domain of analysis is bounded through the process of applying the theoretical framework; hence, a broad encompassing definition of enterprise will be used: an enterprise is an institutional undertaking involving risk (Oxford, 1989). In this paper *enterprise transformation* is defined as a process that seeks to change the status quo of an existing enterprise. However, this change is “not just routine change but fundamental change that substantially alters the set organizations’ relationships with one or more key constituencies, e.g., customers, employees, suppliers, and investors” (Rouse, 2005, p. 279).⁸

In previous sections I emphasized the importance of the property of relations in politics and power. This property of relations is significant in explanation of how enterprises accommodate change. Ehrhard’s (2000) study on weapons innovation describes his undertaking as one that examines human organizations and how they implement change. Ehrhard (2000) writes: “In the broadest sense, it explores the interaction between man and technology when a potentially superior system threatens to disrupt organizational norms. More narrowly, this is a study of how military organizations and weapon systems reach accommodation in a world where man exercises control, but only machines evolve” (p. 1). In enterprise transformations politics is largely about humans and their accommodation of stimulus which motivates fundamental change. As Ehrhard (2000) writes in the context of a concrete example:

An innovative weapon system causes a military service to contemplate self-induced organizational pain with the possibility of a payoff. The services know that, like a writer struggling with new word processing software, they will go through a period of pain before they realize

⁸ See footnote 6.

increased capability. Confidence in a weapon system comes from precedent, and by definition, the innovative weapon system lacks precedent. (p. 8)

Enterprise transformations inherently lack precedent, especially transformations that are concerned with positioning for future markets or achieving future competitive advantage.

The process of enterprise transformation has an interdependent relationship with market forces. North (2005) provides a view of transformation, or institutional change, as seen through the lens of an economist. He describes five propositions central to institutional change (North, 2005, p. 59):

1. The continuous interaction between institutions and organizations in the economic setting of scarcity and hence competition is the key to institutional change.
2. Competition forces organizations to continually invest in skills and knowledge to survive. The kinds of skills and knowledge individuals and their organizations acquire will shape evolving perceptions about opportunities and hence choices that will incrementally alter institutions.
3. The institutional framework provides the incentives that dictate the kinds of skills and knowledge perceived to have the maximum pay-off.
4. Perceptions are derived from the mental construct of the players.
5. The economies of scope, complementarities, and network externalities of an institutional matrix make institutional change overwhelmingly incremental and path dependent.

Yet North recognizes the problem of politics, “The wide gap throughout history between intentions and outcomes reflects the persistent tension between the scaffolds that humans erect to understand the human landscape and the ever changing ‘reality’ of that landscape” (2005, p. ix). Arthur (1994) argues that the type of rationality assumed in economics—perfect or deductive rationality—breaks down for two reasons. The first reason is that human rationality is bounded hence it cannot deal beyond a certain level of complexity (Arthur, 1994, p. 406). The second reason for this breakdown is the unreliability of other agents to act in a perfectly rational way. Arthur (1994) writes:

...agents cannot rely upon the other agents they are dealing with to behave under perfect rationality, so they are forced to guess their behavior. This lands them in a world of subjective beliefs, and subjective beliefs about subjective beliefs. Objective, well-defined, shared assumptions then cease to apply. In turn, rational, deductive reasoning (deriving a conclusion by perfect logical processes from well-defined premises) itself cannot apply. The problem becomes ill-defined. (p. 406)

Arthur further suggests that agent-based models may provide some insight into reasoning in complex situations.

Bureaucratic perspectives based in market language tend to use rational and deductive approaches to identify and manipulate variables and attributes for the purpose of prediction and control (O'Donnell, 2007, p. 115). The use of market language itself does not necessarily imply a bureaucratic perspective and indeed Wohlgemuth (2005) argues market competition is more “deliberative” than politics. Under market competition, information is spontaneously created, disseminated, and tested which generates more information about available social problems that might be addressed, the comparative performance of existing and proposed solutions as well as information about people’s preferences, ideas, and expectations (Wohlgemuth, 2005, p. 84). I could not agree with him more, but he describes an ideal market that does not exist and we are left with the necessity of political discourse and analysis. According to Habermas (1996a), political discourse “steps in to fill the functional gaps when other mechanisms of social integration are overburdened” (p. 318). Habermas (1996a) argues, in what is a position in critical theory, for the “ideal speech situation,” “domination-free discourse,” and “deliberative communities” since markets fail to meet the social needs of its members (Wohlgemuth, 2005, p. 84). Yet Habermas (1996a) also describes an ideal situation that does not exist. Wohlgemuth (2005) provides a Hayekian response to Habermas. He argues that excessive mechanisms overburden politics and public deliberations making them unresponsive to changing environmental conditions. Between the reduction of burdensome mechanisms and reorganization of aspects of the political system, market processes can be opened up to their optimal deliberative states (Wohlgemuth, 2005, p. 84). The degree of mechanization and rule-setting in solutions to specific enterprise transformation problems is ripe for the Wohlgemuth-Habermas debate. However, the necessity for political discourse and analysis within enterprises is not well acknowledged

in bureaucratic and autocratic approaches. Max Weber (1978a), who is often noted as the father of modern bureaucratic thought, writes:

Consistent bureaucratic domination means the leveling of “status honor.” Hence, if the principle of the free market is not at the same time restricted, it means the universal domination of the “class situation.” That this consequence of bureaucratic domination has not set in everywhere proportional to the extent of bureaucratization is due to the differences between possible principles by which polities may supply their requirements. However, the second element mentioned, calculable rules, is the most important one for bureaucracy. The peculiarity of modern culture, and specifically of its technical and economic basis, demands this very “calculability” of results. When fully developed, bureaucracy also stands, in a specific sense, under the principle of *sine ira ac studio*. Bureaucracy develops the more perfectly, the more it is “dehumanized,” the more completely it succeeds in eliminating from official business love, hatred, and all purely personal, irrational, and emotional elements which escape calculation. (p. 975)

Within the literature on organizations there is a multitude of typologies of organizations or, more broadly, enterprises. These approaches are useful in broadening perspectives of enterprises however they are also limited because they over-specify and over-simplify the complex situations that occur in organizations leaving analysis vulnerable to cross-level and ecological fallacies. The images of organization are shaped by concepts derived from individual world views, values, interests, and historic narratives, hence intentional designs based on these typologies are limited in their effectiveness. The seminal work on organizational typologies is arguably *Morgan’s Images of Organizations* (1998). Additional descriptions of organizational typologies are found in Katz and Kahn (1966), Skyttner (2002), Stacey (2003), March (1965), and Schein (2004), as well as meta-typologies in Kilman (1983) and Jurkovich (1974).

Within and external to enterprises, the transformation process involves shifting boundaries. Defining the boundaries and span of the enterprise that is to be transformed is itself a political process. Membership in groups or communities defines privileges, social and economic rights, access, information flow, knowledge and, of course, influence and power. Stone writes, “The most highly contested and passionate political fights are about membership” (2002, p. 19). She explains that it is important to distinguish between physical and political membership as well political and cultural communities. The boundaries define what knowledge is pertinent as well as identifies the

people who generate the knowledge (R. L. Flood, Romm, Norma R.A., 1996, pp. 17-18). In light of the significance of boundaries in politics, it is surprising that a political mode of analysis in enterprise transformation is not more dominant.

There is a plethora of literature on the structural aspects of enterprise transformation, particularly in the area of knowledge management and internet technology. As this research is theoretical, the design of communications and its effect on participation, legitimacy, and dominance relationships will be addressed at a very high level. Examination of specific designs or political challenges requires specificity about the enterprise and actors in question, which is beyond the scope of this research.

Rouse writes “Transforming an existing enterprise involves dismantling the ‘as is’ enterprise to create the ‘to be’ enterprise, while also keeping the enterprise running, keeping customers satisfied, and yielding acceptable financial results” (Rouse, 2006a, p. 6). He categorizes transformations into three archetypes: transformed value propositions, transformation via acquisitions and mergers, and transformation via new value propositions (Rouse, 2006a, pp. 4-8). This focus on “why should” rather than “how to” elevates the humanistic elements of the enterprise transformation.

I discussed some of the works on organizational change in the previous paragraphs and will summarize some of the key issues and approaches in this area. The literature on organizational change ranges from incremental and planned change to transformational change. Authors such as Argyris (1994), Argyris and Schön (1978, 1996), Schein (2004), Senge (2006), and Argote (2004) emphasize the importance of organizational learning in organizational change. Schein (2004) examines the contradictions of stability and learning in change and the role of the leader in creating a learning culture (p. 363-73). His ten “characteristics of a learning culture” can be mapped to the twelve-dimensional theoretical framework developed in this research. Instead of comparing different theoretical perspectives as I do in my research, he examines his ten characteristics across a spectrum of possible descriptions. For instance, in the framework I develop I examine whether each perspective sees human nature as fixed or changing. In the table developed by Schein (2004), he states that a learning organization holds the view that human nature is mutable and not fixed (p. 365). The problem with Schein’s approach is that it holds the organization as an amorphous and

homogenous entity that can be shaped, with the right leadership, into a single theoretical perspective. But the reality is that as the world becomes more interconnected, the likelihood of the continued existence of multiple theoretical perspectives is high – politics and the need for dialectical approaches will always exist. Handy (1993) writes of the persistence of differences in organizations:

It would be odd if it were not so, and foolish of anyone to pretend that in some ideal world those differences would not exist. Indeed, those differences are probably essential if the community is going to continue to adapt to the world around it, to change, in other words, and to go on changing or developing forever. Change is a necessary condition of survival, be we individuals or organizations, and differences are a necessary ingredient in that change, that never-ending search for improvement. The challenge for the manager is to harness the energy and thrust of the differences so that the organization does not disintegrate but develops. Without politics we would never change and without change we would wither and die. (p. 291)

Senge (2006) argues that for an organization to excel, it must tap into “people’s commitment and capacity to learn at all levels in the organizations” (p. 4). He provides eleven laws of the “fifth discipline” to guide managers through the process of creating a learning organization. Personal mastery, mental models, shared vision, and team learning are components of building the learning organization. The strategies he develops are useful to dealing with politics in enterprise transformations, but they do not address how one might analyze politics in enterprise transformations. Insights in how to analyze politics is provided in books such as *Enterprise Transformation: Understanding and Enabling Fundamental Change* (Rouse, 2006c). In this book, authors examine specific areas and case studies such as manufacturing, logistics, enterprise IT, and six-sigma followed by recommended strategies to enable transformation.

Argyris and Schön (1978) promote a system of double loop learning to “help individuals unfreeze and alter their theories-of-action so that they, acting as agents of the organization, will be able to unfreeze the organizational learning systems that also inhibit double-loop learning” (p. 4). The authors describe what a learning organization ought to look and act like in terms of single-loop, double-loop, deuteron-learning, and the good dialectic. Argyris and Schön (1978) define these components of organizational learning:

- Single loop learning: members of the organization respond to changes in the internal and external environments of the organization by detecting errors which they then correct so as to maintain the central features of organizational theory-in-use. (p. 18)
- Double-loop learning: those sorts of organizational inquiry which resolve incompatible organizational norms by setting new priorities and weighting of norms, or by restructuring the norms themselves together with associated strategies or assumptions. (p. 24)
- Deutro-learning: occurs when the organizations reflect on previous contexts of learning. (p. 27)
- The “good dialectic” is the authors’ term to describe processes of organizational inquiry which take the form of single- and double-loop learning and where both single- and double-loop learning meet the standards of high-quality inquiry. (p. 144-46)

Organizational change is also addressed by rational views of organizations in which change is managed through the accomplishment of specific strategic objectives. Balanced scorecard, six-sigma, total quality management, and strategy maps are just a few of the tools and methods used to manage change in organizations in this view. These modes of thinking about organizational rationality are prevalent and “assume a framework of stable, compatible objectives for which rational inquiry consists of choosing the most effective means” (Argyris & Schön, 1978, p. 147).

Critique

The shifting states of cooperation, competition, and frustration within enterprises leave positivist approaches, methods, and instrumentation based on rational actor models lacking in results. In Chapter III I explore issues with complexity and the shifting states in the context of foundational mathematics. The behaviors are described in broad categories supporting the theoretical development behind the framework. That is, there are analogous states in mathematics to the systemic, situational, and structural contexts found in enterprise transformations.

The literature on organizational change provides useful strategies for how to create a learning organization that may respond well to change, but provides little insight into how to analyze politics in enterprise transformations. Case studies provide insights into what politics may be at work given a specific situation. In the cases examined, the theoretical perspectives described would map into the twelve dimensions of the theoretical framework developed in this research.

The work of Ehrhard (2000) highlighted in this section, as well as the work of Goldman and Eliason (2003) and Rogers (2003), emphasizes the difficulty of introducing new concepts into old paradigms of thinking. New concepts require new vocabularies, patterns of communication, and doctrine; it is paradoxical to believe that these new constructs can emerge from the status quo. The debate between Habermas (1996a) and Wohlgemuth (2005) demonstrates the value of debate between theoretical perspectives. The positions they debate extract salient issues from reality in different ways, but in truth, the shifting states within and external to enterprises encompass time periods where one explanation may be more applicable than other – explanations about reality require more than just a single theoretical perspective.

SUMMARY: CONTESTED AREAS AND INCLUSION/EXCLUSION

CRITERIA

As mentioned before, literature on qualitative research methods and critical ideology guide the literature review. Works were chosen if they were applicable to the five focus areas identified earlier in this chapter. The table below summarizes key contested areas in the literature on politics and identifies what is included and not included in the scope of this research. This table summarizes the contested literature as it relates to the development of the theoretical framework and includes literature used in Appendix C: Theoretical Framework Construction.

Table 11 Contested Areas and Inclusion/Exclusion Criteria

Works	Contested Area	Included / Excluded
(Buchanan & Badham, 1999; Chao, Wenquan, & Liluo, 2006; Droy & Romm, 1988; Hu & Zuo, 2007; Ferris & Kacmar, 1991, 1992; Mintberg, 1983; Liefoghe, 2001; Voyer, 1994; Ashforth & Lee, 1990; Buchanan, 2008; Stone, 2002; Kinghts & McCabe, 1998; Hochwarter, Kacmar, Perrewe, & Johnson, 2003; Poon, 2006, Parker, Dipboyle, & Jackson, 1995)	Perception of politics: conditions under which political behavior might occur, types of political behaviors and their consequences, and antecedents and consequences of individuals perceiving their environment as political is contested.	Much of the contested literature is enterprise, situational, and researcher specific, hence not included in the development of the framework. Related research on values is included. The values literature used in the framework used rigorous empirical studies over a wide range of subjects.
(Pye, 1965; Verba, 1965; Schein, 2004; Senge, 2006; Argyris & Schöen, 1978, 1996; Argyris, 1994; Argote, 2004)	Whether enterprises are best understood as adaptable organizations that need to be designed to learn or that organizations are best understood and changed in terms of means-ends is contested.	Within the literature on politics, culture, and organizational change there are psychological, sociological, and organizational approaches. All three approaches are accounted for in the dimensions in the theoretical framework.
(Jost & Major, 2007; Mulligan, 2006; Mintzberg, 1979, 1980, 1983; Verba, 1965; Habermas, 1996b; Froomkin, 2003; Alford & Friedman, 1992)	How legitimacy is established, whether legitimacy has a moral component or is based on fear and perceptions, and legitimacy as social contract is contested.	Legitimacy is one of the dimensions in the theoretical framework. The contested views needed representation in the final theoretical framework. Accordingly and using Alford and Friedman (1992), these perspectives are distinguished by who has the ability to act and what counts as truth.
(LaPalombara, 1969; Pye, 1965, Alford & Friedland, 1992; Weber, 1947, 1978; Marx, 1978a; Kieser, 1994; Kratochwil, 2006; Bendix, 1977)	Whether a stable political environment is a prerequisite to economic and social stability is contested. Other views include ideological advancement, modern versus traditional systems, and hybrid forms.	The contested literature is systemic in nature and concerned with the historic narrative of what constitutes political development. In the theoretical framework, this is taken into account. The dimension "historic narratives" distinguishes perceptions of sources of change, process, "the whole," the external system, causation, and what counts as an empirical reference.
(Waltz, 2001; Guba & Lincoln, 2005; Terriff, et al., 1999; Alford & Friedland, 1992; Verba, 1965)	Whether human nature is constant or changing is contested.	In the dimension "world views" these two perspectives are distinguished within the theoretical framework.

Table 11 Continued

Works	Contested Area	Included / Excluded
(Thucydides, 1998; Nietzsche, 1969; Fu, 1993; Altheide, 2006; Weick, 1995; Rosen, 1994, 2005; Lord, 2008; Lakeoff, 2008)	The degree to which emotion affects politics is contested.	Fear is considered as a dimension within the framework and takes into account different perspectives of the epistemological argument, ambiguity, and humiliation.
(Pye, 1965; Lecours, 2000; Verba, 1965; Stone, 2002)	How identities are shaped and formed and the persistence of identities within cultures is contested.	The politics of identity are concerned with classification and hence boundaries. "Boundaries" is one of the dimensions within the framework.
(Mintzberg, 1993; Clegg, 1989; Pfeffer, 1981; Crozier, 1964)	Whether politics is premised on discretionary control (e.g., of resources) is contested.	The typology of power used in this research examines politics across systemic, situational, and structural contexts. Hence, discretionary control is one possible premise, but so are systemic dimensions such as values and historic narratives.
(Goldman & Eliason, 2003; Rogers (2003); Ehrhard, 2000; Milner, 2006; Kalathil & Boas, 2003)	How and by what means stimulus is accommodated in enterprises is contested.	The type of innovation or stimulus matters in the analysis. In this research, I consider the dimensions boundaries, dominance, and communications but do not make claims about the speed or effectiveness of a particular stimulus.
(Senge, 2006; Lowi, 2001; Habermas, 1994, 1990; Wohlgemuth, 2005)	Some economic theories take on an ideology that rationalizes states as irrational actors in an otherwise global capitalist system that self-corrects to manageable equilibrium (Lowi, 2001, p. 131)	In the theoretical framework, different perceptions on the relationship between politics and economics are not taken into account. What is accounted for is how each perspectives views values and interest in terms of cooperation or competition.
(Janicki, 2006; Veenstra, Sayre, Shah, & McLeod, 2008)	The relationship between political beliefs and cognitive complexity is contested.	This research does not consider this debate but instead develops a cognitive perspective that acknowledges the importance of the cognitive domain.

This table does not include different conceptions of power, agency, and causality which were covered in Table 8. Within each discipline there are schools of thought that are debated within the scholarly community. This research does not consider the validity

of each position but instead extracts dimensions and associated clarifying concepts that distinguish between different schools of thought as theoretical perspectives.

FRAMEWORKS USING DIALECTICAL ANALYSIS

In this section, I derive from the synthesis and critique in previous sections frameworks that use the dialectical analysis. I found a rich assortment of frameworks that are effective for explaining specific cases. In some cases, the theory behind the framework is well developed, in others, not quite so much. What follows from this section and the next section that examines frameworks for the analysis of politics is an overall critique of the frameworks discussed.

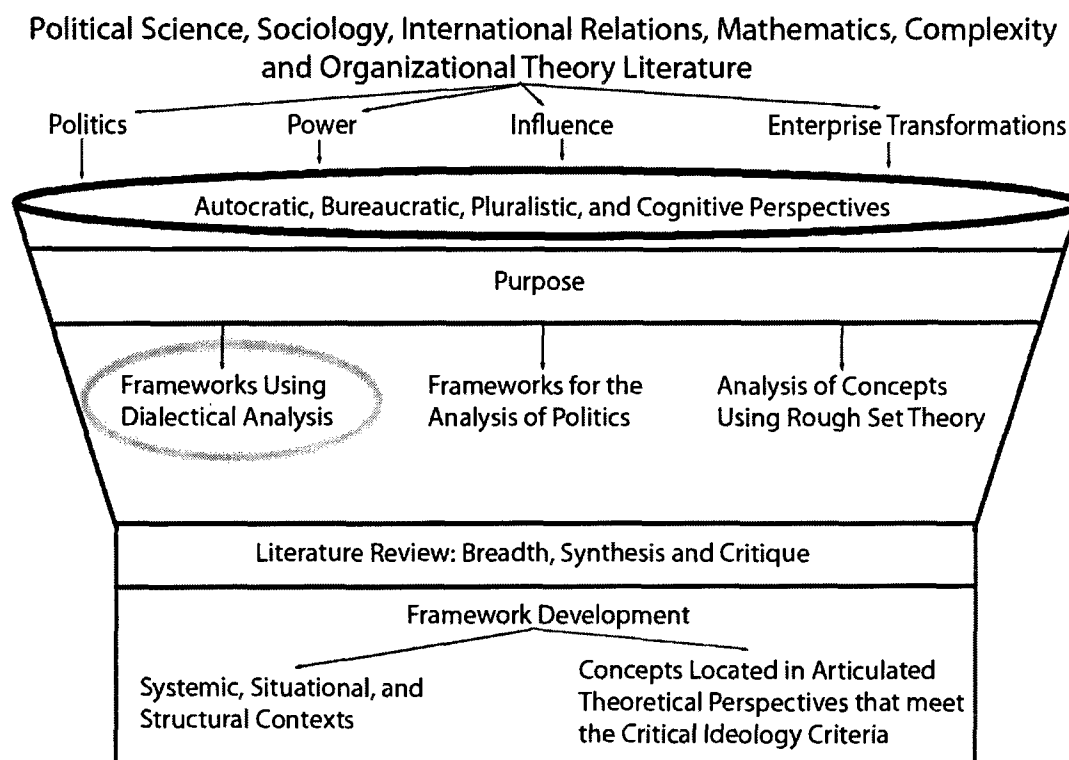


Figure 7 Synthesis of the Literature on Frameworks Using the Dialectical Analysis

Powers of Theory

In Alford and Friedland's *Powers of Theory: Capitalism, the State, and Democracy*, the authors develop a "synthetic framework" to construct a new theory of

state that is informed by pluralist, managerial, and class perspectives of the state: “Each perspective has something to offer to the understanding of the state: The pluralist perspective contributes to a partial understanding of the democratic aspect of the state; the managerial perspective contributes to an understanding of the state’s bureaucratic aspect; and the class perspective helps explain the state’s capitalist aspect” (1992, p. 3). In addition, each perspective offers a “primary level of analysis at which power operates” (Alford & Friedland, 1992, p. 7). Table 12 summarizes these views of power and perspectives (Alford & Friedland, 1992, p. 10).

Table 12 Power and Contradiction in Perspectives on the State (adapted from Alford & Friedland, 1992)

Level of Power	Theoretical Perspective		
	Pluralistic	Managerial	Class
<i>Situational power</i> Specific strategies of political action to influence government decisions	Voters and diverse groups compete for influence in political situations	Organizational elites use resources at critical junctures	Agents of capital and labor struggle in historical conjunctures
<i>Structural power</i> The internal organization of the state	The state is a highly differentiated mosaic of agencies and programs accessible to influence	The state is an autonomous, coercive, technocratic administration with legal authority, negotiating with private organizations	The state has distinctive forms that reproduces capitalist social relations
<i>Systemic power</i> The societal functions of the state	A consensual value system defines the boundaries of state action	A complex, changing society creates technical and resource constraints on the state	Capitalist tendency to economic and political crisis limits the hegemony of both state and capital
State Structure			
Contradiction in the state (functional versus political relations)	Tension between consensus and participation	Conflict between centralization and fragmentation	Contradiction between accumulation and class struggle
Central issue for the state	Governance	Elite capacity	Crisis
Central types of politics	Liberal and conservative	Reform and reactionary	Socialist and fascist

In this research, each concept emphasizes a particular level of analysis at which power operates which I set in the three contexts mentioned above: systemic, situational, and structural (Alford & Friedland, 1992, p. 6). Concepts that are concerned with a societal level of analysis are associated with systemic power, those concerned with

analysis at the level of the individual are associated with situational power, and concepts concerned with organizational analysis are associated with structural power (Alford & Friedland, 1992, p. 387). I build on the work of Alford and Friedland (1992) with an articulation of the constraints and characteristics of the domains of analysis for each of these contexts.

An example of how the author's analysis is used is provided below and compares critiques of the Reagan administration from both the *New York Times* and the *Washington Post*. Both articles are concerned with efforts to radically change welfare programs. The managerial perspective is described below (Alford & Friedland, 1992, pp. 403-404):

The *Times* editorial stresses the strategies of the elites, facing complex and difficult alternative policy decisions. The problems of administering a complex bureaucratic structure of block grants, local, state, and federal administrative agencies, and alternative private or public provision are the primary issues facing political elites. "President Reagan has a throbbing fiscal headache: the rising costs of Medicaid and Medicare." (But the subordinate elite is moving too fast). "Secretary Schweiker of Health and Human Services is planning change at a reckless pace." The head of a bureaucratic agency has the capacity to "plan change." The expansion of health programs paid for by the state was a "historic act of compassion." (The motives of the elites explain the policies of the state. And the goals and alternative means of achieving these goals are the main criteria to be used in assessing programs).

The elites, according to the authors, place an emphasis on cost, efficiency, and rationality. The *Post* editorial provides an example of a pluralist perspective on the same topic (Alford & Friedland, 1992, p. 404):

The *Post* editorial, by contrast, stresses the responsiveness of the state to public opinion and assumes that the democratic aspect of the state is primary. As the "volume of [government] activities grew and the taxes needed to support them mounted, so did the *feeling among taxpayers* that too much was being spent on things they would rather not buy." (The Reagan policies were a response to public opinion). But they went too far. "The *nation let the president know* in no uncertain terms that it places a high value on Social Security benefits." And the main problem for political leaders is to judge "*public reaction*." (The *Post* seems to approve of the massive budget cuts, with some programs then being restored in response to democratic public opinion).

In their analysis, Alford and Friedland (1992) point out that what is not said is as important as what is said. They explain that had the institutional structure as a whole

been part of the discussion, class perspectives would have been part of the debate. A class perspective editorial might discuss increasing military budgets or contrast capitalistic growth versus societal needs (Alford & Friedland, 1992, p. 404). Fundamentally, social and historical analysis must recognize that “Theories are simultaneously generalizations, paradigmatic models, and critical ideologies” and integrate these perspectives into the synthetic framework (Alford & Friedland, 1992, pp. 406-407).

In my analysis I replace the “class” perspective with a “cognitive” perspective that retains the idea of hegemony but understands that politics is in part a result of the tension between a mixed capitalistic and bureaucratic society. Researchers may argue that a Hayekian-like free capitalistic society may be more deliberative than politics (Wohlgemuth, 2005, p. 2005) but in reality, the tension between communitarian and universal views necessitates the establishment rules which create boundaries hence political discourse.

Canadian Nuclear Fuel Waste

Murphy (2001, p. 2001) uses insights from critical theory, post-modernism, and feminism to examine the problem of Canadian nuclear fuel waste in the context of developing future management strategies. She examines politics in a similar framework found in my research based on the work of Alford and Friedland (1992). Central to her thesis is the use of the systemic, structural, and situational typology of power reproduced in Figure 8 below.

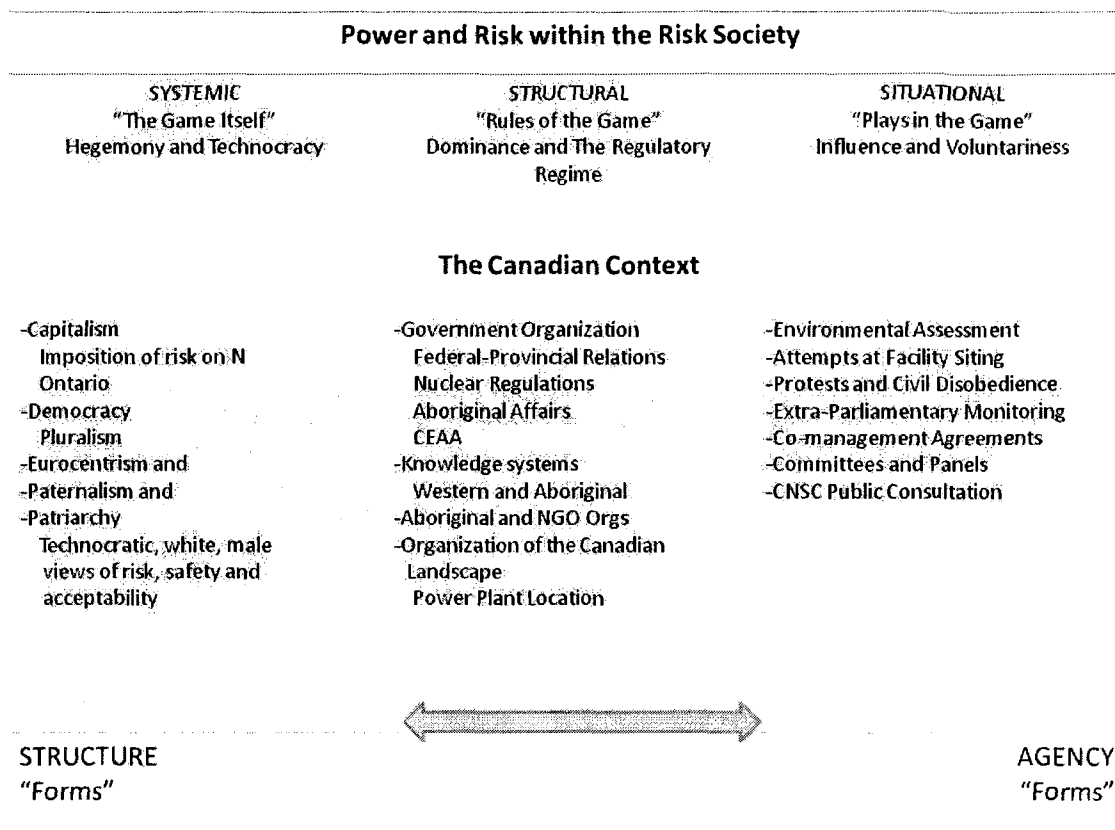


Figure 8 A Typology of Power (adapted from Murphy, 2001)

Murphy (2001) develops a theoretical framework and typology of power based on the literature on risk and siting⁹ to describe potential risk management approaches. Using a grounded theory approach, her analysis of empirical evidence which is based on forty-six questionnaires, concludes that building strong community involvement, even in controversial issues, helps to mitigate risk. When participants felt that their interests were not considered in decisions, "managers lose control of when and how latent controversies will surface" (B. L. Murphy, 2001, p. 270). She recommends a multi-faceted approach to the management of technological risk and uses the typology of power to operationalize a risk management model useful to empirical investigation (B. L. Murphy, 2001, pp. 270-271). Furthermore, she demonstrates "the way in which the narrow white, male, technocratic conception of truth is being demonopolised through the

⁹ In the literature concerned with nuclear sites, siting refers to the process of identifying, establishing and maintaining a site for nuclear waste.

rise of physical, value and policy uncertainty” (B. L. Murphy, 2001, p. 271) and calls for a “new risk management regime in which 1) social hegemony becomes less skewed, 2) the definition of problems and solutions are expanded, 3) the focus shifts to a process orientation rather than pre-determined solutions, 4) the regime is a multi-scaled, step-wise approach, and 5) the regime is flexible enough to incorporate local and temporal variations and unforeseen circumstances” (B. L. Murphy, 2001, p. 271).

Rational versus Market Perspectives

In *Policy Paradox: the Art of Political Decision Making*, Deborah Stone frames the main argument of her book as a debate between the rational or market perspective and the polis where the former has a focus on the individual, self-interest, and competition while the latter focuses on community, public interest, and cooperation and competition (2002). Stone (2002) examines the concepts of equity, efficiency, security, and liberty over these two theoretical perspectives. She then examines the nature of problem definition in politics (Stone, 2002). Stone (2002) states there are no fixed positions or fixed goals in the polis and the struggle is over which conception defines and governs policy:

In the polis, then, problem definition is never simply a matter of defining goals and measuring our distance from them. It is rather the strategic representation of situations. Problem definition is a matter of representation because every description of a situation is a portrayal from only one of many points of view. Problem definition is strategic because groups, individuals and government agencies deliberately and consciously fashion portrayals so as to promote their favored course of action. Dissatisfactions are not registered as degrees of change on some thermometer, but as claims in a political process. Representations of a problem are therefore constructed to win the most people to one’s side and the most leverage over one’s opponents. (p. 133)

Stone (2002) examines how strategic representations are formed and communicated through symbols, numbers, causes, interests, and decisions. These insights are valuable contributions to understanding how politics affects both systemic and situational arrangements. Institutionalizing changes in behavior is accomplished through inducements, rules, facts, rights, or powers, or put in the terms of my research, changes are institutionalized through effecting structural arrangements.

Unbounded Systems Thinking

The quote below is the opening paragraph of the first chapter, “The World That Was and Is No More,” in Ian Mitroff and Harold Linstone’s book *The Unbounded Mind: Breaking the Chains of Traditional Business Thinking* (1993). As I described in Chapter I, globalization is one motivation for the research undertaken.

In the past ten years, U.S. businesses have been challenged more seriously than in any previous period. This challenge is a direct response to the growing globalization of the world’s economy – as large and as powerful as the U.S. economy is, it is now more affected by the economies of other nations than ever before. Consequently, the context in which U.S. businesses now operates has changed so dramatically that it is forcing a radical reassessment and redesign of almost every aspect of the modern factory and corporation. (Mitroff & Linstone, 1993, p. 3)

The 2008 financial and security crisis is adequate evidence to support the validity of Mitroff and Linstone’s claims. The authors argue that if America is to remain competitive, it must produce, at all levels, students and executives who can challenge, critique, and replace assumptions about the way we do business that are no longer relevant for the complex real-world problems we face (Mitroff & Linstone, 1993, p. vii). Mitroff and Linstone (1993) write:

If the modern factory and business corporation are in effect organizational and social experiments for testing new ideas crucial to the production of quality goods that can compete worldwide, then we must examine in as systematic and comprehensive a fashion as possible the basis of these ideas. This examination is a central task of this book. (p. 4)

To accomplish their task, Mitroff and Linstone (1993) examine four ways of knowing: agreement, analysis or mathematical model building, the concept of Multiple Realities, and the concept of the Dialectic or the necessity of the analysis of Conflict (pp. 14-15). Mitroff and Linstone (1993) develop three theoretical perspectives; “The difference in perspectives forces us to distinguish *how* we are looking from *what* we are looking at. Each incorporates distinct sets of underlying assumptions and values” (p. 99). The three theoretical perspectives are the Technical Perspective, the Organizational or

Societal Perspective, and the Personal or Individual Perspective. These perspectives are represented in the table below.

Table 13 The Three Multiple Perspective Types and their Paradigms (adapted from Mitroff & Linstone, 1993)

	Technical (T)	Organizational (O)	Personal (P)
World view	Science-technology	Social entity, small to large, informal to formal	Individuation, the self
Goal	Problem solving, product	Action, stability, process	Power, influence, prestige
Mode of inquiry	Sense-data, modeling, analysis	Consensual and adversary	Intuition, learning, experience
Ethical basis	Logic, rationality	Abstract concepts of justice, fairness	Individual values / morality
Planning horizon	Far	Immediate	Short, with exceptions
Other characteristics	Looks for cause and effect relationship Problem simplified, idealized Need for validation, replicability Claim of objectivity Optimization (seek best solution) Quantification Trade-offs Use of averages, probabilities Uncertainties noted (on one hand...) Technical report, briefing	Agenda (problem of the moment) Problem delegated and factored Political sensitivity, loyalties Reasonableness Satisficing (first acceptable solution) Incremental change Standard operating procedures Compromise and bargaining Make use of uncertainties Language differs for insiders, public	Challenge and response Hierarchy of individual needs Filter out inconsistent images Need for beliefs Cope only with a few alternatives Fear of change Leaders and followers Creativity and vision by the few Need for certainty Personality important

The authors use Multiple Perspectives as a method used in Unbounded Systems Thinking (UST) (Mitroff & Linstone, 1993). Mitroff and Linstone (1993) avoid a rigorous description of UST except within the terms of the Multiple Perspective method:

...all problems, of all systems, can be construed as an opportunity and a challenge to perpetually enrich our knowledge of the world. Not every IS [inquiry system] is compatible with the personality of every problem-solver. How one views UST is thus, in part, dependent on the individual. People differ radically, one of the very points of the Multiple Perspective Concept. Some thus regard UST as a rich resource; others, as something to be avoided at all costs. (p. 110)

Mitroff and Linstone (1993) illustrate their ideas in the example of the 1984 Bhopal, India catastrophe. On December 2, 1984, highly toxic gas leaked from the Union Carbide (India) Ltd. (UCIL) plant resulting in the death of between 1,800 to 10,000

people and injury of between 200,000 and 300,000 people. The authors examine risk concerns from the Technical, Organizational, and Personal perspectives and analyze where the gaps in knowledge of the complex system were, misleading assumptions, and the interactions among these three perspectives. This analysis is represented in Table 14 and Figure 9.

Table 14 Risk Concerns Seen in Perspectives (adapted from Mitroff & Linstone, 1993)

Technical (T)	Organization (O)	Personal (P)
One definition of risk for all	Definition customized to organization or group	Individualized
Compartmentalizing	Compartmentalizing	Ability to cope with only a few alternatives
Data and model focus	Perpetuation of entity is the foremost goal	Time for consequences to materialize (discounting long-term effects)
Probabilistic analysis; expected value calculations	Compatibility with standard operating procedures (SOP)	Perceived horrors (cancer, AIDS, Hiroshima)
Statistical inference	Avoidance of blame; spread the responsibility	Personal experience
Actuarial analysis	Inertia; warnings ignored	Influenced by media coverage of risk (The China Syndrome)
Fault trees	Fear exposure by media; attempt stonewalling	Peer esteem (drugs)
Margin of safety design; fail-safe principle	Financial consequences	Economic cost (job loss)
Quantitative life valuations, cost-benefit	Impact on organizational power	Freedom to take voluntary risks
Validation and replicability of analysis	Threat to product line	Salvation; excommunication
Failure to grasp "normal accidents"	Litigious societal ethic	Influence of culture
Intolerance of "nonscientific" risk views	Reliance on experts, precedent	Ingrained views; filter out conflicting input
Claim of objectivity in risk analysis	Suppression of uncertainties	Opportunity to gain respect; fame

Bhopal: Catastrophe Making

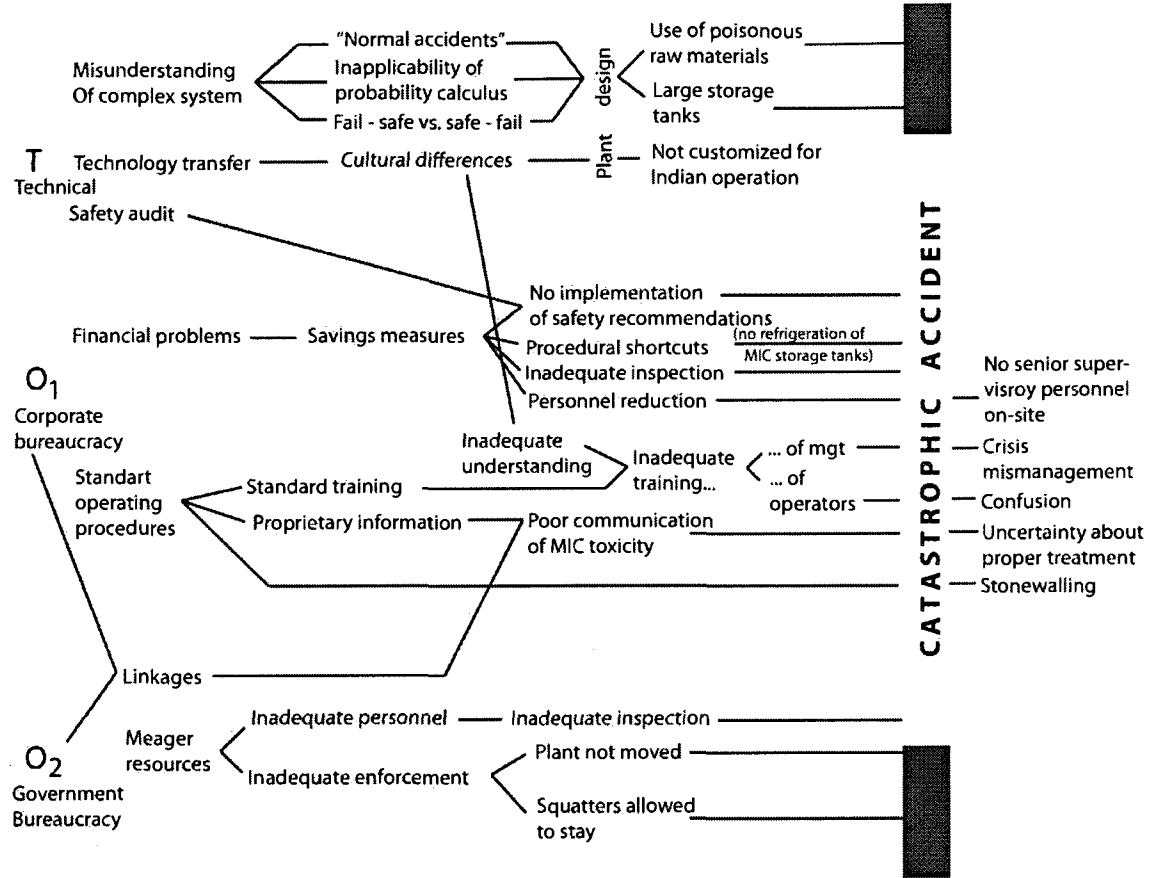


Figure 9 Interactions among Perspectives (adapted from Mitroff & Linstone, 1993)

In summary, the authors found that the “opportunities for human error increase exponentially as the size and complexity of the systems grow” (Mitroff & Linstone, 1993, p. 130). The errors are both unintentional and intentional and are amplified by culture differences often found in global enterprises. The authors provide concrete recommendations for each perspective ranging from decoupling sub-systems to incorporating cultural differences in practices.

Layered Model of Three Theoretical Perspectives

Scott (2003) examines organizational theory with a historical emphasis to develop a layered model that combines rational, natural, and open system perspectives. He provides the following definitions (Scott, 2003):

Rational System Perspective: Organizations are collectivities oriented to the pursuit of relatively specific goals and exhibiting relatively highly formalized social structures.

Natural System Perspective: Organizations are collectivities whose participants are pursuing multiple interests, both disparate and common, but who recognize the value of perpetuating the organization as an important resource. The informal structure of relations that develops among participants is more influential in guiding the behavior of participants than is the formal structure.

Open System Perspective: Organizations are congeries of interdependent flows and activities linking shifting coalitions of participants embedded in wider material-resource and institutional environments (pp. 27-29).

These contrasting paradigms are represented in the table below. The paradigms are examined across three axes:

- (1) The extent to which organizations are means-disposable, deliberately designed instruments for goal attainment-or value-impregnated, ends-in-themselves,
- (2) Whether organizations are self-sufficient, relatively self-acting, insulated forms or highly context-dependent, substantially constituted, influenced, and penetrated by their environment, and
- (3) The level of analysis employed, whether organizations are themselves viewed as contexts for individual actors, collective actors in their own right, or components in broader organized systems. (Scott, 2003, pp. 121-122)

Table 15 Dominant Theoretical Models and Representative Theorists: A Layered Model (adapted from Scott, 2003)

Levels of Analysis	Closed System Models		Open System Models	
	1900-1930 Rational Models	1930-1960 Natural Models	1960-1970 Rational Models	1970- Natural Models
Social Psychological	Scientific Management Taylor (1911)	Human Relations Whyte (1959)	Bounded Rationality March & Simon (1958)	Organizing Weick (1969)
	Decision Making Simon (1945)			

Table 15 Continued

Levels of Analysis	Closed System Models		Open System Models	
	1900-1930 Rational Models	1930-1960 Natural Models	1960-1970 Rational Models	1970- Natural Models
Structural	Bureaucratic Theory Weber (1968 trans)	Cooperative Systems Barnard (1938)	Contingency Theory Lawrence & Lorsch (1967)	Sociotechnical Systems Miller & Rice (1967)
	Administrative Theory Fayol (1919)	Human Relations Mayo (1945)	Comparative Structure Woodward (1965) Pugh et al. (1969) Blau (1970)	
		Conflict models Gouldner (1954)		
Ecological			Transaction Cost Williamson (1975)	Organizational Ecology Hannan & Freeman (1977)
			Knowledge-based Nonaka & Takeuchi (1995)	Resource Dependence Pfeffer & Salancik (1978)
				Institutional Theory Selznick (1949) Meyer & Rowan (1977) DiMaggio & Powell (1983)

The analysis in this work is rich in its treatment of concepts over environments, strategies, and structures. Power and pathologies are treated from multiple theoretical and historic perspectives. However, while the work is invaluable for explanations of historic and empirical data, it does not provide a holistic framework for analysis.

Essence of Decision

In Allison and Zelikow's *Essence of Decision: Explaining the Cuban Missile Crisis* (1999), the authors present three models and analysis that provide an example of what is known about the overlapping models of rational and political decision making. A summary table is included in Table 16. In this example, Model I represents an objective "market-driven" approach akin to the type of bureaucratic paradigm to be discussed in the paper. In this model, governments respond to optimal choice. The authors believe this model provides a powerful first approximation of the situation (Allison & Zelikow, 1999, p. 403). Model II incorporates an organizational view of the situation, where

actions resulting from organizational rigidities that would seem irrational in Model I are explained. Finally, Model III acknowledges that within decision-making structures, competing individual goals and objectives can play heavily into actions. The authors conclude that in their analysis of foreign affairs, “multiple, overlapping and competing conceptual frameworks” are necessary to examine international affairs (Allison & Zelikow, 1999, p. 401). They acknowledge this is an uncomfortable situation for practitioners. Similarly, in enterprise transformation, pluralistic, bureaucratic, and cognitive perspectives are necessary to examine politics in enterprise transformations.

Table 16 Summary Outline of Models and Concepts (adapted from Allison & Zelikow, 1999)

The Paradigm	Model I	Model II	Model III
Basic unit of analysis	Governmental action as choice	Government action as organizational output	Government action as political resultant
Organizing concepts	Unified National Actor The Problem Action as Rational Choice Goals and Objectives Options Consequences Choice	Organizational actors Factored problems and fractionated power Organizational missions Operational objectives, special capacities, and culture Action as organizational output Objectives-compliance Sequential attention to objectives Standard operating procedures Programs and repertories Uncertainty avoidance Problem-directed search Organizational learning and change Central coordination and control Decisions of government leaders	Players in positions Factors shape players' perceptions, preferences, stands Parochial priorities and perceptions Goals and interests Stakes and stands Deadlines and faces of issues Power What is the game? Action-channels Rules of the game Action as political resultant
Dominant interference pattern	Action – value maximizing means towards state's ends	Action (in short run) = output close to existing output Action (in longer run) = output conditioned by organization view of tasks, capacities, programs, repertories, and routines	Government action = result of bargaining

Table 16 Continued

The Paradigm	Model I	Model II	Model III
General propositions	Increased perceived costs = actions less likely Decreased perceived costs = actions more likely	Existing organizational capabilities influence government choice Organizational priorities shape organizational implementation Special capacities and cultural beliefs Conflicting goals addressed sequentially Implementation reflects previously established routines SOPs, programs and repertoires Leaders neglect administrative feasibility at their peril Limited flexibility and incremental change Long-range planning Imperialism Directed change	Political resultants Action and intention Problems and solutions Where you stand depends on where you sit Chiefs and Indians The 51-49 principle International and intranational relations Misexpectation, miscommunication, reticence, and styles of play

Theoretical Perspectives from the View of the Elites

Eugene Jennings, in his book *The Executive*, “attempts to describe the uncertainty in the executive role and the several poses or styles that are being developed today, namely, autocratic, bureaucratic, democratic, that will presumably help clarify what constitutes good executive behavior” (1962, p. xiii). He concludes with a style called a “neurocrat” who is burdened by various psychological neuroses (Jennings, 1962, pp. 246-261). Jennings, a psychologist, describes the perspectives in largely Freudian terms. He does not so much compare and contrast perspectives but develops them based on his understanding of what motivates types of behaviors. Summaries of Freud’s theory supplemented by historical examples are weaved throughout the text. Most of the examples are of the behavior of a president or other world leader. The table below summarizes the different concepts considered in each theoretical perspective. One of the more entertaining works reviewed, the table is extensive as this work is one of the primary texts used in Chapter V.

Table 17 Theoretical Perspectives in Jennings

Theoretical Perspective	Concept	Description
Autocrat	The Power Impulse	Strong desire to thrust himself in the breach and to overwhelm by over responding; greatest feelings of confidence, strength and metal vigor result from pitting himself aggressively against his adversaries who may intend to move him in directions contrary to his will (p. 83) Source: from fetus through childhood, power impulse develops out of growing awareness of how power differentials may be used to restrict him. Alternative source, "The Legend of Our Lost Omnipotence" (p. 83-4)
Autocratic	Fear	Oedipal: fear of father as rival and repression of desire for mother (p. 85)
Autocratic	Hierarchical Orientation	Autocracy means self rule or one-man control; need to be essential to activities. When skill is lacking, turns to bullying. Otherwise, freedom and independence accrue from ability to serve and support others (productive autocrat) (p. 88)
Bureaucrat	The Order Impulse	Methodological man who muffles ambiguity in his administrative format; intent on maintaining and perfecting the system; control others by controlling the system of internalized rigid rules and regulations; system as integrator of human energy and will (p. 90)
Bureaucrat	The Putting-In Tendency	An expert in a precise niche striving for maximum effectiveness with limited activity; acceptance of being bounded by technical expertise (pp. 91-2). Source: From fetus, toilet training and on, home is labyrinth of rooms in which specialized activities occur to the exclusion of others; most important phase is transition from infantile megalomania to profound ambiguities of responsibility and control (p. 94).
Democrat	The Sharing Impulse	Based on the affiliative or love impulses; affirms the norm of sharing (power) and promotes rule by the people. Offers unconditional respect; helps people help themselves; tension between control and sharing (pp. 97-99). Source: Resolution of Oedipus ambivalence; becomes person in own right.
Autocrat	The Power Ethic	Strong impulse to rationalize power in terms of social utility and moral necessity; power is a necessity / source of success or failure. Power is often derived from superior knowledge, ability to decide and command, or magnetic personality. Seeks authority to back up accumulated power and eliminates elements his power skills cannot control. True essence of power is predictability / obedience. Status / popularity not as important as power (pp. 120-124).
Autocrat	Power Exercises	Skilled autocrat: refined power; control others without letting them know it (p. 127)
Bureaucratic	Power Exercises	Gain power through being promoted to a higher position (p. 126)

Table 17 Continued

Theoretical Perspective	Concept	Description
Autocrat	Self-Help	Power transmitted to subordinates as a temporary condition for achieving explicit commands; hard to relinquish trivial control points (p. 128). Crisis through triviality /other means offset by skilled decisiveness (p. 130). Extreme cases: domination of subordinates almost total combined with extreme dependency behavior on subordinates executing detail (p. 133).
Autocrat	Self-Protection	Basic distrust of subordinates and to overcome looks to cronies of long standing, men who share his views and biases – “second self”; subordinates arouse autocrat’s usurpation complex by knowing too much, working too hard, gaining too many special privileges, or demonstrating too much intimacy with higher-ups (p. 135).
Autocrat	Self-consultation	Believes in prime importance of individual responsibility / dominance and obedience; ability to dominate is a privilege based on superior ability, foresight, and adaptability; values independent decision-making (p. 137).
Democrat	Certainty and Rigidity	Thrives on ambiguity; enjoys the full richness of developing events before completion and the grey zones between opposites; takes an enlarged view of problems, evidences an amazing patience with distraction, and foregoes many attempts to be logically tidy (p. 142).
Autocrat	Certainty and Rigidity	Low tolerance for uncertain, doubtful, unreliable and attaches himself to well-trying, accepted ideas and practices. Never put one foot forward unless both feet are on the ground. Imposes rigid, conventional and superficial structure on crisis situations (p. 143).
Autocrat	Disciplined Obedience	A martinet: Fear of humiliation and threat (his firm decisions poorly received; ‘his communion with gods rejected by ordinary mortals’); compensates by keeping people in line / obedient. Discipline over fears difficult (pp. 144-5).
Autocrat	Objective Arbitrariness	Objective arbitrariness makes the autocratic style proper and efficient; it is the use of power supplemented by personal skills that overwhelm through their logic rather than their authority where superior knowledge becomes the justification for arbitrary action and disciplined obedience – superior informs and gives reasons which cannot be known or appraised by the subordinate who therefore obeys (pp. 147-9).
Autocrat	Silent Autocracy	Use of seduction to keep people in line; seduction allows autocrat to increase subordinate’s rights, privileges, responsibilities if he conforms to a pattern. Requires control of emotion and is countered with strong aggressive thrusts followed by seductive jobs as part of behavior routine; autocrat’s tool is general inconsistency (pp. 151-2).
Autocrat	Balancing Skill	Realignment as a device to control to subtle manipulation and ensure no one person had too much power. Squeeze play: strong-weak-strong by keeping an individual in line by putting a stronger, more aggressive person below him to keep him harried and run down (like individual in pressure chamber) p. 154.

Table 17 Continued

Theoretical Perspective	Concept	Description
Autocrat	Pride and the Finality Complex	Strong dose of pride in feats of independent judgment and action. Creative spark of self-consultation creates need to for more opportunities to keep it alive. Symptom of finality complex is presentation of decisions as the absolute solution to all problems; through decisiveness he achieves a symbolic union with the powers that are attributed to great men and to gods (p. 157).
Autocrat	The Paternalist	Works to achieve piercing sensitivity to his people's psychological needs and becomes parental figure. Practices a variation on objective arbitrariness where his control is based on irrational feelings in the human psyche rather than mere logic and knowledge; in his infinite wisdom he knows best what his subordinates need or wants; displays hostility to outside groups. While organization becomes tight knight with high morale and productivity, no one has an effective voice because autocrat plays mother and father monopolizing the life –giving and –sustaining forces for their survival. Backlash if not done well (pp. 157-9).
Autocrat	The Power Vacuum	Most crucial disadvantage is the autocrat's tendency to leave a power vacuum. His view of the world precludes developing strong, capable replacements. Subordinates limited in skills and knowledge and submissive. Power struggles will result after departure (pp. 160-1).
Bureaucrat	The Systemic Orientation	Accepts his role as one who puts himself and others in narrowly prescribed roles; excels at developing skilled individuals who maximize their collective efforts through highly rational and formal relationships; maximum effectiveness is found in the routinization of performance through expertise that is not the property of a signal individual; individuals cannot be trusted – locking them into a functionally integrated system obviates problem; decisions are made by consulting precedent, rules and procedures then experts and higher authority (pp. 173-77).
Bureaucrat	The Tidy Show Complex	Need for tidiness in both personal and messy situations; abhors messy situations; tidiness may become more apparent in crisis situations (p. 177-8).
Bureaucrat	Regularity	Punctuality; pattern is one of a high degree of routine; spontaneity is the cause of inefficiency (pp. 180-3).
Bureaucrat	Accuracy	Bureaucratic scheme depends on being free of error; major sin is questionable, deceitful, and undependable behavior; feels it is easier and safer to obtain summaries from facts and figures than people directly; reports become red tape; creative efforts are focused on better ways of receiving and assessing reports from his staff; classify everything by subject, date and reply (pp. 183-6).

Table 17 Continued

Theoretical Perspective	Concept	Description
Bureaucrat	The Ritual of Rules	Conscientiousness in the performance of petty duties with a practice of detail immersion with orderly, predictable vengeance; adherence to rules and regulation, even his own; arbitrary adherence to some technicality that is convenient but irrelevant; rules become symbolic rather than utilitarian, displacing the original purpose for which they were intended (pp. 186-7).
Bureaucrat	Impersonality and Vindictiveness	Loss of objectivity due to ritualistic observance of rules results in bureaucrat becoming impersonal; rules take on a kind of moral character that displaces the superego of the individual; by the observance of rules, he is not only a better functionary, but a better person with a sense of importance and propriety; bureaucratic style often evidences the element of obstinacy, which, at times, may develop into defiance of superior authority; pride is easily offended; neurotic pride can grow from a need to support a role that inherently lacks profound experiences (pp. 187-9). Bureaucratic vindictiveness becomes domination of another by the meticulous enforcement of rules; escape may be through higher authority or complete submission to bureaucrat; bureaucracy is anchored around a system of informal cliques that operate to constrain common enemies and support common friends – this system can come together at a moment's notice to place a superior's position in jeopardy; known to withhold adequate information, overload information channels, and make objective problems of an uncooperative boss or colleague so difficult that the only alternatives are to exit or to give total submission (pp. 189-90).
Bureaucrat	The Magic of Words	Reports require accuracy; specialized jargon of his expertise serves an important function in keeping his behavior orderly and precise; words as "magic helpers" to think about acting rather than acting because of the tremendous risk in acting (pp. 190-1).
Bureaucrat	The Bu-Reactor	A severe reaction against the system of the bureaucrat out of fear of a trap; a "bu-reaction" is almost always accompanied by a burst of emotional vitality directed against the ends of the system to "get out" but never gets out; manifests in devastating reshuffling of administrative personnel and identifying scapegoats; talks aggressively about opportunities to be creative and spontaneous, but not in a hazardous way; spouts change and diversity, flexibility and individuality; a bu-reactor assiduously adopts variations in his routine and procedures to cover up his total dependence on the system – uncommonly common; prevents any real change (pp. 192-4).
Democrat	The Union of the Separated	Power and work units separate men; democratic style attempts to unite those separated by power and order; shares power, skills, beliefs, and interest; his problems, assignments and responsibilities as well as resources; reduces coercive effects of power and order; unites without loss of individuality; may be over solicitous, erratically kind and suffocating; rooted in the capacity to achieve a sense of association with mankind (pp. 199-202).

Table 17 Continued

Theoretical Perspective	Concept	Description
Democrat	Equality	Administrative act of sharing is predicated upon the concept of equality; equality is sympathetic to true superiority in talent or skill; equalitarian orientation opens new channels for the discovery and use of talent; people as individuals; democrat's administrative group may become so attractive that the prestige and satisfaction of membership in it prevents critical / disturbing remarks and prevent roughhousing of ideas and opinions; must guard against too much leveling (pp. 204-6).
Democrat	Freedom	Sharing orientation allows subordinate to develop in directions most appropriate for him; sharing essential for freedom; freedom is conditional and subject to constraint and proper use; assumes responsibility for keeping people informed – if misunderstandings arise, it is because he has failed to convey to others the proper meanings; recognizes words have different meaning for different people; realizes mistakes cannot be dealt with by force and discipline but communication and constructive criticism instead; motivates and controls through the assignment of new opportunities and responsibilities; keeps autocrats busy by establishing extra high standards of performance and achievement which appeals to their sense of mastery (pp. 207-218).
Autocrat	Rationality	Psychologically not prepared to share himself with others; inability to believe in human potentiality minimizes participation; people are basically stupid and lazy and will never be much of anything; man obeys no law save that of power; man responds to threat of force or deprivation; mechanism operating is prudence which is the fusion of fear and reason; controls by minimizing human interaction; view of man is Hobbesian (pp. 218-220).
Democrat	Rationality	Assumes potential good and a high degree of rationality in people; knowledge and freedom are interdependent; health of an organization is measured by the awareness that people have of what is going on; develops for the members of his organization a structural framework for achieving productive activity and experiences that serve to unite them in common endeavor; structure to facilitate rather than restrict (pp. 219-220).
Democrat	The Use of the Group	Better decisions are made through interaction; basic vehicle for implementation of the rational theme is the administrative group comprised of thoroughly competent men who are able to interact in such a way that a trule more productive decision comes forth than would have been made by an individual alone; group cohesiveness may be mixed and erratic and democrat must work at maintaining strong cohesiveness (pp. 225-228).

Table 17 Continued

Theoretical Perspective	Concept	Description
Neurocrat	General description	Administrative style largely ordered by the neurotic needs and forces within the executive; incapable of having satisfactory relationships with other people and transfer frustrations and anxiety into administrative form; lack spontaneous human interaction; cannot adequately accept the uncertainty and indeterminacy of executive life – needs to be certain and secure; role of “executive commander of a microcosm” promises him relief from painful feelings of inferiority and helplessness by glorifying role beyond realistic proportions; driver for glory is in utter disregard of his own best interests – sacrificing family, wife, recreation, relaxation, hobbies, personal pride, respect (pp. 247-251).
Neurocrat	Power, Order and Love	Molds behavior to his idealized picture of executive role; not able to enter a give-and-take relationship; fears being left behind if not leading and directing; emotions repressed because he wants to succeed and to show any emotional imbalance might be detrimental to success; deprive and exploit at will but with rationality of administrative necessity; will humiliate and show vindictiveness; believes in his feeling of mastery; derives no satisfaction from being able to help someone in need or engage in a mutual administrative purpose; not capable of relaxing and being satisfied with himself; wants desperately to be well received, liked, approved; will emphasize freedom and sharing oriented toward the realistic and objective needs of the organization; expects initiative of others and to be the object of their respect, devotion and loyalty; practices self-minimizing and seeks others to help in details; but does not achieve give-and-take relationships as he is so totally dependent upon the affection of others that he is enslaved by them; dominated by the need to be effective at all costs (pp. 252-256).
Neurocrat	The Flexible Executive	Fears uncertainty, insignificance, and humiliation and wants assurances that whatever he does will not require adjustments and changes; he wants to be free of the need to be flexible; tries to find a comprehensive solution that does away with all ambiguity and uncertainty; has no internal check on whatever gains he may make in overcoming ambiguity – does not check his driver for power, order or love; must be kept upright. What differentiates the neurotic from the flexible man is the degree to which the executive is directed by irrational forces within or by realistic and objective needs and demands from without.

Jennings (1962) acknowledges the problems with rigid categorizations of styles, and suggests that executives use the book to learn more about themselves and their styles, using a combination of approaches as appropriate. Jennings's book is useful to my research because he considers different concepts with a theory that allows for a systemic, situational, and structural understanding of concepts in their theoretical perspective; hence, they often meet the critical ideology criteria.

Gordon Tullock (1987), in his book *Autocracy*, attempts first steps at developing a theory of dictatorships. In his own words, his book "is concerned with the internal functioning of dictatorial governments, not the policies they develop...a coherent approach to autocratic government with great emphasis on its internal functioning" (Tullock, 1987, pp. X-XI). Writing in the style of Machiavelli, it provides historical examples and, as the author admits, little empirical evidence exists in this area. The focus is almost entirely on the dictator himself and what he must do to retain power. Books in this genre are useful for historical examples, tactics, and behavioral attributes of the subject. They are less useful for extracting concepts that fit the critical-ideology requirements.

Frameworks in Systems Theory

Models of reasoning might also be viewed from the "theory of action" approach promoted by authors such as Argyris (1994). In this view, the meaning of intensions and agents create a pattern of interaction governed by values actors seek to "satisfice" (Argyris, 1994, pp. 216-217). Another construct is provided by Beer (1966) who describes a scientific approach to decision and control rooted in operations theory and cybernetics which interacts with the political environment. Science is used as a means for fixing belief. Beer describes four basic methods of setting belief provided by the American philosopher Charles Peirce: the method of tenacity (conditioning), the method of authority (actor as indivisible part of larger system), the method of apriority (semantic), and the method of science (Beer, 1966, pp. 17-32). He describes the first three methods as "rational" but without the rigor that would prevent business failure or species extinction. Beer writes, "the method of science is intended to import rigour into the rationality of managers" (Beer, 1966, p. 32).

Belief-driven processes are also discussed in the concept of *sensemaking*. Weick's concept of sensemaking is a useful construct by raising fundamental questions concerning structuring the unknown (1995). Sensemaking is about an activity or process to explore, understand, extrapolate, pattern, and predict while placing stimuli into frameworks (Weick, 1995, pp. 4-5). Its focus is the way people generate what they interpret rather than interpreting passively (Weick, 1995, p. 13). Weick (1995) distinguishes sensemaking from understanding, interpretation, attribution, and other explanatory processes. Sensemaking is understood as a process that is:

1. Grounded in identity construction
2. Retrospective
3. Enactive of sensible environments
4. Social
5. Ongoing
6. Focused on and by extracted cues
7. Driven by plausibility rather than accuracy (Weick, 1995, p. 17)

The deliberative elements of politics are woven into the sensemaking process – “divergent, antagonistic, imbalanced forces are woven throughout acts of sensemaking” (Weick, 1995, p. 136). In addition to belief-driven processes, Weick (1995) addresses action-driven processes which include elements of politics such as manipulation. Manipulation is a process which begins with actions to which beliefs accommodate and explore what occurs (Weick, 1995, p. 168). His second action-driven process is commitment which explores why a particular action occurred. The conclusion he draws from his conception of action is that control is an effect of action rather than a cause of action. His argument seems to avoid the human motivations of power, dominance, fear, and honor in lieu of rationalized benevolent actors who “in general choose and create some of their own constraints in the interests of sensemaking” and use manipulation “to create an environment that people can comprehend and manage” which may involve forming coalitions, conflict resolution, negotiating domains, and education (Weick, 1995, pp. 164-165). As with Beer (1966), Weick (1995) appears to strive for a dominant paradigm. In this case, the dominant paradigm is rooted in the pluralist perspective.

Soft systems methodology (SSM) was introduced as a “holistic” approach to mathematically-based general systems theory. The model of reasoning behind this approach involves conscious and continual reflection through goal seeking. SSM is sensitive to importance of the world view or *Weltanschauung* from which the system model would be built (Checkland, 2004, p. A7). Checkland (2004) describes the SSM model as a learning system that includes context about situations (Checkland, 2004, p. A8). An example of SSM-based contextual analysis is found in Jackson’s four part construct to analyze system approaches: improve goal seeking and viability, explore purposes, ensure fairness, and promote diversity (2003, pp. 24-28). In general, “hard” systems approaches, such as found in Beer (1966), are more closely aligned with autocratic and bureaucratic perspectives and are characterized by a focus on the use of science and technology to control, monitor, and influence events. In comparison, “soft” systems methodologies (SSM, sensemaking) are more closely aligned with epistemological, ontological, and methodological approaches associated with pluralistic and cognitive perspectives. Critical Systems Theory (CST) builds on SSM with the inclusion of knowledge and power as viable elements of the analysis (R. L. Flood, Romm, Norma R.A., 1996, p. 1). However, CST takes a narrow view of critical theory extracting elements of Habermas’ ideal speech situation arguments. This will be discussed in more detail in Chapter III.

Churchman (1968) frames the debate in systems theory in terms of four approaches that advocate: efficiency, the use of science, human approaches, and anarchy where “anti-planners” use cleverness and experience instead of “rational” systems approaches (Churchman, 1968, pp. 13-14). Frameworks also occur in Morgan (1998). In his section on organizations as political activity, Morgan emphasizes the relations among conflict, interest, and power to frame autocratic, bureaucratic, technocratic, and democratic perspectives (Morgan, 1998, p. 152). Frameworks in Soft Systems Methodologies and Critical Systems Theory (R. L. Flood, 1990; R. L. Flood & Carson, 1993; Robert L. Flood & Michael C. Jackson, 1991; R. L. Flood, Romm, Norma R.A., 1996; M. C. Jackson, 2003) are described in Chapter III.

FRAMEWORKS FOR THE ANALYSIS OF POLITICS

There is some overlap between the previous section and this one; some frameworks within this section could have categorized as frameworks using dialectical analysis. However these frameworks stress different aspects of political analysis than the previous sections: historic narrative and methods of ideology analysis.

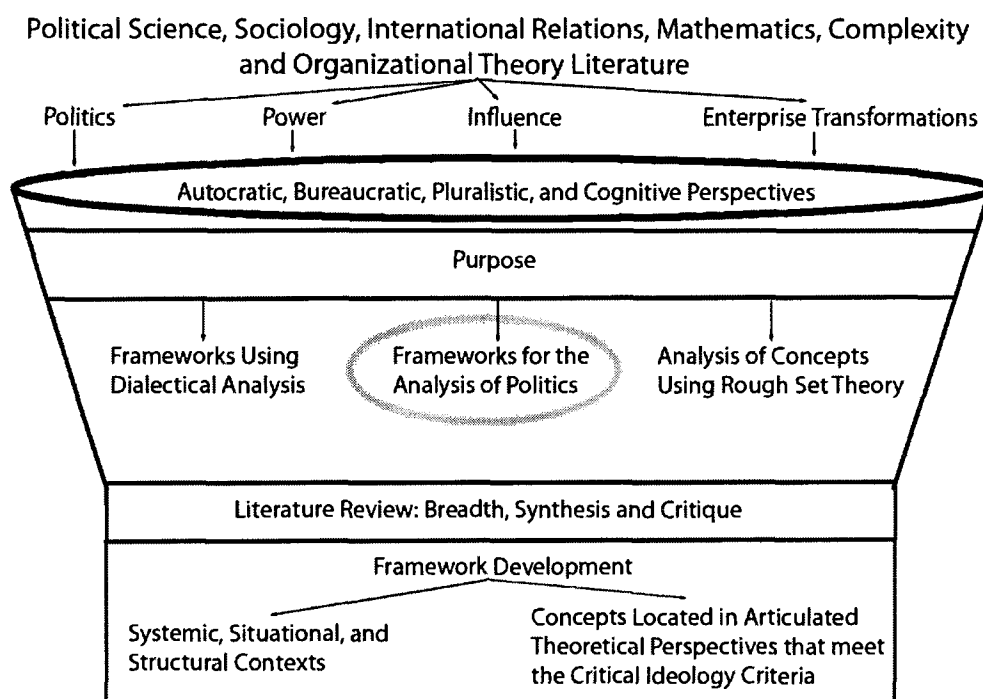


Figure 10 Synthesis of the Literature on Frameworks for the Analysis of Politics

The Foundations of Modern Political Thought

Quentin Skinner, in his classic two-volume set, *The Foundations of Modern Political Thought* (1978b), argues that politics should be examined based on the history of ideologies, where the normative vocabulary of the time lends insights into which questions are examined and discussed:

It has rightly become a commonplace of recent historiography that, if we wish to understand earlier societies, we need to recover their different mentalities in as broadly sympathetic a fashion as possible. But it is hard to see how we can hope to arrive at this kind of historical understanding if we continue, as students of political ideas, to focus our main attention on those who discussed the problems of political life at a level of abstraction

and intelligence unmatched by any of their contemporaries. If on the other hand, we attempt to surround these classic texts with their appropriate ideological context, we may be able to build up a more realistic picture of how political thinking in all its various forms was in fact conducted in earlier periods. (p. xi)

Each concept presented is discussed in its situational and historical context, situating the reader in the theoretical perspective of the time. While the focus of his work is the development of the concept of state, the methodological approach is central to the approach used in this research.

Pattern and Change in World Politics

In his dissertation *Pattern and Change in World Politics: A Chaotic Structuration Model of Anarchic Order and Prediction*, Holmes examines a diversity of meanings of change (systemic, territorial/sovereignty, war, level-specific) within the international relations literature to develop an approach that “views change as a systemic process in which there are radical shifts in patterns of activities” (2000, p. 22). He begins his research with a critique of the effect the language of science has had on our understanding of world politics and turns to chaos theory for insights into the nature of change: he argues that the difficulty in understanding often lies in the tendency of theorists to apply a classical science or linear views using evolutionary, behavioral, or structural means to explain change processes (Holmes, 2000, p. 10).

Holmes (2000) explores historical explanations of change as well as the nature of chaos. He develops a conception of how agents act in strategic situations based on game theory to help determine parameters that are sensitive to global patterns of organization to make inferences about the “nature and timing of self-organizing behavior...the evolution of the model’s stability and its disintegration, the limits and nature of predictability and possibilities of change within the system” (Holmes, 2000, p. 72). Key parameters are incorporated into his Configuration Society Model. His examination of structuration is based largely on a study of Giddens’ work that ends with the equating of structuration theory with systems theory and the development of a cellular automata model of structuralist games (Holmes, 2000, p. 202). Cellular automata will be discussed in more detail in Chapter III in the context of complexity. Additionally, Holmes places an

emphasis on discourse in his research where “discourse is broadly interpreted to mean any symbolic meaningful signaling within a system of interaction” (Holmes, 2000, p. 132).

Holmes’ game is modeled in a 120-by-120-agent square grid where each square represents an agent and the color represents the status of that agent: blue is a cooperator, red is a defector, yellow is a cooperator changing to a defector, and green is a defector changing into a cooperator (Holmes, 2000, pp. 208, 211). He designs the borders such that they create a torus-shaped geometry that represents his Configuration Society Model and provides further analysis on the resulting phase spaces.

Holmes (2000) uses historical narrative from the Gorbachov and Reagan meeting at Reykjavik interpreted along the lines of chaos theory and his Configuration Society Model to conclude:

...there are no objective criteria for decision making in the world politics arena, and predictability becomes as much an input for decisions as an outcome. Understanding the dynamic behavior of the “system” under study, its constitutive and regulative norms, the geography of interaction, the dynamics of system stability based on normative discourse and “convincing” and other speech-act behaviors, and the relative level of change behavior in the system all contribute to building a case for potential stability or change. (pp. 287-288)

In my research, I examine change in terms of dynamic frustration, where the system is defined as the enterprise, and change is characterized in terms of shifting states between cooperation, frustration, and paradigmatic hegemony.

Ideologies in News Videos

While this research develops a literature-based theoretical framework, the work on ideological perspectives by Wei-Hao Lin and Alexander Hauptmann (2008) is interesting in their treatment of concepts within theoretical perspectives. The authors developed a method based on visual concepts from footage shown by different broadcasters. Text clouds were shown to illustrate the differences in what visual concepts were emphasized. Issues associated with distinguishing ideologies with video came down to the same question, “How well can we measure the similarity in visual

content between two television videos?” (Lin & Hauptmann, 2008, p. 114). They conclude that their video concept approach showed promise in distinguishing ideologies.

Automated Ideological Reasoning

Roger Schank, an artificial intelligence expert, and Robert Abelson, a social psychologist, developed a theory of knowledge systems that explored (1) “how concepts are structured in the human mind, how such concepts develop, and how they are used in understanding and behavior” and (2) “how to program a computer so that it can understand and interact with the outside world;” the result was the development of a conceptual apparatus to begin to consider the feat (Schank & Abelson, 1977). Their theories were applied in the development of a system of computer programs called POLITICS:

POLITICS is an automated political belief system simulator. Given an event about a political conflict and an ideology to use in interpreting the event, POLITICS generates a full story representation, predicts possible future events, answers a variety of questions, makes comments about how the situation can affect the United States, and suggests possible courses of action to be taken by the U.S. (Carbonell, 1978, p. 27)

Carbonell’s paper focused on three aspects of the POLITICS project: (1) the representation and function of political ideologies, (2) a theory to account for different ideologies, and (3) counterplanning strategies (Carbonell, 1978). Ideologies are represented by goal trees within the model, but are independent from the reasoning processes. While the research met the goals of the project, Carbonell (1978) concludes the system “needs a concept of political power relations between all political entities to determine which courses of action are appropriate, what to do in case of failure, and how to represent and reference the nature of the relation between two political entities” (p. 50).

CRITIQUE OF FRAMEWORKS

In Table 18 I evaluate the frameworks examined in the previous two sections against the dimensions of systemic, situational, and structural contexts for their

applicability to the analysis of politics in enterprise transformations. Note that I evaluate frameworks as the authors present them. Hence, while in Mitroff and Linstone (1993) I can extract from their literature information relevant to the twelve dimensions I use in my research, the framework that the authors present does not include all of this information. In Chapter IV, I take their dialectic analysis of the concept of risk and fill in the gaps to illustrate how the analysis of other authors can be translated in the framework I develop in this research.

Alford and Friedland (1992) use many concepts in the construction of their framework. In Chapter V, I divide their concepts into two groups. In the first group are concepts used to distinguish between the dimensions in theoretical perspectives. The remaining concepts are evaluated for whether they meet the critical-ideology criteria. The framework that Mitroff and Linstone (1993) develop is limited – many dimensions that might be useful to enterprise transformations are grouped under “other characteristics.” Similarly, Murphy (2001) describes characteristics of three perspectives on risk but the analysis lacks the rigor of defining the dimension that categories the comparison. Jennings (1962) does not present a formal framework and there are few dimensions that are consistently compared across theoretical perspectives. Carbonell (1978) and Schank (1977) develop plan boxes, scripts, and causal linkages centered on the concept of goal.

An infinity symbol is located in the boxes for the number of concepts and dimensions that Lin and Hauptmann (2008) consider in their framework. The authors use “text clouds” which let the concepts emerge from the dialogue under study (Lin & Hauptmann, 2008). Hence the concepts that are examined, and the dimensions that are compared are relative to the text. It is a novel approach – in Chapter VII, I suggest ways in which their approaches might be connected to the theoretical framework as an area of further research.

Total Systems Integration, Critical Systems Theory, and Liberating Systems theory are meta-theories that center on creativity, choice, and implementation to scope the problem and approaches to be considered (R. L. Flood, Romm, Norma R.A., 1996; M. C. Jackson, 2003). These types of frameworks are better suited for problem solving activities as opposed to the analysis of politics. Similarly, soft systems methodology is focused on planning to a defined state. In enterprise transformation problems, the high degree of emergent behavior makes it difficult to adequately define an end state. All of these approaches are inherently participative and critical in the Habermasian sense.

The framework that Argyris (1994) develops is process oriented and distinguishes between people, the way they behave, and their theory-in-use which describes how they actually behave (p. 152). As such, Argyris’ (1994) approach is sensitive to the power of theories emphasized in this research. However, his framework for the analysis of how those theories interact is limited in comparison to the theoretical framework developed in this research. His “Model II” addresses several dimensions used in this research. He centers on the concepts of valid information, free and informed choice, and internal commitment and monitoring of its implementation (Argyris, 1994, p. 153). Similarly, Weick (1995) considers the idea of theories of action that connects systemic metalevels (world views, definition of the situation) with the metalevel that assembles responses. These theories live within the ideology of the organization and interact with the environment to generate action and response in the process of sensemaking (Weick, 1995, p. 123). The socially-constructed approach to sensemaking takes into account and validates the importance of human emotion as opposed to rational approaches found in Beer’s cybernetics that seeks to control enterprises through a cybernetic model (1966). For Beer, transformations are mapped and forecasts adjusted as new information is

received (1966, p. 386); there is little room for the dialectic and emergent political behavior found in enterprise transformations.

In terms of the analysis of politics, the frameworks developed from the political science perspective appear to be the most robust; they contain the greatest number of concepts and dimensions considered. However, their applicability to enterprise transformations is limited given the narrow focus of analysis (e.g., case studies or the studies of the state), lack of a consistent paradigmatic model (e.g., many historical examples with no overarching framework described), or underdeveloped theoretical perspectives (e.g., personality and situations drive the analysis). From the review of frameworks in the literature, it is clear there is no holistic theoretical framework for the analysis of politics in enterprise transformations.

RELATIONSHIP OF RESEARCH TO THEORY AND PRACTICE

The table below lists primary works that are related to the five focus areas that support answering the main question of this research. Many of the works are applicable to systemic, situational, and structural contexts because there are twelve dimensions that need distinguishing criteria in order to consistently differentiate between theoretical perspectives.

Table 19 Relationship of Literature to Research

Literature	Frameworks using the Dialectical Analysis	Frameworks for the Analysis of Politics	Analysis of Concepts using Rough Set Theory	Systemic, Situational and Structural Contexts	Concepts located in Articulated Theoretical Perspectives that meet the Critical-Ideology Criteria
(Agle & Caldwell, 1999)				X	
(Alford & Friedland, 1992)	X	X		X	X
(Allison & Zelikow, 1999)	X	X		X	X
(Bales & Couch, 1969)				X	
(Beer, 1966)				X	
(Bendix, 2001)	X			X	X
(Brown, 1996)				X	
(Argyris, 1994; Argyris & Schön, 1978, 1996)				X	

Table 19 Continued

Literature	Frameworks using the Dialectical Analysis	Frameworks for the Analysis of Politics	Analysis of Concepts using Rough Set Theory	Systemic, Situational and Structural Contexts	Concepts located in Articulated Theoretical Perspectives that meet the Critical-Ideology Criteria
(Churchman, 1968, 1979)				X	
(Clegg, 1989)		X		X	
(Cottam & Shih, 1992)				X	X
(Dahl, 1957)		X			
(Ehrhard, 2000)		X			
(Foucault, 1977, 1979, 1980, 1986, 1988)				X	
(Fu, 1993)		X		X	X
(Ganter, Stumme, & Wille, 2005; Ganter & Wille, 1999)			X		
(Gouldner, 1976)				X	X
(Guba & Lincoln, 2005)	X			X	
(Habermas, 1972, 1976, 1990)		X		X	X
(Handy, 1993)				X	
(Jennings, 1962)	X	X		X	X
(Katz & Kahn, 1966)				X	X
(Kirkpatrick, 1982)				X	
(Lakoff, 2008)	X	X		X	X
(Lukes, 2005)	X	X		X	X
(Marx, 1978a)		X			X
(Mintzberg, 1983)		X		X	
(Mitroff & Linstone, 1993)	X			X	X
(Pawlak, 1992, 1998; Pawlak, Grzymala-Busse, Slowinski, & Ziarko, 1995)			X		
(Pye, 1963, 1965)				X	
(Rosen, 1994, 2005)				X	X
(Schein, 2004)				X	
(Senge, 2006)				X	
(Skinner, 1978a, 1978b)		X		X	X
(Smail, 2008)		X		X	X
(Stone, 2002)		X			X
(Terriff, et al., 1999)		X		X	
(Verba, 1965)		X		X	X
(Waltz, 2001)		X		X	
(Weber, 1978b)		X		X	X
(Weick, 1995)		X		X	X
(Wille, 2005)			X		
(Zimbardo, 2008)				X	

HOW THIS RESEARCH ADDRESSES GAPS

This critique of the literature demonstrates there are significant gaps regarding the analysis of politics in enterprise transformations. The often ambiguous and sometimes conflicting literature on politics, power, and influence provides a wide choice of theories, ideas, and concepts for researchers. Often, existing frameworks use a method of historical case study that is in large part validated according to the explanatory power of the resultant framework (Allison & Zelikow, 1999) while others limit their focus to systemic (Foucault, 1986), situational (Mintzberg, 1983), or structural (Blanchard & Fabrycky, 2001) domains. Limits are also imposed by researchers in the number of ideas and concepts treated in scholarly work (Bendix, 2001; Ehrhard, 2000).

The lack of a holistic theoretical framework that examines systemic, situational, and structural contexts found in enterprise transformation problems is addressed by this research. In terms of the theoretical perspectives articulated in the literature the cognitive perspective is the least developed of the four theoretical perspectives used in this study. This research addresses this gap, particularly in the engineering management field, with contributions to the understanding of the cognitive perspective. Additionally, none of the frameworks identified were validated to the degree of the theoretical framework developed in this research. Many are, however, validated in their explanatory power of historical events; validation of the framework through historical case studies is beyond the scope of the research.

The use of rough set theory to create a framework that can evolve is novel for frameworks that analyze politics in enterprise problems. Table 20 is a summary of how this research will address the gaps found in the literature review.

Table 20 How this Research Addresses Gaps in the Literature

Literature	Research Gaps	Addressed in Research
Politics, Power and Influence	No holistic framework for the analysis of politics in enterprise transformations	√
Theoretical Perspectives	Lack of a fully developed "cognitive" perspective that includes emotions and fear and is useful in enterprise transformation problems	√
Enterprises	Lack of a paradigmatic model to analyze enterprise transformations	√

Table 20 Continued

Literature	Research Gaps	Addressed in Research
Systems Literature (a subset of the three literature categories above)	Narrowly defined critical theory in systems theory limits use of critical management approaches (e.g., critical ideology)	√
Ideas and Concepts filtered through Critical Ideology	While scholarly literature exists for small sets of ideas and concepts (e.g., work, authority, power), there is no comprehensive survey on ideas and concepts relevant to the analysis of politics in enterprise transformations	√
Systemic, Situational and Structural Domain Analysis	A plethora of scholarly work exists that examines each of these domains, however, there is no holistic framework that considers all three contexts in a framework that can be used for the analysis of politics in enterprise transformations	√
Articulated Theoretical Perspectives	The scholarly work that describes different theoretical perspectives is clearly useful to advance different academic disciplines (political science, international relations, etc.). However, there is no rigorous representation or comparative method to examine the body of articulated theoretical perspectives	√
Frameworks using the dialectical analysis and Frameworks for the analysis of politics	Existing frameworks are often found in political science and are validated by their use of political and sociology theories and explanatory power. There is no framework for the analysis of politics using dialectical analysis that uses rough set theory to create an evolving framework	√
Analysis of concepts using rough set theory	Rough set theory has been used successfully in artificial intelligence and query problems on incomplete data. This research does not address gaps in this field but uses these tools in the process of creating an evolving framework	√

CHAPTER SUMMARY

The paradox of transformation is characterized by tension between the present and the future. In large part, the paradox is motivated by fear – the fear of losing identity, experiencing disassociation, and becoming irrelevant. The process of transformation has been shown to involve trust breaking as well as these aspects of fear. Fear is often addressed through the employment or retention of a single dominant paradigm. But the paradox of a dominant paradigm is that change can only be discussed in terms that affirm current realities of the enterprise. Successful managers and leaders of enterprise transformations must take into account this paradox as they develop or modify new

concepts among an array of different theoretical perspectives. The literature review highlights both the need for the dialectic in the process of transformation and significant weaknesses in existing frameworks described herein.

A firm foundation for addressing the gaps in the knowledge base regarding the analysis of politics in enterprise transformation was established through the breadth, synthesis, and critique of the existing literature that centered on the five focus areas:

- (1) Frameworks using the dialectical analysis
- (2) Frameworks for the analysis of politics in enterprise transformations
- (3) Analysis of concepts using rough set theory
- (4) Systemic, situational, and structural contexts
- (5) Concepts located in articulated theoretical perspectives that meet the critical-ideology criteria
- (6) Analysis of concepts using rough set theory.

After the research perspective is described in Chapter III, Chapter V considers the results of this chapter and Appendix C: Theoretical Framework Construction, Appendix D: Coding the Clarifying Concepts, and Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives present the theoretical framework. Focus areas (4) and (5) are developed in Appendix C: Theoretical Framework Construction and Appendix D: Coding the Clarifying Concepts, respectively. After the development of distinguishing criteria for each of the twelve dimensions within the contexts, I examine all of the concepts relating to enterprise transformations as revealed in the literature review. They are evaluated for whether they are located in an articulated theoretical perspective and meet the critical-ideology criteria as summarized in Chapter V.

Conclusions from the validation of the theoretical framework are described in Chapter VII. In this chapter, I use rough set theory to address validation concerns. Focus area (6) supports these conclusions. An introduction to rough set theory is located in Appendix A: Introduction to Rough Set Theory and a relevant example is described in Chapter IV.

CHAPTER III: RESEARCH PERSPECTIVE

The perspectives should be understood in two senses. On the one hand, they are historical products – systems of ideas and practice that developed and held sway in specific times and circumstances. To completely divorce them from their context would be a mistake, since much of their meaning is historically situated. But at the same time, the perspectives selected are not just of historical interest. Each has shown great resilience and has been invented and reinvented over time so that each has persisted as an identifiable, analytical model... In their pure form, the perspectives share many of the features of paradigms as described by Kuhn in his influential essay on scientific revolutions. Kuhn describes paradigms as “models from which spring particular coherent traditions of scientific research.” (Kuhn, 1962)

Richard Scott, *Organizations: Rational, Natural, and Open Systems*, 2003

CHAPTER OVERVIEW

This chapter describes the philosophical foundations and methodology used to develop and validate the theoretical framework for the analysis of politics in enterprise transformation. The result is a description of the primary ontological, epistemological, and methodological inquiry paradigms behind research assumptions. As Scott’s quote so aptly points out, analysis on perspectives must consider the historical context as well as the associated system of ideas and practice. While it is certainly true that a careful articulation of the research perspective is necessary to make it clear where biases may influence the research, perspective research requires that the articulation be almost foundational in nature. That is, my perspective is driven from insights in foundational mathematics, neurobiology, and complexity theory. These insights drive the inquiry paradigms that have shaped my research topic, design, approach, and interpretation of data.

At a fundamental level, neurobiology shapes how human beings conceptualize and understand complexity and complex situations. Neurobiology affects our ability to rationalize, decompose, and aggregate concepts and analysis and enables us to create,

design, manage, and destroy “things.” Applied to the human dimension, these abilities have the potential to trap us in fallacies, generalizations, and unclear thinking that causes us to apply power or use influence in muddled ways or to solve the wrong problem leaving us surprised by different outcomes than intended. Politics, power, and influence live in this human dimension where ideas, words, and language compose knowledge which is constructed socially. Neufeld (1994) writes:

In short, ideas, words, and language are not mirrors that copy the “real” or “objective” world – as positivist conceptions of theory and knowledge would have it – but rather tools with which we cope with “our” world. Consequently, there is a fundamental link between epistemology – the question of what counts as reliable knowledge – and politics – the problems, needs, and interests deemed important and legitimate by a given community. (p. 15)

Neufeld’s description is inherently post-positivist, yet our understanding of neurobiology acts as a bridge between post-positivist and positivist conceptions of knowledge by revealing the biological, physiological, and chemical bases for how and why we constitute knowledge. Theories are a fundamental part of this construction of knowledge as they play a large part in defining what counts as fact (Giddens, 1990, p. 38; Zalewski & Enloe, 1995, p. 9).

The paradoxical nature of enterprise transformation problems influenced the choice of research method and the research design. Enterprises often lack the critical posture necessary to discuss modified or new concepts or radical changes in terms other than those that affirm present realities. Breaking this paradox requires a way to discuss change in terms other than the dominant paradigm and will cause frustration and cooperation as individuals and groups both within and external to the enterprise seek strategic alliances to shape systemic, situational, and structural arrangements. For any framework for the analysis of politics to be useful, it must address these shifting states. That is, the framework must address the primary difficulties inherent in complex problems. This chapter examines the complex phenomena of geometric frustration in complex systems as an analogy of these dynamics.

Each of the three contexts considered in this research has a different domain of analysis and varies in its abstraction of reality. Understanding systemic change is particularly challenging in enterprise transformation problems due to the degree of

abstraction from reality necessary to perform analysis. That is, in problems where the domain for analysis is highly representative of reality, systemic perceptions of analysis and design are quasi-interchangeable: however, systemic perceptions of emergent behaviors such as those found in transformation problems are limited (Sousa-Poza & Correa-Martinez, 2005, p. 2748).

Dialectical theory is a useful research approach because it opens up new possibilities for change by introducing different ways of looking at old and new concepts through deliberate engagement with different theoretical perspectives. The second level of theory used in this research is critical ideology which has its roots in critical theory. In this chapter, I provide an overview of critical theory in the context of systems theory as part of the research perspective. I conclude that some holistic methods found in the engineering management and systems engineering discipline base their approaches on a very narrow view of critical theory.

Finally, this chapter provides a historic overview of the inductive method and addresses the advantages and disadvantages of using this approach in the research. The research perspective described in this chapter provides a foundation for the critical examination of these issues within the theoretical framework presented in Chapter V.

CONCEPTS, MODELS, AND FRAMEWORKS

This section describes the basic elements necessary to theorize concepts, models, and frameworks. These three elements interact dynamically as individuals and groups create structured expressions of the world. Structured expressions are limited by human capacity, yet the diversity found in life yields unlimited possibilities. In this research those limits are articulated as theoretical perspectives. I began the research with four theoretical perspectives as a baseline and demonstrated in Chapter VII how the framework can account for a large number of possible theoretical perspectives.

Concepts

Within an enterprise, each business unit develops its own identities, concepts, and models that are validated through interactions with colleagues and partners. Work-place demographics, morale, and mission contribute to how concepts are acquired and evolve

and define personal concepts of power and politics. Concepts are convenient classifications and categories of reality that are validated in experience and become integral parts of our personalities. When differing concepts collide, they can produce cooperation, frustration, or paradigmatic hegemony. The use of influence or application of power as part of political engagement is shaped by the situational characteristics – perceptions of trust, fear, honor, democratic participation, and legitimacy – that surround the collision.

Despite the extensive literature on the management of enterprises and organizations in a variety of disciplines, management books, seminars and courses, politics is often avoided or narrowly addressed – it is a symptom of a culture that is uncomfortable with uncertainty and risk. Of this culture, Katz and Kahn (1966) write, “The great central area of man’s behavior in organizations and institutions and the psychological character of such groupings has been [largely] ignored. Yet the individual in the modern western world spends the greater part of his waking hours in organizations and institutional settings” (p. 1). Katz and Kahn published this statement in 1966 and since then there have been marked advances in the understanding of human behavior in organizational and institutional settings from biological, psychological, and sociological perspectives. However, the practical tools and methods of enterprise analysis for the most part remain rooted in scientific and bureaucratic approaches.

This research is about politics, power, and influence. Hence psychology, uncertainty, and risk are elements that must be addressed with some degree of rigor. A discussion about the collision of conceptual models will necessarily bring to bear often unexpressed assumptions about human behavior. The assumptions described here are in terms of human skill clusters used in the process of conceptualization and are summarized in Table 21. They provide a basis for discussion of the research without diverging into the scholarly debates on the human mind that would distract the main focus of the research. Assumptions about human behavior are important considerations in designing strategies for the employment of new concepts, models, and frameworks but are often the most neglected in lieu of the “heroic assumption” that what a person in authority directs is clear, unambiguous, and shall be done.

Table 21 Skill Clusters used in the Process of Conceptualization (adapted from Donald, 2002)

Skill Cluster	Description
Self-monitoring	The ability to monitor successes and failures and adapt behavior accordingly
Divided attention	The ability to focus attention on multiple tasks and goals
Self-reminding	The ability to link sequences through component action
Auto-cueing	The ability to rehearse and explicitly recall memories from internal cues
Self-recognition	The ability to consciously “objectify” our physical selves to reinforce or change behavior through training or a system of rewards and punishments
Rehearsal and review	The ability to self-motivate critical self-reflection
Whole-body imitation	The ability to imitate not only actions, but intensions of ourselves and others. Also applies to group stereotypes
Mind “reading”	The ability to understand (to a degree) a person’s world view, values, interests and historic narratives. Also applies to groups
Pedagogy	The ability to use the understanding of a person’s world view, values, interests and historic narratives and adapt one’s own behavior and beliefs, as well as attempt to influence the object person. Also applies to groups
Gesture	The ability to signal intensions through physical action
Symbolic Invention	The ability to create spontaneous, unsolicited and novel expressions such as new words, art, mathematical symbols, and music compositions
Complex skill hierarchies	The ability to embrace complex concepts and tasks and combine all other skill clusters to articulate narratives, produce complex physical structures and mechanisms, create institutions, ideologies, and manage organizations and enterprises

Self-Monitoring, Divided Attention, Self-Reminding, Auto-Cueing, and Complex Skill Hierarchies

Humans have the ability to focus their attention on multiple tasks and goals, monitor their successes and failures, and review and adapt their behaviors in both gregarious and subtle ways. Researchers evaluate how new concepts and models affect the potential failure or success of tasks or goals and accept, reject, or modify proposed or existing concepts as desired. The ability of humans to embrace complex concepts as well as complex tasks is due in part to the abilities to link sequences through component action (self-reminding), and rehearse and explicitly recall memories from internal cues (auto-cueing). Together, these aspects of human behavior form complex skill hierarchies that give us the ability to engineer buildings, bridges, machines, create art, and manage organizations and enterprises. This remarkable ability is illustrated in the following passage on aspects of Bach’s compositions:

His form was in general based on relations between separate sections. These relations ranged from complete identification of passages, on the one hand, to the return of a single principle of elaboration or a mere

thematic allusion, on the other. The resulting patterns were often symmetrical, but by no means necessarily so. Sometimes the relations between the various sections make up a maze of interwoven threads that only detailed analysis can unravel. Usually, however, a few dominant features afford proper orientation at first sight or hearing, and while in the course of study one may discover unending subtleties, one is never at a loss to grasp the unity that holds together every single creation by Bach. (David, Mendel, & Wolff, 1998, p. 24)

That concepts are so powerful is due, in large part, to these abilities that transform concepts over time within the social and political constructs within which humans live.

Self-Recognition, Rehearsal, and Review, Whole Body Imitation, and Gestures

Conceptual models are also influenced by our ability to consciously “objectify” our physical selves, imitate behaviors we find advantageous (or mock those we find humorous or offensive), and gesture our intentions. Humans have a tremendously large repertoire of learned and observed facial expressions, attitudes, sounds, postures and gestures. Objective self-visualization and self-recognition gives humans the ability to improve their performance or image and reinforce conceptual models through video-taped training, mirrors, and so on (Donald, 2002, p. 142). Through a system of reward and punishment and learned traditions, beliefs and values are transferred across generations. In enterprises, business units and teams become trapped in defensive behaviors unconsciously and consciously designed to insulate accepted concepts and behaviors from examination (Senge, 2006, p. 172). At the macro level, political, social, economic, educational, and military institutions often provide the transfer of traditions, beliefs, and values. These structures largely determine systemic contexts: world views, values, interests, and historic narratives. Foucault (1980) refers to the phenomena described as normalizing power which can be coercive or supporting depending upon whether and to what extent the concept behind the power differs from an individual’s world view, values, interests, and historic narratives. Significant differences may encourage (individual or group) behaviors that act as defensive routines to prevent acceptance of new or different concepts. Senge (2006) illustrates this phenomenon in his description of a workshop on the values of openness and merit:

Within a matter of minutes, literally, I watched the level of alertness and “presentness” of the entire group rise ten notches – thanks not so much to

Argyris's personal charisma, but to his skillful way of getting each of us to see for ourselves how we got in trouble and then blamed it on others. As the afternoon moved on, all of us were led to see (sometimes for the first time in our lives) subtle patterns of reasoning which underlay our behavior; and how those patterns continually got us stuck. I had never had such a dramatic demonstration of my own mental models in action. (p. 173)

These abilities enable a critical approach to systemic, situational, and structural contexts, where individuals and groups have the power to continuously evaluate interactions and relationships with the effect of systemic and structural contexts on how power flows.

Mind "Reading" and Pedagogy

The human capacity to understand that knowledge in others shape their behaviors and the ability to regulate the learning process of another while simultaneously tracking the object's intent is central to behaviors in social interactions, understanding relationships, the application of influence and the acquisition of new knowledge from shared concepts (Donald, 2002, pp. 143-144). Donald (2003) explains, "Human speakers often carry out several complex operations at once, in several modalities, simultaneously maintaining parity with multiple recipients of their communications" (p. 147). One way to examine this capacity is through first, second, and third person perspectives. The first person perspective is concerned with looking at the world from ones' own point of view. Raines and Ewing (2006) illustrate this point of view with an "awareness model" represented in Figure 11. In the second person perspective, one tries to see the world through another person's world views, values, interests, and historic narratives. As with all of these perspectives, knowledge will never be perfect and will continuously change through multiple levels of interaction. In the third person view, an individual sees the world through the proverbial "fly on the wall" in an attempt to understand the dynamics of the situation at work. This perspective is particularly useful when emotions threaten to take over the interaction (Raines & Ewing, 2006, p. 127).

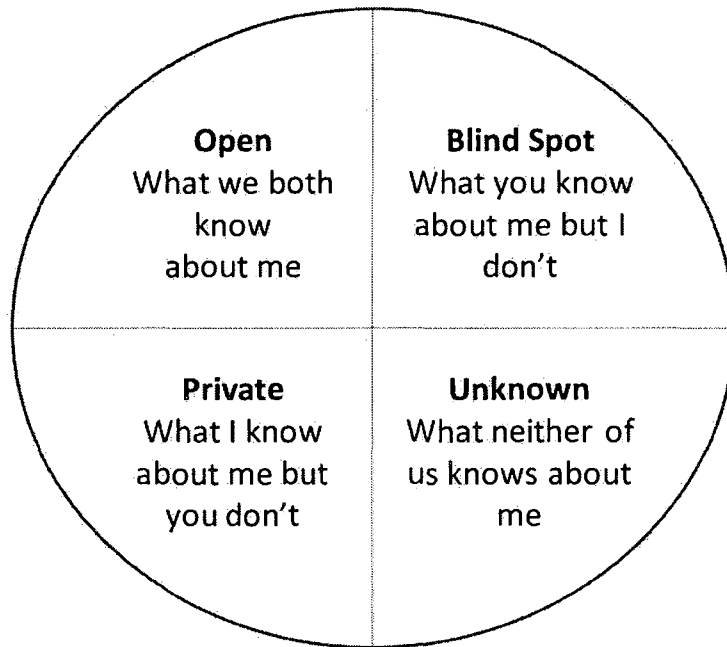


Figure 11 The Awareness Model (adapted from Raines, 2006)

Symbolic Invention

Concepts are sometimes captured and represented through symbolic intervention – “the spontaneous, unsolicited creation of novel expressions” (Donald, 2002, p. 145). Some examples are words, mathematical symbols, and musical compositions. Such symbols are combined in a multitude of ways with the abilities discussed above and incorporated into the process of conceptualization. The creation and deconstruction of symbols is central to research in areas of cognitive science as well as in some post-positivist research.

Summary

This section defines the term *concepts* and describes the process of conceptualization and the psychological assumptions regarding human behavior used in this research. Because enterprise transformation problems are concerned with changing the status quo, the collision of existing and new concepts is inevitable. In light of the possibly infinite number of combinations in which skill clusters can combine, it is clear that attempts to drive conceptual change through the top-down application of power are a

failed strategy. What is needed is a framework that takes into account the spectrum of human skill clusters and provides recommendations that increase (not determine) the possibility of desired behaviors.

Models

Abstractions of reality that represent objects, processes, or mental pictures are models (Scholefield, 1974, p. 80). As such, models represent partial views of other constituencies' concepts and will never be exactly right. For example, hundreds of companies have come forth with solutions to counter improvised explosive device threats (IEDs) that soldiers face in theater. In the process of product development, a company develops mental concepts and models for how the soldiers will operate. Often, these solutions work well in the laboratory. However, the battle field is a highly complex environment. There are challenges in electronic spectrum management, incompatible service doctrines behind individual soldier training, and caveats for what nation partners can and cannot do in war time. An accurate model of the environment does not exist—hence solutions are often woefully inadequate. The adversary continues to adapt to fielded IED solutions and the government is continually frustrated searching for solutions that attack the whole system, not just abstracted parts. A useful model for the analysis of politics in enterprise transformations must be holistic as well as dynamic in order to respond as constituency, adversary, or competitor as concepts evolve and adapt in the process of transformation.

Frameworks

Frameworks are useful to sort through the jumble of concepts, models, facts, and opinions in enterprise transformations. According to Starbuck and Milliken (1988), “When people put stimuli into frameworks, this enables them ‘to comprehend, understand, explain, attribute, extrapolate, and predict’” (p. 51 as cited in Weick, 1995, p. 4). While care must be taken to not oversimplify complex situations and relationships, frameworks offer somewhat of a decomposition of the problem into sub-problems that focus on relationships between objects, processes, and even organizational cultures. For example, a table with a list of constituencies at the top and a list of information required

in the left column can ensure that the right information for a specific problem is collected before analyzing the data. Frameworks provide a method to ensure the information needed is collected and included as solutions are developed and decisions are reached (Scholefield, 1974, p. 83). The challenge in practice is that frameworks are abstractions of reality that are formed from mental models and concepts, hence they are limited in their applications. However, as our understanding of complexity and non-intentional models mature, our ability to characterize knowns, unknowns, and spectrums of possibilities improves, but fundamentally it is the stakeholders' collective ability to accept complexity, uncertainty, and risk which factor most in the successful application of a framework.

With all these competing concepts, mental models, and abstractions of reality occurring at multiple levels, it is no wonder enterprise transformations frequently seem paradoxical in nature when they are approached using established concepts and doctrines supported by existing reward systems, structures, and patterns of communication. Often the way things “ought” to proceed through rational planning is not the way the plan unfolds.

PRIMARY DIFFICULTIES IN COMPLEXITY

The concept of dynamical frustration permeates the research perspective used in this research. As I explain below, dynamical frustration can help explain social, psychological, biological, and chemical phenomena. For the complex phenomena of politics and enterprise transformation, dynamical frustration is a useful concept to help understand the dynamics across systemic, situational, and structural contexts. I describe scale, geometric, and computational frustration as they relate to these contexts.

Complexity, Politics, and Enterprise Transformation

Both politics and enterprise transformations are characterized by shifting states of existing and emergent behaviors: cooperation, frustration, and paradigmatic hegemony. For any framework for the analysis of politics in enterprise transformation to be useful, it must help users make better decisions, and therefore, must address these shifting states. That is, the framework must address the primary difficulties inherent in complex

problems. Complexity as a concept is difficult to define; hence, researchers bound and approach complex problems in different ways (Binder, 2008, p. 322; R. L. Flood & Carson, 1993, p. 38; Irion, 2001; Nowotny, 2005, p. 15). One such common theme is the existence of cooperative behavior, “The common thread between all complex systems may not be cooperation but rather the irresolvable coexistence of opposing tendencies” (Binder, 2008, p. 322). Binder (2008) refers to this concept as “frustration;” a concept that “includes all examples-genetic algorithms, computers, the immune system, the brain, protein folding, the stock market, and systems that evolve and adapt” in a unifying theme (Binder, 2008, p. 322). Systems that lack frustration will either balance to equilibrium (cooperation) or grow without bounds (where a single hegemonic paradigm emerges) (Binder, 2008). Certainly we can add politics in enterprise transformations to the list of systems that display frustration, cooperation, or hegemonic paradigms.

Geometrical Frustration and Structural Characterization of the Framework

Figure 12 is a representation of geometric frustration in the form of a Lorenz attractor. Lorenz’s discovery of this phenomena in 1963 demonstrated that it is possible to find structure in chaos and demonstrated the sensitivity of this structure on initial conditions (Strogatz, 1995, p. 3). Here chaos is defined as “aperiodic long-term behavior in a deterministic system that exhibits sensitive dependence on initial conditions”¹⁰ (Strogatz, 1995, p. 323). Morgan uses the metaphor of the Lorenz attractor to discuss various observed organizational phenomena such as emergent coherent order and repeated patterns out of the seemingly complex non-linear behavior (1998, pp. 222-223). Structures, cultures, rules, power relations, and similar forces at work in organizations are examined to understand how the organization is locked into its existing “attractor” pattern. Movement from one attractor to another is motivated by small changes for large

¹⁰ It is possible that the Lorenz equations can exhibit transient chaos for certain numerical values. In these cases, the dynamics are not “chaotic” because they fail to exhibit long-term aperiodic behavior. An example of transient chaos is rolling a dice (Strogatz, 1995, pp. 331-333)

effects creating emergent new orders and rules (Morgan, 1998, p. 228). Morgan does not specify what changes might create large effects nor what variables might be most sensitive to setting conditions for emergent behavior.

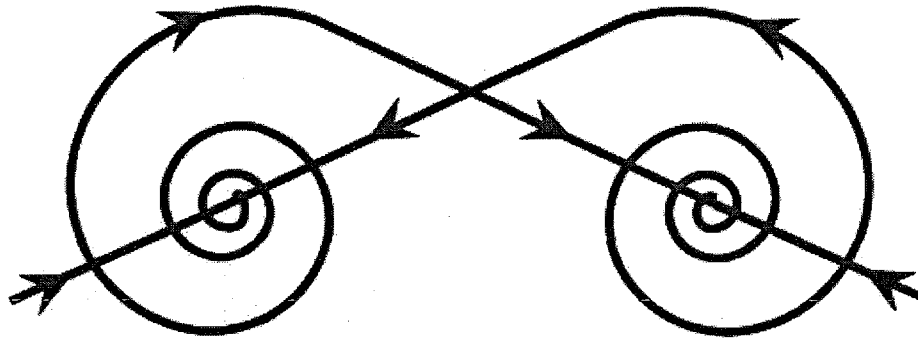


Figure 12 Lorenz Attractor (adapted from Binder, 2008)

Geometrical frustration is also found in solids where magnetic ground states emerge as a result of balance between competing factors (Karunadassa, Q., Ueland, Schiffer, & Cava, 2003, p. 8097). Researchers at the Institute for Complex Adaptive Matter in Los Alamos have postulated that emergent behavior is most likely to come from “systems where building blocks are competing against each other in 2 or 3 different ways” providing insights on what brings matter to life (Irion, 2001, p. 32). For this research I use geometric frustration and its characteristics as a metaphor for the structural characteristics of the theoretical framework for the analysis of politics. The parallels drawn between phenomena are more specific than Morgan’s broad description of shifting states. I examine the possibilities and tensions that may emerge in the dialectical analysis. Structural contexts such as boundaries, communication, and geographic location can encourage or inhibit the collision and redefinition of “knowledge domains” and provide insights into how power and influence might shape the emergent behaviors (Nowotny, 2005, p. 21). At these points of collision, perspectives can shift as the enterprise is faced with stimulus that challenges the status quo providing the opportunity for emergent political behavior.

Scale Frustration and Situational Characterization of the Framework

A second manifestation of dynamical frustration is scale frustration. In Figure 13, parts of the system are rotating on a clockwise direction as the global system rotates in a counterclockwise direction (Binder, 2008, p. 320). An example of scale frustration is the traveling salesman problem. This excerpt from the Georgia Tech hosted website¹¹ on the traveling salesman problem describes the challenge (Cook):

Given a collection of cities and the cost of travel between each pair of them, the **traveling salesman problem**, or **TSP** for short, is to find the cheapest way of visiting all of the cities and returning to your starting point. In the standard version we study, the travel costs are symmetric in the sense that traveling from city X to city Y costs just as much as traveling from Y to X.

The simplicity of the statement of the problem is deceptive -- the TSP is one of the most intensely studied problems in computational mathematics and yet no effective solution method is known for the general case. Indeed, the resolution of the TSP would settle the P versus NP problem and fetch a \$1,000,000 prize from the Clay Mathematics Institute. Although the complexity of the TSP is still unknown, for over 50 years its study has led the way to improved solution methods in many areas of mathematical optimization.

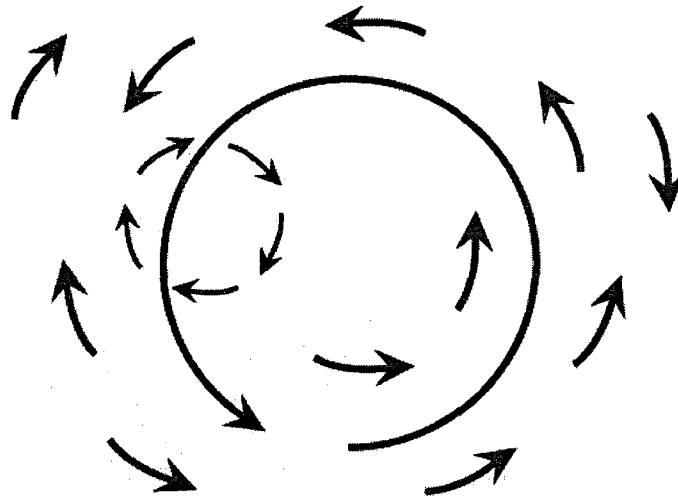


Figure 13 Geometric Frustration (adapted from Binder, 2008)

¹¹ The web page is sponsored in part by the Office of Naval Research (N00014-03-1-0040), the National Science Foundation (CMMI-0726370) grants and the School of Industrial and Systems Engineering at Georgia Tech.

The TSP problem and similar difficult problems in protein folding and spin glasses represent scale frustration that is imposed by energy or fitness landscapes that are characterized by peaks or valleys at many scales . But, as often found in politics, scale frustration can occur when “cooperative behavior at large scales” opposes local behavior which generates complexity (Binder, 2008, p. 322). The way in which these forces combine reveal often subtle cause and effect relationships and emergent behaviors that defy conventional planning, forecasting, and analysis methods (Senge, 2006, p. 71). From a sociological view, patterned, large scale behavior found in societies and organizations shape, to a considerable extent, the behavior of individuals (Katz & Kahn, 1966, p. 12); friction between these large and small scale patterns create the conditions for emergent behavior. Cellular automata, another representation of scale frustration, are useful as analogies to scientific processes – especially when there is no representative structural equation – and can demonstrate that what appears to be random events are not random at all (Pepinsky, 2005, p. 371). Pepinsky (2005) writes, “It is the interactions of cellular automata that serve as the foundation of much work in the field of simulation of world politics” (p. 371). In addition, this approach is often used to model traffic flows and fluids (Binder, 2008, p. 322). Bar-Yam (2005) uses cellular automata to support his proposition that mismatches between global funding and policies and individual needs in health care and public education contribute to the failure of both (Binder, 2008, p. 322).

Agent-based modeling, and in particular the complex adaptive systems approach, can also be used to model scale frustration in social systems. Particular care is required to specify the environment, the agents, and the rules and parameters to avoid a multitude of errors (Pepinsky, 2005, p. 375). Epistemological assumptions inherent in the approach as well as the ontological assumptions in terms of agent perceptions of the environment, importance of agents, processes, and parameters used in the domain of analysis need to be carefully documented and have their conclusions supported with a clear chain of evidence (Pepinsky, 2005, pp. 375-376). Complex problems are messy, imprecise and unpredictable, but through the methods described above as well as adaptive strategies such as replication, mutation, and recombination, both natural and social scientists can gain insights that significantly contribute to their respective fields (Binder, 2008, p. 322).

The multi-level nature of enterprise transformation problems lends itself well to scale-frustration methods. Geometric frustration highlights the challenges inherent where there are multiple levels of analysis possible. As was discussed in Chapter I and within the literature on politics, analysis is often divided into either the study of elites or the study of mass phenomena. However, enterprise transformations are characterized by a high degree of emergent behavior that may simultaneously occur at different levels within the enterprise and over large and small scales.

SUMMARY: STRUCTURAL AND SITUATIONAL CHARACTERIZATION OF THE FRAMEWORK

To summarize this section so far, I have described both geometric and scale frustration and the primary difficulties in analyzing manifestations of these types of dynamical behaviors. Geometric frustration is useful as an analogy to understand and analyze the structural characteristics that a framework for the analysis of politics in enterprise transformation will have to address. Competing “knowledge domains” collide producing emergent behavior that manifests in the irresolvable coexistence of tendencies (frustration), cooperation (equilibrium), or result in the dominance and expansion of a single knowledge domain (grow without bounds).

Computational Frustration: The Most Complex of All Systems

The third type of dynamical frustration is computational frustration. In Figure 14, an infinite memory tape feeds a hierarchy of increasingly powerful computers with Turing machines on the top (Binder, 2008, p. 320). The Turing machine is an abstract mathematical, not physical, construct, that assumes both infinite computer memory and time to complete the computation (Barker-Plummer, 2007). In general, it is a type of state machine that is determined by its current state, the next cell of the tape under consideration, and an algorithm or set of transition rules. Turing postulated the machine as he considered the question of whether machines could think. Prior to his contribution, it was well understood that humans could follow algorithms in much the same way one would follow instructions from a manual. Turing’s novel contribution was to shift the

focus away from rules to the state of the person’s mind and how that state could be represented by a machine. Turing “was able to show, by a process of successfully stripping away inessential details, that such a person could be limited by a few extremely basic actions without changing the final outcome of the computation” (M. Davis, 2000, pp. 147-148). What he showed was that any computer that could perform these basic actions could not determine whether a proposed conclusion followed from a set of premises,¹² and in the process developed the Turing machine (M. Davis, 2000, p. 148). The system that Turing focused on was Gottlob Frege’s system of logic and associated deductive inferences. Frege’s seminal book *Begriffsschrift*¹³ “was subtitled, ‘a formal language, modeled upon that of arithmetic, for pure thought’” (M. Davis, 2000, p. 48). Turing’s finding is analogous to enterprise settings where transformations are attempted within existing and dominant paradigms – a transformation paradox. A future transformational state may be postulated, but using Turing’s logic, it cannot be instrumented from a set of premises.

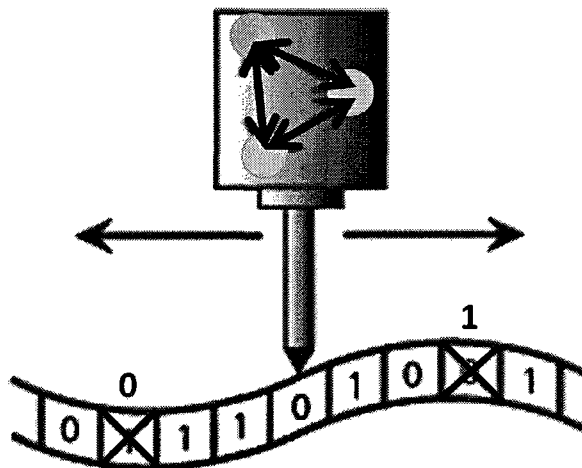


Figure 14 Turing Machine (adapted from Binder, 2008)

¹² This showed that Hilbert’s Entscheidungs problem cannot be solved. That is, there are no “explicit calculational procedures by means of which it would always be possible to determine, given some premises and a proposed conclusion...whether Frege’s rules would enable that conclusion to be derived from those premises” (M. Davis, 2000, p. 146) If this problem had been proved true then all deductive reasoning could be accomplished by calculations.

¹³ *Begriff* is the German word for “concept” and *schrift* means “script” or “mode of writing.”

The Turing machine is a useful abstract for understanding complexity, but to apply that understanding to problems in the human dimension requires higher levels of abstractions where precision is lost in each step. Hofstadter (1979) writes, “What emerges at the top level is the ‘informal system’ which obeys so many rules of such complexity that we do not yet have the vocabulary to think about it” (1979, p. 559). Still, the construct is useful for insights into human behavior in complex settings by increasing our understanding of what should not be included in prescriptive designs for organizational problems. Too often there is overconfidence among stakeholders in scientific, technological, and bureaucratic approaches to driving outcomes. Certainly these approaches are important, but what is needed is a clear way to describe those parts of reality where these approaches are not as useful. We know from Turing that if a particular task cannot be accomplished by a Turing machine, then there is no algorithmic process that can accomplish the task (M. Davis, 2000, p. 157). In this framework, structural domains of analysis are best suited for “algorithmic processes,” while systemic and situational domains are less suited prescriptive designs. More about this research perspective is discussed in the section on ontology of complex systems in this chapter.

As Turing explores the question of whether machines can think, he proposes the idea of fallible machines that can learn from their mistakes. In an address to the London Mathematical Society on February 20, 1947, Turing states: “There are several theorems which say almost exactly that...if a machine is expected to be infallible, it cannot also be intelligent...But these theorems say nothing about how much intelligence may be displayed if a machine makes no pretense at infallibility” (M. Davis, 2000, pp. 189-190).

The quote refers to Gödel’s Incompleteness theorem which shows that while a system may be logically consistent when viewed from the inside, consistency is insufficient to guarantee what is proven is correct when viewed from outside the system. That is, there are “consistent systems” in which a false proposition is provable (M. Davis, 2000, pp. 123-124). As Turing alludes in his quote, Gödel’s Incompleteness Theorem is only applicable for algorithms that produce true sentences and that “there is nothing in Gödel’s Theorem to preclude the mathematical powers of a human mind being equivalent to an algorithm process that produces false as well as true statements” (M. Davis, 2000, p. 207).

This research draws from the fields of sociology, political science, and organizational theory to develop the theoretical framework. Each of these fields has established theories that, when viewed from within the discourse of the discipline, are logically consistent (though they may be contested with other theories) but are not necessarily “provable.” For example, in line with Rawls, a secular political theory assumes “all rational beings see their actions as potentially meaningful and evaluable; and that as a consequence, rational self-direction, autonomy, and mutual respect constitute appropriate features of life within a good polity” (Geise, 1991, p. 593). Geise claims Gödel’s Theorem implies these assumptions are not provable – “they are entwined in our notion of ethico-political agency itself; and we cannot prove them because any proof would require the use of a language drawn from outside the realm of political discourse” (Geise, 1991, pp. 593-594). While Gödel’s Theorem is about arithmetic and formal statements and language can be ambiguous in comparison, Geise’s point is that statements are associated with concepts that are historically and socially developed within, in this case, academic disciplines (1991). Research that crosses disciplines must deal with the challenge of “proof” from multiple points of view. Each concept has its own explanatory focus and meanings are understood in empirical, historical, and theoretical contexts: “Works mostly within one perspective tend to introduce concepts from other perspectives, which they do not themselves theorize, in order to deal with gaps or silences within their own framework” (Alford & Friedland, 1992, pp. 28-29).

In line with Turing and Gödel, axiomatic consistency and prescriptive completeness do not necessarily guarantee predictive outcomes. Schulman (1989) makes this point: “The question of design ‘completeness’ in an organizational context hinges upon the degree to which a given design establishes limiting conditions that really do bind, in an anticipated way, the patterns by which organizational structures can interrelate and, subsequently, the pattern that organizational behaviors can assume” (p. 40). In response to unsatisfactory results in prescriptive designs, organizations are sometimes perceived as open systems that are partially prescriptive but more importantly allow for a “reactive capacity for foresight” (Schulman, 1989, p. 41). However, this approach underestimates the type of organizational complexity that results in cooperation, frustration, or paradigmatic hegemony.

Turing worked to strengthen his case by proving that many complicated mathematical calculations could be accomplished on Turing machines and developed an idea to test the validity of his results on what is called the Universal Turing Machine¹⁴ (M. Davis, 2000, pp. 163-164). This Universal Turing Machine, represented at the top of the diagram in Figure 14, can simulate other Turing machines as well as geometric and scale frustration. Universal Turing Machines “can thus be considered the most complex of all systems” (Binder, 2008, p. 322). Philosophically what Turing did was to break down the conceptual divisions between machine, program, and data by demonstrating the fluidity between these concepts – a result that forms the basis of modern computer practice (M. Davis, 2000, p. 165).

Binder (2008) describes how these three examples of dynamical frustration are related:

These three manifestations of dynamical frustration are related. Certain cellular automata and maps are capable of universal computation (Koiran & Moore, 1999, p. 1999), indicating that even simple dynamical systems can be arbitrarily complex. Multiagent models can generate energy landscapes for their own agents. Chaotic systems can go on forever, but some complex systems better stop: the objective of the immune system is to quickly achieve homeostasis after an external invasion; successful Turing computations halt.¹⁵ (p. 322)

Yet while frustration is common among complex systems, nonlinearity, dimensionality, and connectivity are additional factors to consider when characterizing and analyzing complex systems (Binder, 2008, pp. 320-321). In addition, “the task of quantifying this concept in a way that includes its three (so far) manifestations is daunting” (Binder, 2008, p. 320). The field of complex systems is rich and emerging and holds promise in terms of understanding highly complex problems such as the one

¹⁴ Turing used his concept of the Universal Turing Machine to prove that there is no algorithm of any kind (not just a Turing Machine) for the Entscheidungs problem (M. Davis, 2000, p. 163).

¹⁵ In Turing’s proof he designed a set of statements that halted and demonstrated, through a diagonal method of proof, that he could always construct a statement from the set of statements in which the Turing Machine did not halt.

addressed in this research. It may turn into what Binder calls “the queen of all sciences, the science of synthesis and surprise” (Binder, 2008, p. 321).

Computational Frustration: Systemic Characterization of the Framework

The environment from which the framework for the analysis of politics in enterprise transformation is derived is characterized by dynamic and emergent behaviors. What emerges – cooperation, frustration, or paradigmatic hegemony – is a result of the interactions of the specificities and can only be understood in terms of possibilities. In the previous paragraphs I have characterized the complex nature of politics in enterprise transformations. Particularly evident in computational manifestations of dynamical frustration is the emergence of higher-level entities that emerge from lower-level parts. Analogously, what I define as symbolic technologies¹⁶ emerge from lower-level parts to create shared meaning and act to facilitate higher-level organizational knowledge sharing activities. Hence, by its relationship to created and shared knowledge, symbolic technologies have much to do with politics in terms of who has access and the means to use the created knowledge. Yet we do not have the vocabulary to broadly put the topic of symbolic technologies, let alone complexity in any useful form, on the organizational “board table” for discussion and debate. Cognitive science is making advances in this area.

The invention and diffusion of symbolic technologies is a phenomenon that is creating opportunities to develop powerful frameworks for analysis that use completely new paradigms of knowledge creation. Symbolic technologies include everything from maps, circuit diagrams, mathematical and musical notations, and the spectrum of things that can be done with computational power (Donald, 2002, p. 2002). Though the purposes of particular symbolic technologies vary, what is common are representations of shared meaning that are captured in various media creating a “vast cultural store-house and an external symbolic storage system that serve as a permanent group memory” (Nowotny, 2005, p. 18). Furthermore, Nowotny (2005) explains that culture viewed in

¹⁶ Adapted from: (Donald, 2002)

this way is “the sharing of meaning and the need to communicate, which leads to an increase in complexity, since it enables the linking together of many individual minds which are always socialized minds, interdependent with each other” (p. 18).

A critical analysis of existing and emerging symbolic technologies is needed to understand potential effects on systemic characterizations of the framework for the analysis of politics in enterprise transformation and is beyond the scope of this research. As information and communication technologies expand, we experience an exponential leap in knowledge creation through symbolic technologies. A critical research approach is used in a large part because society has begun to speak back to science, governments, companies, leaders, and organizations with an exponentially increasing dialogue “fueled by emancipatory and participatory demands” (Nowotny, 2005, p. 25). Hence, there is an increasing dependence of science, governments, organizations, and leaders on society’s perception of legitimacy and trust. What we are experience is a rapid increase in the collision of knowledge domains resulting in shifting states of existing and emergent behaviors which may be cooperative or irreconcilable and where the status quo is more likely to be the coexistence of opposing tendencies. In other words, we experience a rapid increase in complexity.

ONTOLOGY OF COMPLEX ADAPTIVE SYSTEMS

This section examines the potential fallacies in multi-level analysis, ontological issues associated with complex adaptive systems, and the particularism-universal debate. The focus of the section is the nature of the subject studied and the limits of knowledge about politics in enterprise transformations. The knowledge domain is abstracted from reality on three levels: systemic, situational, and structural. Each level corresponds to a different domain for analysis. Yet, as the phenomenon studied is a complex adaptive system, the boundaries can be “fuzzy” as interconnected elements have the capacity to change and learn from experience. I discuss these limits of knowledge and the adaptive nature of the phenomena studied below.

Potential Fallacies in Multi-Level Analysis

Rousseau (1985) suggests that a lack of sensitivity to levels in analysis could lead to various problems including the cross-level fallacy. The cross-level fallacy occurs when a researcher assumes that there is the same relation at multiple levels. The assumptions made among levels of analysis, whether they be from individual, organizational, or societal views, is important for understanding the meaning of concepts and conclusions (Alford & Friedland, 1992, p. 3). The concept of levels generally refers to a hierarchical relationship among things. Rousseau describes levels as qualitatively different entities (e.g., individuals, organizations, and echelons) that are concerned with hierarchical sub-groupings within a level such as position in the hierarchy (J. G. Miller, 1978; Rousseau, 1985, p. 3).

Generalizations are generally made at the focal unit: individual, work group, department, or organization. Within a focal unit there is a further distinction between level of measurement (unit associated with the data collected) and the level of analysis (unit associated with the data for testing and analysis) (Rousseau, 1985, p. 4). Ployhart considers levels that include culture, nation, industry, organization, department, group / team, job, individual, and task (Ployhart, 2004, p. 124). In enterprise transformations there is a high degree of cross-level movement that is contextual and emergent. Ployhart found that contextual movement tends to be top-down and is faster than emergent movement which tends to be bottom-up through compilation (dispersion) and composition (consensus) (Ployhart, 2004, p. 126). Not surprisingly, analysis on both levels reflects the bias inherent in the concept of level used.

Wimsatt (2007), in his book *Re-Engineering Philosophy for Limited Beings: Piecewise Approximations to Reality*, argues that phenomena should be studied with a minimal amount of reductionism in order to understand how processes, entities, and events articulate at different levels. He examines levels of organization:

...levels of organization are a deep, non-arbitrary, and extremely important feature of the ontological architecture of our natural world, and almost certainly of any world that could produce, and be inhabited or understood by, intelligent beings...Levels and other modes of organization cannot be taken for granted, but demand characterization and analysis...They are constituted by families of entities usually of comparable size and dynamical properties, which characteristically

interact primarily with one another, and which, taken together, give an apparent rough closure over a range of phenomena and regularities. (Wimsatt, 2007, pp. 203-204)

To Wimsatt, conceptual schemes are equivalent to levels situated in their contexts – we live with things such as people, computers, chairs, and desks and do not typically interact with memory chips or a person’s cell (Wimsatt, 2007, p. 204). This less than concrete and more than fluid concept of levels more appropriately reflects the reality of the dynamics found in enterprise transformations.

Methodological Approaches

Sousa-Poza and Correa-Martinez argues that “Since the systemic perceptions are only an approximation of the real domains, a strong distinction must be made between the methodological structures as it is applied in analysis with the matter it is applied in the design” (2005, p. 2748). In the case where the domain for analysis is highly representative of reality, systemic perceptions of analysis and design are quasi-interchangeable; however, emergent behaviors such as those found in transformation are limited (Sousa-Poza & Correa-Martinez, 2005, p. 2748). When the possibility of emergent behaviors is high (transformational contexts), the domain of systemic perception is more an abstraction of reality, hence systemic perceptions of analysis, where analysis is used to “generate knowledge from or of a reality,” may result in errors in analysis such as oversimplifications of what is complex behavior (Sousa-Poza & Correa-Martinez, 2005, pp. 2748-2749). In this case, the authors recommend the application of five states in a systemic analysis of the complex situation (Sousa-Poza & Correa-Martinez, 2005, pp. 2747-2748).

Methodological Structure

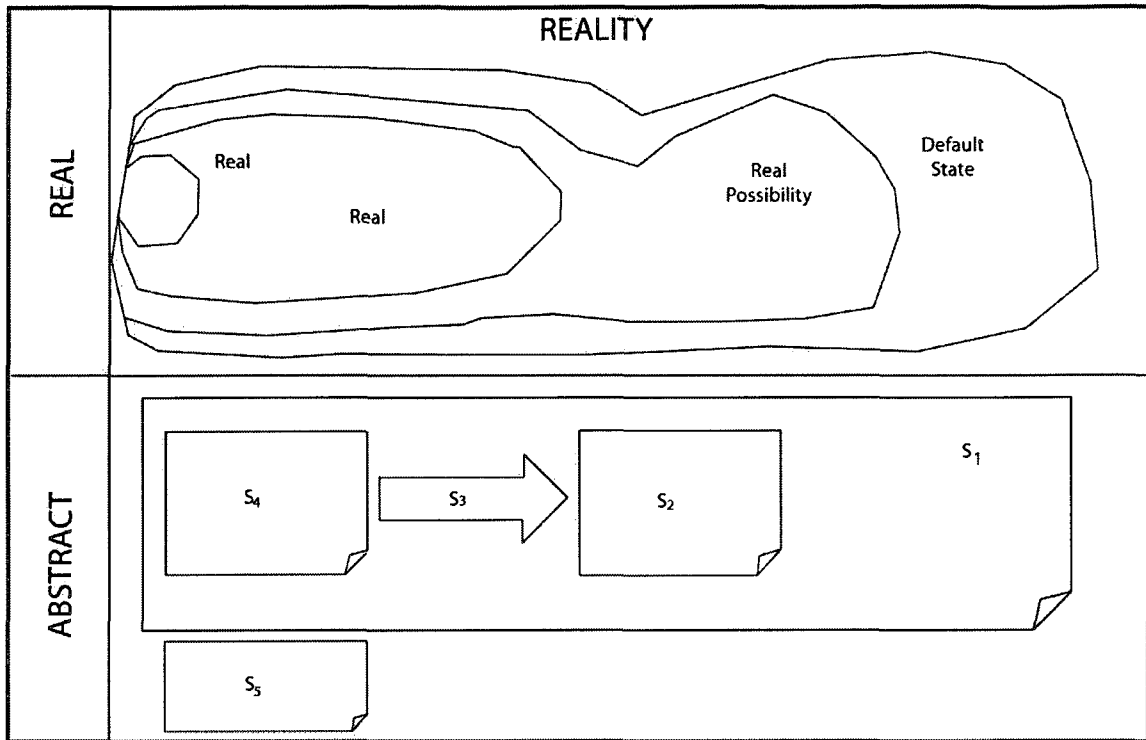


Figure 15 Methodological Structure (adapted from Sousa-Poza, 2005)

Figure 15 is an illustration of this methodological structure. In enterprise transformation problems, the domain for systemic analysis is an abstraction in accordance with S_1 through S_5 in Figure 15. Dynamic emergent behavior is possible both internally (form or nature) and externally (competition and threats). Table 22 considers this set of states to describe the development of understanding within my research.

Table 22 How Knowledge is Developed and Used (adapted from Sousa-Poza, 2005)

State	State Description	Research Description
S ₁	The default state—general statement to establish the boundaries of the analysis	Enterprise as a complex, adaptive system displaying characteristics of geometrical frustration
S ₂	Feasible outcomes based on concept in S ₁ and the barriers that are present in the problem	The development of a paradigmatic model and theory that comprises the theoretical framework
S ₃	Incorporates the transformation process from the present state to desired state. For complex situations, this is treated as bounded movement, or a set of criteria for transformation	Transformation occurs through the dialectic from which emerge modified or new concepts. Problem definition and solution development revolve around the dialectic
S ₄	Present reality as it would be perceived within the construct defined in S ₁	Socially constructed identities, concepts, problems and solutions
S ₅	Representation of reality as it would be perceived using an alternate philosophical base	Transformation as viewed from a purely rational actor model with a dominant paradigm reflecting a bureaucratic perspective

Perspectives and Reality

Consider the state S₁, the default state that establishes the boundaries of analysis. This study centers on the dialectic analysis of concepts as located within the context of the perspective in which they are used to explain phenomena as they abstract from reality in order to connect the historical and theoretical use of concepts to political behavior and practice (Alford & Friedland, 1992, p. 2). Perspectives are formed from systemic, situational, and structural contexts, and therefore, have a quasi-subjective character. Yet there is a reasonably well-defined class of problems for which the dialectic analysis of concepts is useful and appropriate; a class of problems where the outside information is less relevant to the analysis. Indeed, the simpler the system, the less need there is to account for a variety of perspectives (Wimsatt, 2007, p. 228). Wimsatt (2007) calls these perspectives sections (vice actual levels) that reflect a subjective niche or *Umwelt*:

...views chosen by architects, engineers, and anatomists to give particularly revealing aspects of their complex structures; views that can cross-cut one another in various ways, and at various angles; views that are individually recognized as incomplete; views that may be specialized for or better for representing or for solving different problems; and views that (like perspectives) contain information not only individually, but also in how they articulate. (p. 231)

Perspectives can emerge from these simple structures with the introduction of agency and causality – two discriminating factors in conceptualizations of power as described in Chapter 2.

Wimsatt argues that to judge a perspective to be real is to practice *verstehen*, or mind reading and whole body imitation (from the above section on conceptualization), and judging it to be rational or explicable from the perspective (Wimsatt, 2007, p. 237). To a large degree this is a useful approach to the analysis of political behavior as evidenced by the examples in Chapter II (Alford & Friedland, 1992; Allison & Zelikow, 1999). The dialectic analysis used in this research is reflective of this research perspective. The challenge in enterprise transformations is the possibility of emergent behaviors that break down perspectives. According to Wimsatt (2007), as perspectives are challenged as the enterprise is faced with stimulus that fundamentally changes the status quo, boundaries, legitimacy, and methodologies are challenged:

This breakdown of boundaries induces competition among different methodologies associated with different perspectives, and so we should expect that methodological disagreements would proliferate, along with disputes about how to fragment systems into parts and how best to define key terms. As the boundaries break down this far, not only is it true that others' perspectives intrude on the one you wish to argue for, but also that your perspective can seem to reach legitimately to the horizon. Paradoxically, as the perspectives weaken in their own domain, they don't retreat, like good scientific theories, but their generality appears to increase without bound...At that point, philosophers may rush in where scientists fear to tread – or perhaps they have done so and stubbed their toes! Here, if anywhere, philosophers may be useful if they know the lay of the land. (p. 238)

At these points of emergence, practice is often designed to eliminate the complexity in these environments and polarize the debates through character attacks and arguments on trivial matters that do not address fundamental issues. Wimsatt (2007) characterizes the situation well:

...you'd better get an overall sense of the geography before you decide on your colonizing strategy. This has a lesson as well, of which eliminativists should be aware: you don't make friends with the natives (folk) by denying their legitimacy (psychology), and you can't tell what's in the territory without a native guide. You can play imperialist without heeding these warnings, but it usually requires more resources, costs a lot more,

and takes a lot longer. And you may end up having to grant them autonomy anyway! (p. 240)

The Particularism-Universalism Debate

Matthews (2005) describes universalism as the tendency of a nation to use rules, laws, and contracts “equally to all in all situations” (Matthews, 2005, p. 3). This position is contrasted with the particularist position which places the emphasis on the uniqueness of situational context and relationships (Matthews, 2005, p. 4). He describes the findings by Trompenaar (1997) that indicate “people from northern European and North American cultures are more likely to be on the universalist side of the scale, whereas nations like China, Indonesia and Japan are more likely to lean towards the particularist side of the scale” (Matthews, 2005, p. 4). Trompenaar argues that a culture of dialectics, that is, one that orients cultural contexts in relation to each other instead of opposing, is the most successful characteristic of effective change programs (1996, p. 54).

The debate also exists in moral theory. Advocates of the particularist position argue that individuals live in the context of communities, families, and local economic and governmental situations; hence, moral principals are community-centric (sovereign-centric and solidarity are other examples) (Spicker, 1994, p. 5). Proponents of the universality position may say that universal rules are necessary to ensure equal distribution of goods and services and that particularist positions are discriminatory (Spicker, 1994, p. 5). In terms of critical theory, Spicker characterizes the debate as one with Habermas’ universalist view that those affected by moral norms (equality, social justice) must agree with them and the communitarian view that such norms must be drawn from social contexts (Spicker, 1994, pp. 6-7; Staats, 2004, p. 587). Spicker points out that a weakness in the communitarian debate is that it assumes the status quo is preferable unless an argument can be made to the contrary (Spicker, 1994, p. 16). For enterprise transformation problems, this weakness is an important one to consider. Universal rules are designed to drive change, standardize, or ensure fairness but, as we have seen in geometric scale frustration, the efforts can be opposed by communitarian arguments because people live, work, and are educated in social contexts with structures that support and evolve in that context (Spicker, 1994, p. 17). Spiker argues, in what is

a position relevant to my research proposal, that power structures tend to limit people and there is a need for mechanisms that empower people to gain mastery over their lives – so that they have the opportunity to participate in democratic processes, have access to resources, have the ability to educate themselves and their children, and have the capability to protect their situations (1994, p. 18).

A significant challenge for researchers who are studying complex situations where there are both particular and universal characteristics is the ecological fallacy. In this fallacy, one draws inferences about individual relationships from knowledge of the aggregate level correlations (J. R. Cole, 1989, p. 52). A great example of this can be found in Cole whose prior work on the reward system in United States academic science concludes that “science closely approximated its universalistic ideal; that to a large extent rewards were meted out in accord with demonstrated role performance” was flawed (J. R. Cole, 1989, p. 51). He states “the distinction was never drawn properly in the older work between universalism as it operates on an institutional level, that is, at the level of the social system of science, and particularism at the individual level of analysis” (J. R. Cole, 1989, p. 51). He finds that once the initial cut is made based on universal criteria, further decisions are influenced by institutional sorting and social networks – network associations, old-boy networks, friendship patterns, strong and weak ties, institutional loyalties, and authority relationships (J. R. Cole, 1989, pp. 52-53). To draw the linkage between the individual level of analysis and analysis at the level of the social system of sciences, he uses analogies based upon the uncertainty principle in physics. Cole argues that “The link can be found between the idea of random process at a substructural level and order at the emergent level of analysis” where substructural level phenomena are pairings made “between aspirants, applicants and alleged perpetrators and judges, juries and gatekeepers” (J. R. Cole, 1989, p. 55). He states, “if the bonding involves homophily and concordance, the probability of success is greater because particularism has favored the aspirant...[w]hen the bonding involves prejudice or discordance, the probability of success goes down for the aspirant and goes up for some other competitor” (J. R. Cole, 1989, p. 56). Cole suggests the use of universal rules for the first cut and lottery-type rules for awarding awards as a way to increase the fairness of the process. However, he

acknowledges the negative implications of this latter approach (J. R. Cole, 1989, pp. 73-74).

Other researchers have proposed solutions to this dilemma. To develop a social paradigm, Schilcher describes a combined communitarian and liberal value approach where there is more personal autonomy in states with strong social orders (Japan) and more social order with individualistic states (United States) combined with a theory of flexible private rights (Schilcher, 1999, p. 429). Shin argues for an alternative approach through the development of theories (or frameworks) “by abstracting directly from given comparative settings by limiting the number of countries (or country groups) for comparison” (2005, p. 1112). Other researchers examine different frameworks for understanding our cultural differences such as Gopalan and Thomson’s work on a conceptual framework for cross-national managers which uses cross-cultural ethics literature and attribution theory to develop six propositions describing the relationships between national culture, attributions, and ethics (2003, pp. 325-326).

The implications of the particularism-universalism debate required that I develop a robust framework that could handle universal (systemic / societal) and particular (situational / individual) phenomena. The theoretical framework developed provides flexibility to specific contexts in the domain of analysis. For example, within the enterprise under consideration there may be levels or units where there is strong instrumentation that may need more participatory processes in order to create the conditions for emergent behavior, but chaotic processes in another level depends upon the former. Finally, my research has to avoid errors in inferences made on aggregate theoretical constructs to avoid the ecological fallacy.

The study of politics, power, and the science of influence offers major epistemological, ontological, and methodological challenges to researchers who study the transformation of enterprises. The process of changing the form, nature, or function of a complex system such as an enterprise is ill-suited for the type of local interpretive epistemological approaches that particularism suggests (Bell, 2004, p. 2). On the other hand, universal epistemological approaches that abstract from particular social contexts are prone to philosophical incoherence (Bell, 2004, p. 2) and in practice can be responsible for instrumental and manipulative policy (Fay, 1975, pp. 38-43) and

excessive bureaucratic hierarchy (Iggers, 1972, p. 1972). Yet both are needed as politics, power, and influence are largely about the fabric of interactions at multiple levels in the enterprise (Handy, 1993, p. 123).

RESEARCH METHODOLOGY

This research uses a dialectical analysis of concepts located in their theoretical perspective. This methodology can be found in Alford and Friedland (1992), Skinner (1978b), Mitroff and Linstone (1993), and Allison and Zelikow (1999). It is chosen to address the primary difficulties above – the fragmentation and continually shifting states in enterprises undergoing fundamental change. In such an environment, modified or new concepts are introduced amplifying friction across the enterprise and with enterprise partners. Concepts such as causality and agency are derived from the literature based on an historical force of ideas behind the concept.

A second level of theory, critical ideology, is used in this analysis of concepts. Critical ideology has its roots in critical theory which I discuss in detail in this section. The application of this second level of theory reduces the literature on politics, power, influence, and enterprise transformation to a smaller body of scholarly work used in this research. The concepts are then analyzed for how they are interpreted across autocratic, bureaucratic, pluralistic, and cognitive perspectives. The concepts taken together across these four theoretical perspectives comprise the paradigmatic model. The paradigmatic model and associated theory comprise the Enterprise Political Framework (EPF).

In Chapter II, the volume of literature used in this research is reduced by using an implied theory of critical ideology that places both ideas and concepts both in their historic and political contexts (Alford & Friedland, 1992). Critical ideology provides a guide for the choices of what to include and exclude in the literature review in terms of concepts and ideas. To better define the term *critical ideology*, I first examine what is meant by critical research and then focus on analysis of ideologies.

Critical research approaches are sensitive to particular social contexts such as commodity exchange dominance over social relations, freedom of oppression through understanding and access to knowledge, fairness, alienation, and democracy (Brookfield, 2005, pp. 23-29). A critical theory approach to the study of politics, power, and influence

can be characterized by critical reflection of the human condition across systemic, situational, and structural contexts (B. L. Murphy, 2001, pp. 65-66, 78-69); hence, this approach can be useful in resolving the epistemological paradox between particularism and universalism apparent in the process of enterprise transformation. The organization and design of interactions and power structures to transform the enterprise is continuously evaluated by a process of critical reflection of the social values created or affected by the instrumentation.

The nature of reality derived from critical research approaches is historical realism that is shaped over time by social, cultural, political, economic, gender, and ethic values (Guba & Lincoln, 2005, p. 195). In particular, critical theory draws from contingency and fallibility in pragmatism insisting that both theory and practice are provisional and subject to reformulation (Brookfield, 2005, p. 34). Frequently the goals of managers of enterprise transformations, as well as their reward systems, are based upon measured progress and upon achieving projected “transformational” goals within cost, schedule, and technical risk. This practice and reward system reinforces a belief that valid knowledge is rational knowledge characterized by general laws, prediction and control, empirical testing, and value neutrality (Mingers, 1980, p. 42). This assumption of value neutrality and rational action can be problematic in enterprise transformation analysis by avoiding the issues associated with the uncertainty and ambiguity underlying many values and situational contexts (Morgan, 1998, p. 140). An example of insensitivity to situational context is the cross-level fallacy which occurs when one incorrectly generalizes across levels of analysis (Ployhart, 2004, p. 129). Levels in this context include culture, nation, industry, organization, department, group/team, job, individual, and task (Ployhart, 2004, p. 124). In enterprise transformations there is a high degree of cross-level movement that is contextual and emergent. In the former, movement tends to be top-down and is faster than emergent movement which tends to be bottom-up through compilation (dispersion) and composition (consensus) (Ployhart, 2004, p. 126). Critical research approaches are useful in studies that have a high degree of cross-level movement because the approach is sensitive to the human condition at multiple levels and through the many perspectives described above.

There are a diverse number of approaches to critical research in organization and management studies. Fenwick (2004) notes the common themes associated with critical research which Antonacopoulou (1999) synthesizes: “providing voice for the repressed and marginalized, exposing assumptions and values, revealing the use of power and control, and challenging inequities and sacrifices made in the name of efficiency, effectiveness, and profitability through a self-reflexive critique of rhetoric, tradition, authority, and objectivity” (p. 195). Brookfield focuses on a central concern “to democratize production to serve the whole community, and...to reconfigure the workplace as a site for the exercise for human creativity” (Brookfield, 2005, p. 5; Fenwick, 2004, p. 196). In this work, I define research as critical when it is:

- Concerned with conditions of human existence which facilitates the realization of human needs and potentials
- Supports a process of critical self-reflection and associated self-transformation
- Sensitive to a broader set of institutional issues relating particularly to social justice, due process, and human freedom
- Incorporates principles of fallibility and self-correction (growth of knowledge through criticism, i.e., the principle of fallibilism)
- Suggestive of how the critique of social conditions or practices could be met (as a safeguard against unrealistic and destructive negativism)
- Incorporates explicit principles of evidence given (or an explicit truth theory) for the evaluation of claims made throughout the research process (H. K. Klein, 2004).

Critical research approaches are important for what they reveal about power, politics, and opportunities for change. For example, in both education and human resource development (HRD), critical research approaches are used to continually question assumptions behind planned and existing research: such as what is taught to who and why with an emphasis on human development. The latter two areas have implications for the way enterprises promote and train individuals. An example of the type of finding a researcher can expose is provided by Fenwick (2004, p. 195). The

author (Fenwick, 2004, p. 1945) cites a study that examines 600 articles presented to the Academy of Resource Development over the period from 1996 to 2000 and finds:

HRD focuses little on issues of social justice in the workplace or larger social context. Women's experiences as well as those of other diverse groups is [sic] ignored, as are asymmetrical power arrangements. Gender/race/ethnicity is not used as a category of analysis – even when data are collected by gender. Organizational “undiscussables” such as sexism, racism, patriarchy, and violence receive little attention in the literature yet have considerable impact on organizational dynamics. Finally, HRD research has only weakly advocated change.

The authors concludes that there is a need for increased critical perspectives in human development research to better understand power relationships in organizations.

The term *critical ideology* is used to distinguish it from critical theory which is discussed in detail below. This distinction is an important recognition that there are multiple theories that interact in enterprises; enterprises under transformation are assumed to be highly contested terrain. Critical ideology research provides critical analysis from an ideological point of view. Ideologies include the “social, political, cultural, and intellectual *mentalité*, that shapes the perception, i.e., the construction of reality” (Frakes, 1989, p. 6). In addition, a critical conception of ideology recognizes that discourse itself arises from the view that social relations exist and evolve through communicative sign systems (e.g., language) from which subjectivities and identities are constituted (Hier, 2002, p. 316). Put another way:

...at a general level, “discourse” is typically adopted to refer to the linguistic if not semiotic dimension(s) of everyday living through which the organization and understanding of an individual's experiential consciousness may be realized, whereas “ideology” is invoked in an effort to connect those lived experiences with a broader material existence in such a way as to make existing relations appear not only natural but inevitable. (Hier, 2002, pp. 316-317)

The critical conception of ideology has been oriented towards explaining how forms of consciousness generated in and through the lived experiences of dispersed social groups contribute to the maintenance of hegemonic relationships. What the critical approach adds to otherwise undifferentiated concepts of ideology, then, is the criterion of directionality; the stipulation that ideology always works in the interests of some delimitation of others. (Purvis & Hunt, 1993 as cited in Hier, 2002, p. 317)

Hier (2002) draws additional insights into the interconnectedness of ideology and discourse through Laclau and Mouffe's (1985) notion of articulation:

...articulation is used to displace the view that there exists a pre-given class-based ideological formation (variations of which are constituted as 'hegemony') which exists for, or at the exclusive convenience of, the dominant class/group. Laclau and Mouffe (1985) maintain that all forms of knowledge are discursively constructed within interim articulations, and it is this configurational character of articulation which allows them to move beyond the view that ideology is somehow fixed, fast and frozen. (p. 318)

By using this critical conception of ideology, concepts and theoretical perspectives used in the research are discriminated from less well-developed concepts and theoretical perspectives found in the literature. As described in Chapter II, the requirement that concepts and their associated theoretical perspectives have articulated systemic, situational, and structural contexts allows for a rich analysis of how power and politics operates in enterprises in transformation. The "configurational character of articulation" is preserved within the framework for analysis.

An understanding of critical theory is a useful foundation from which to examine the existing state of critical research in systems theory. Recall systems theory is used in this research but it is not explicitly designated as a literature review area due to the broad array of disciplines from which work is incorporated into the analysis. As described before, critical theory is an interpretive theory that is validated by the extent to which application of the theory opens up new possibilities for behaviors and actions that are themselves verified in terms of democratic inquiry (Bohman, 2005). According to Brookfield (2005), the nature of inquiry is one that explores "how to perceive and challenge dominant ideology, unmask power, contest hegemony, overcome alienation, pursue liberation, reclaim reason, and practice democracy" (p. 2). The theory is motivated "by the effort to abolish the opposition between the individual's purposefulness, spontaneity, and rationality, and those work-process relationships on which society is built" (Horkheimer, 1972, p. 210). Critical theory is often used as a theoretical framework to understand internal contradictions inherent in mixed capitalistic and bureaucratized systems. The theory allows for critical examination of existing and potential power relations with a focus on emancipating individuals from situations that

clash with their theoretical perspectives. The following sections describe the roots of critical theory and how a narrow view of the theory has been incorporated into systems theory.

Historical Roots of Critical Theory

As mentioned in the previous section, critical ideology is derived from critical theory but is distinguished to make the point that the term *theory* is not theory-free any more than a concept is defined by a single theoretical interpretation (Alford & Friedland, 1992). It retains the social, historic, and political awareness found in critical theory.

Critical theory has its roots in the Frankfurt School and has evolved in various forms. According to Horkheimer, critical theory must be simultaneously explanatory, practical and normative; “it must explain what is wrong with current social reality, identify actors to change it, and provide both clear norms for criticism and achievable practical goals for the social transformation” (Bohman, 2005, p. 2). Typically, but by no means exclusively, historic accounts of critical theory reference post-Marxists streams of studies that are concerned with problems seen associated with capitalist society. As Gephart (1993) explains:

Marx “argued that the economic structure of society exploited nature, produced surplus value appropriated by capitalist, and, hence, created an increasing disparity between wage labor and capital. Marx hypothesized that this disparity would lead to a revolution, which would replace the dictatorship of the bourgeoisie with a dictatorship of the proletariat, eventually evolving into a communist (utopian) society where each person would contribute to society, and society would provide all individuals’ needs. (p. 798)

The social challenges described by critical theory are not exclusively due to a capitalistic society, but are due to a combination of capitalistic and pluralistic tensions where universal rules, regulations, rule of law, and institutional agendas shift between privileging each view. In the United States, we have neither a perfect Hayekian society nor is it reasonable to expect the emergence of a utopian society that fully embraces the ideal speech situation found in Habermas (1984). Habermas (1984), noted for second generation critical theory, develops a less skeptical form of critical theory that moves away from the transcendental approach of Horkheimer and Adorno (1972) to a more

naturalistic direction. Habermas (1984) emphasizes cognition, speech, and action and “calls for particular ‘reconstructive sciences,’ whose aim it is to render theoretically explicit the intuitive, pre-theoretical know-how that underlies such basic human competencies as speaking and understanding, judging, and acting” (Bohman, 2005, pp. 7-8). This theory of communicative action considers a rational model that is primarily concerned with “how speaking and acting subjects acquire and use knowledge” (Habermas, 1984, p. 11). Habermas examines the effect ideology has on speech – the ways in which “linguistic-symbolic meanings are used to encode, produce, and reproduce relations of power and domination” (Bohman, 2005, p. 9).

Second generation critical theory tends to be abstract and philosophical, making it difficult to develop a practical application of the theory to research methodologies. Forester loosens the tie to ideal situations of conversation and undistorted communications and “advocates the study of communicative action in terms of the production and reproduction of ideas, norms, trust and attention” (Alvesson & Sköldbberg, 2003, p. 122). This more abstract form of the theory is important as critical theory evaluates communicative practices and politics to make explicit the power relations and configurations of meaning that emerge in an organizational setting forming the basis for alternative organizational realities. The exposure of power relations reveals what minimal power structures might be necessary to move the transformation of the enterprise forward.

Critical Theory, Systems Theory, and other Paradigms of Inquiry

The level of complexity in politics – pluralistic goals, losing to win, and other complex social interactions – is well suited for a critical research approach. In critical theory, the notion of hegemony plays a strong role in understanding domination through the use of institutions such as media (Kincheloe, 2008, pp. 108-109). Critical theory is well adapted to consider broader contexts than “the more tightly empirical research advocated by grounded theory and ethnomethodology” (Alvesson & Sköldbberg, 2003, p. 130). Alvesson and Sköldbberg (2003) recommend that researchers use existing empirical studies and examples to interpret and reinterpret in the context of the research. An example is using critical theory to counteract unconscious social coding: the decision to

study an issue in leadership may result in the reproduction and reinforcement of “leader” categories, interests, and positions; hence, contributing to the institutionalization of leadership as such (Alvesson & Sköldbberg, 2003, p. 129).

In the form of critical social inquiry, there are striking similarities between critical theory and American pragmatism (Bohman, 2005). Also, in pragmatist fashion, there is a distinctive form of rationality in Habermas’ theory of communicative action which “suggests that the theory could be developed through explicating the general and formal conditions of validity in knowing and reaching understanding through language” (Bohman, 2005, p. 3). Critical theory in systems thinking is explored in Mingers (1980), Valero-Silva (1996), Flood and Romm (1996), Jackson (2003), and Checkland (2004).

Jackson (2003) notes that critical theory proponents argue that Soft Systems Methodology (SSM) does not adequately address fundamental conflicts of interest since it builds a consensus world view. Additionally, critics say SSM promotes the idea that conflicts can be “papered over through a debate structured around conceptual models” and “exaggerates commitment to participation as the appropriate and apparently sufficient mechanisms for achieving mutual understanding on purposes” (M. C. Jackson, 2003, p. 204). Jackson takes a narrow view of critical theory using Habermas’s theory of communicative action for the totality of critical theory. He defines *critical* to be the act of “reflecting on the presuppositions that enter into both the search for knowledge and the pursuit of rational action” (M. C. Jackson, 2003, p. 215). However, critical theory as it is used is also an interpretive theory that is validated by the extent to which application of the theory opens up new possibilities for behaviors and actions. To compare critical theory with Kant and Popper, as Jackson does, is to place critical theory in the rationalists’ camp. A rationalist position requires at least one of the following: “(1) a privileging of reason and intuition over sensation and experience, (2) regarding all or most ideas as innate rather than adventitious, (3) an emphasis on certain rather than merely probable knowledge as the goal of enquiry” (Lennon & Dea, 2007, p. 1). Critical theory as used in this research embodies some elements of rationalism when examining communication design but for the most part exhibits pluralistic and pragmatic characteristics.

In comparing SSM and critical theory, Mingers (1980) finds that both are concerned with the problem of human action and concludes that technical rationality and hard systems approaches inadequately address complex problems. Both reject the separation of rationality and values and both use rational communicative action in an attempt to bring both together. Mingers (1980), like Jackson (2003), narrowly defines critical theory: “Habermas’s communicative competence would enable social actors to perceive their social conditions in new ways, enabling them to decide to alter it; Checkland’s [SSM] methodology aims at consensual debate which explores alternative world views and has a criteria of success “its usefulness to the actors and not its validity for the analyst” (as cited in Checkland, 2004, p. 283). In terms of differences, Mingers (1980) writes that critical theory has a more political stance than SSM, the latter lacking a theory of “how the structure of society – especially its stratification – might limit fundamentally the range of debate about change” (as cited in Checkland, 2004, p. 283). To Checkland (2004), “social reality is the ever-changing outcome of the social process in which human beings, the product of their genetic inheritance and previous experiences, continually negotiate and re-negotiate with others their perceptions and interpretations of the world outside themselves” (pp. 283-284). Checkland finds an examination of similarities and dissimilarities between critical theory and SSM useful in terms of understanding the degree to which SSM embodies elements of interpretive sociology (Checkland, 2004, p. 281).

Valero-Silva (1996) provides a critique of Critical Systems Thinking (CST) in light of claims that CST has its roots in the ideas of Habermas and Foucault and that CST is an effective method for analyzing strengths and weaknesses of existing methodologies. In the former claim, CST can be traced back to three sources: “a growing critical awareness of the strengths and weaknesses of individual systems approaches; an appreciation of the need for pluralism in systems thinking; and the rise of emancipatory systems thinking” (M. C. Jackson, 2003, p. 278). As the theory evolved, CST developed along the lines of five main commitments¹⁷: “critical awareness; social awareness;

¹⁷ Valero-Silva narrows this list down to three commitments to emancipation, critical awareness, and methodological pluralism (Valero-Silva, 1996, p. 539).

pluralism at the methodological level; pluralism at the theoretical level; and emancipation” (M. C. Jackson, 2003, p. 281). The type of pluralism found in CST evolved from analysis from the view of management to looking at problem situations from a number of perspectives supported by combinations of systems methodologies (M. C. Jackson, 2003, p. 279). The commitment to emancipation grew out of the need for systems approaches that examined “coercive” contexts where the application of power seems necessary to approach at least a limited consensus (M. C. Jackson, 2003, pp. 280-281). Social awareness examines the situational, systemic, and structural circumstances that lead to the adoption of particular methods and theories. Moreover, social awareness motivates users of methodologies to consider the consequences of the application of the methods (M. C. Jackson, 2003, p. 282).

Theoretically, the assumption that irreconcilable systems methodologies could be employed in a complementarist way lead to the problem that CST would have to have a privileged position above all systems methodologies (M. C. Jackson, 2003, p. 283). CST then evolved to define emancipatory commitment in terms of a broader agenda of human improvement, based in part on Habermas’ theory of technical, practical, and emancipatory human interests (M. C. Jackson, 2003, p. 284).

From the Foucaultian point of view, Valero-Silva (1996) examines the evolution of CST from the perspective of shared cultural practices that shape the design of modern society. He notes that this examination does not imply a normative assessment but rather a description of historical narrative (Valero-Silva, 1996, pp. 540-542). He also finds that Foucault’s ideas are concerned with developing a critical attitude of constant checking for alternative explanations rather than the translation of the ideas into a methodology (Valero-Silva, 1996, pp. 540-542). A Foucaultian critique differs from a critique based on the ideas found in Habermas in several ways. Foucault does not focus on freeing individuals from power relations (which will always exist and change). Furthermore, Foucault is against understanding situations in universal terms. He considers his books “toolboxes” that are used to “demystify” “what is presented as logical, unavoidable or necessary” as well as “concepts such as improvement, methodology, consensus, ideal designs, participation, commitment, and, of course, the very idea of emancipation” (Valero-Silva, 1996, pp. 543-544).

Valero-Silva concludes that CST should branch in one of two different ways. The first is to continue to hold close concepts associated with critical theory such as emancipation, intervention, and complementarity while refining CST as a process for demystification (Valero-Silva, 1996, p. 539). As a second option, these concepts could be redefined to become more aligned with “managerial activities such as business consultancy and intervention, openly acknowledging an application of Critical Theory that is instrumental, if such an influence indeed exists” (Valero-Silva, 1996, p. 539).

Flood and Romm (1996) highlight six problems with CST described by Flood and Jackson (1991). The first is that ontological assumptions based in Habermas’ (1972) theory of knowledge-constitutive interests are central to Flood and Jackson’s methodological pluralism, but this assumption is incompatible with assumptions made by other systems paradigms (R. L. Flood, Romm, Norma R.A., 1996, p. 15). Furthermore, knowledge-constitutive interests, by virtue of the claim that “human beings have an interest in ‘predicting and controlling’ the natural and social worlds” perpetuates “the myth of the human domination of nature” which in turn “leads people to regard natural phenomena as ‘resources’ for control and consumption, often with unpredictable side effects” (R. L. Flood, Romm, Norma R.A., 1996, p. 15).

Flood and Romm’s third criticism is that discussions of “human emancipation” as distinct and separate from a commitment to emancipation in general separates humans from the environment and therefore has significant socio-environment effects (R. L. Flood, Romm, Norma R.A., 1996, p. 16). The fourth criticism is more of a call for clarity in the CST position on the assumptions of social evolution. Emancipation as a concept could be interpreted as tied to the idea of social evolution, the latter which is criticized for its lack of credibility (R. L. Flood, Romm, Norma R.A., 1996, p. 16). The fifth criticism is concerned with CST’s commitment to critical awareness. In Flood and Jackson (1991), the only systems-based methodology to deal with coercive situations is critical systems heuristics but in their commitment to critical awareness, their recommendations do not address situations where coercion is not present (R. L. Flood, Romm, Norma R.A., 1996, p. 16). The final criticism is taking the organizational boundary of the problem in question for granted, hence the effects from the organization’s agenda on the wider environment may not be taken into effect; who defines the boundaries of the problem is

an important methodological aspect to critical awareness (R. L. Flood, Romm, Norma R.A., 1996, p. 17). In response to these criticisms, Flood and Romm (1996) recommend that methods, such as those found in Ulrich (1993), that “support critical reflection on making boundary judgments should be used to enhance critical thinking up-front – both when we enter into interventions, and periodically after that” should be used to mitigate some of the issues found in CST (R. L. Flood, Romm, Norma R.A., 1996, p. 19).

In another perspective of critical theory, Luhmann, a prominent social theorist, lays a theoretical groundwork behind a description of modern society. He describes society as comprised of interconnected subsystems that are connected with a web of communications complete with feedback loops, adaptive behavior and unique perspectives (Luhmann, 1995, p. xii). His arguments with Habermas are well known. “Habermas accused Luhmann of a technocratic functionalism that undermined the very possibility of critique and an emancipatory politics. In response, Luhmann criticized Habermas’s consensus-oriented discourse ethics as a hopelessly inadequate response to the complex issues that arise in highly differentiated postindustrial societies” (Luhmann, 1995, p. xiv). This debate highlights some of the key issues in critical theory and sociology at the time.

Luhmann recognizes the type of paradox found in enterprise transformation problems in which there are systems that can relate elements to other elements in the system and those that cannot (overtones of Turing’s diagonal method of proof); where there is behavior where complexity enforces selectivity to function but also encourages emergent behaviors (Luhmann, 1995, p. xviii). Luhmann (1995) writes, “Systems theory, in other words, *simulates* complexity in order to *explain* complexity, and it does so by creating a flexible network of selectively interrelated concepts that can be recombined in many different ways and thus used to describe the most diverse social phenomena” (p. xix). Luhmann breaks from the systems-theoretical approach through the use of a “probabilistic framework that subordinates structure to function and allows the former to be seen as an emergent order that is dynamic and constantly changing” (Luhmann, 1995, p. xxviii). He finds that Habermas’ theory of communicative action is insufficient to understand communications, for consensus is local and temporal; dissent is necessary for

continued communications – nothing would be left to say; and the concept of action is an effect, not a precondition of the social (Luhmann, 1995, pp. xxix-xxx).

This section provided an overview of critical theory in the context of systems theory, highlighting some of the key debates. In terms of critical theory in the field of engineering management, it is clear that the dominant historical literature takes a very narrow perspective of critical theory that does not take into account the richness of the theory found in other disciplines.

In a larger engineering management discipline, given the plethora of tools, methods, and research in management perspectives (scientific, positivist, bureaucratic) as well as the narrow view of critical approaches (SSM, CST, open systems theory), what is needed to broaden and expand the field is a scholarly program to realize, through a micro-emancipatory praxis that is rooted in critical theory, a fully developed pedagogy of critical management thinking particularly when it comes to politics in enterprise transformation problems.

INDUCTIVE METHOD

This research uses an inductive method. Inductive research is based on the assumption that science develops incrementally by a process of discovering new relationships and errors in existing theories and correcting those theories accordingly (Locke, 2007, p. 872). Feibleman (1954) writes, “It discovers hypotheses, it offers evidential support for generalities, and it tells us something about the future” (p. 332). Formal research is conducted broadly along the lines of the scientific method, however, not all disciplines employ the same methodology in the analysis of the data (Leedy, 1997, p. 104). Leedy (1997) writes, “Methodology is merely an operational framework within which data are placed so that their meaning may be seen more clearly” (p. 104). In general, the existing methodologies tend to fall into two categories for collecting and analyzing data: quantitative and qualitative (Leedy, 1997, p. 104). Most often the qualitative approach is associated with inductive analysis; however, some research projects contain mixed approaches in the analysis of data. This study uses an inductive approach to develop a theoretical framework for the analysis of politics in enterprise transformation.

In general, in inductive research “The researcher begins with an area of study and allows theory to emerge from the data” (Strauss & Corbin, 1998, p. 12). Patterns and similarities are discovered in the data often without the restraint of structured methodologies (Thomas, 2006, p. 238). The general approach to inductive research is described by Thomas (2006):

1. Summarize the results of condensing extensive raw data
2. Clearly link research objectives and summary findings from the data analysis. Ensure the links are clearly articulated and defensible
3. From the text data, develop a model, theory or concept about the underlying structure of experiences or processes evident in the data (p. 238).

Table 23 below is Thomas’ (2006) comparison of several approaches within the inductive research domain.

Table 23 Comparison of Qualitative Analysis Approaches (adapted from Thomas, 2006)

	General Inductive Approach	Grounded Theory	Discourse Analysis	Phenomenology
Analytic strategies and questions	What are the core meanings evident in the text, relevant to evaluation or research objectives?	To generate or discover theory using open and axial coding and theoretical sampling	Concerned with talk and texts as social practices and their rhetorical or argumentative organization	Seeks to uncover the meaning that lives within experience and to convey felt understanding in words
Outcome of analysis	Themes or categories most relevant to research objectives identified	A theory that includes themes or categories	Multiple meanings of language and text identified and described	A description of lived experiences
Presentation of findings	Description of most important themes	Description of theory that includes core outcomes	Descriptive account of multiple meanings in text	A coherent story or narrative about the experience

Criticisms of the inductive method are found in history with Plato, Kant, and Popper based on their belief in creative intuition about forms, the noumenal world, or other realities that are not accessible through experience. Kant writes about the inability of the mind to know reality; all we can know about the world is the phenomenal world (Locke, 2007, p. 868). Kuhn and Popper continue this line of thought that induction is invalid: “A principle of induction is superfluous, and it must lead to logical inconsistencies” (Locke, 2007, p. 868; Popper, 2003, p. 5). For critics of induction such

as Popper, empirical evidence is observed, or, as in the case of this research theory and analysis, interpreted by the researcher and used to make a universal claim that would necessarily require an infinite regress of experiences and hence the universal statements would never be verifiable (Locke, 2007, p. 868). Popper also rejects the notion of causality and objective concept formulation and claims that science advanced through disproving theories and deduction (Locke, 2007, p. 868). Platt (1964) adds to the criticism of induction by criticizing the rapid advances in sciences like biology as overly experimental and lacking the theoretical foundations to move science forward by disproving established theories (Locke, 2007, p. 869).

Critics of Popper say his position lacks an adequate description of where the original theories come from – theories from which to deduce new knowledge or disprove (Locke, 2007, p. 868). In addition, the condition of advancing science from falsifying existing theories falls apart under its own weight since the criteria for falsifying theories comes from gathering evidence which could lead to an infinite regress itself (Locke, 2007, p. 869).

Popper's position on causality is difficult to defend in the overall scheme of advancing science, for from a theory one may rule out many causes but fail to advance knowledge of what causes the phenomena or how the phenomena occurs (Locke, 2007, p. 869). Josephson (1959) illustrates this: "When Thomas Edison found that hundreds of different materials failed to work as light bulb filaments, this was useful to know because those materials could be ignored. But he still had to find a filament (a cotton thread coated with carbon) that did work" (Josephson, 1959; as cited in Locke, 2007, pp. 869-870). Additionally, Popper's claim of "universal statements" does not reflect the nature of inductive research which is based on the assumption that science develops incrementally by a process of discovering new relationships and errors and correcting theories accordingly (Locke, 2007, p. 872).

Induction is logical in the sense that it is concerned with relations between classes and their members and discovering "the extent of the deductive structure" (Feibleman, 1954, p. 335). However, due to the nature of fundamental change, enterprise transformation problems are characterized by a continual shifting of relationships, boundaries, and associated members. Discovery of a "deductive structure" may be

elusive, or, if found, may not exist as a definitive structure for any significant period of time. Feibleman (1954) describes degrees of validity in induction where “The question of the validity of induction is statistical, and can be settled only on the basis of economy...Validity is limited to deductive entailment—necessity—and in connection with induction must refer to the deductive background that every induction presupposes” (p. 336). Despite this probabilistic view of induction and the limitations it has for enterprise transformation problems, Feibleman (1954) acknowledges the importance of the discovery of hypotheses, observation, or the development of theories and tests to validate or invalidate the hypothesis for moving science forward (p. 339). He cautions against fallacious forms of reasoning that might occur when making inductions from generalities to generalities yet notes that an “argument capable of committing great error is also likely to be one capable of arriving at great truth” (Feibleman, 1954, pp. 340-341).

The black swan example illustrates another criticism of the inductive method. The story describes a professor who helps students develop a concept of *swans* in which the color of a swan is white. The discovery of a black swan invalidates the concept and critics of the inductive process argue that this demonstrates that the induction method is futile for one cannot realistically make all the observations necessary to claim something is true (Locke, 2007, p. 886). Locke argues that this criticism does not take into account that concepts are open-ended and under constant revision. The concept was valid at the time and with the new discovery needs to be updated to be consistent with new information. The model, Lock claims, is the “model for the whole history of science” (Locke, 2007, p. 886).

Philosophically, induction assumes objective knowledge which is rooted in the belief that the human mind can know reality and knowledge advances through inquiry, observation, and test (Locke, 2007, pp. 868, 880). The possibility of discovering casual inferences is assumed (Locke, 2007, p. 882). Abstractions of reality may be necessary to determine the domain of analysis and examine a specific problem but science proceeds through theory building, hypothesis, testing, and adjusting theories as required. Valid concepts either derived through theory-building or from established research are necessary for advanced casual generalizations (Locke, 2007, p. 882). For example, the concept of gravity was unknown to Galileo and despite his many achievements, his

research led him to errors: "...causal generalizations are based on inductions starting at the perceptual level" (Locke, 2007, p. 882).

This study employs a critical approach to theory-building. Critical approaches seek to understand inherent values and ideology behind data which is harder to quantify than other inductive methods and therefore may not appeal as readily to some scientific communities. The approach has the strength of reflective inquiry (dominance, alienation, democracy, harm). Critics say that the methods focus on the negative features of society and its institutions and that critical theory takes too much of an intellectual stance making it difficult to apply in empirical research (Alvesson & Sköldbberg, 2003, p. 145). More holistic inductive research designs, like the one used in this study, have the strength of a broad perspective and the inclusion of observed or studied phenomena in a big picture, but it is this universal harmonizing or universal fragmentation that can make the methods susceptible to totalizing their perspective (Alvesson & Sköldbberg, 2003, p. 104). Care must also be taken in this approach to not commit errors such as the cross-level and ecological fallacies that will be discussed in Chapter II.

CHAPTER SUMMARY

This chapter describes the primary ontological, epistemological, and methodological inquiry paradigms used in the research. This research assumes the fallibility of knowledge that will be improved through the method of critical inquiry using the method of dialectical analysis with a second level of critical ideology. This approach is critical in enterprise transformation problems that are characterized by ambiguity and uncertainty; the temptation to revert to the dominant paradigm is strong when rational knowledge is derived from prediction and control, empirical evidence, value neutrality, and general laws, while politics is perceived as inconvenient. Critical research approaches are sensitive to constructed reality shaped over historical and political contexts. In addition, critical research approaches assume historical realism that is shaped over time by social, cultural, political, economic, gender, and ethical values (Guba & Lincoln, 2005). I define research as critical when it is:

- Concerned with conditions that facilitate the realization of human needs and potentials

- Supports a process of critical self-reflection and associated self-transformation
- Sensitive to a broader set of institutional issues related particularly to social justice, due process, and human freedom
- Incorporates principles of fallibility and self-correction (growth of knowledge through criticism)
- Suggestive of how the critique of social conditions or practices could be met
- Incorporates explicit principles of evidence given for the evaluation of claims made throughout the research process (H. K. Klein, 2004).

Enterprise transformation problems are inherently complex and are subject to the trap of multi-level and cross-level fallacies. As the domain of analysis is defined and a critical inquiry into the politics in the enterprise is explored, the perspectives will shift from particular or communitarian views to universal views that generalize or aggregate the analysis; care must be taken to not commit these potential fallacies. While many systems-based approaches have contributed to an understanding of complex behavior in enterprises, many adapt a narrow perspective of critical theory that does not take into account the richness found in a multi-discipline survey of critical research. The research perspective used attempts to broaden the use of critical theory in the form of critical ideology. Critical ideology has its roots in critical theory and places both ideas and concepts in their historic and political contexts (Alford & Friedland, 1992).

The analysis politics in enterprise transformation is subject to the same types of complex behavior found in geometric, scale, and computational frustration. That is, the enterprise is capable of producing emergent cooperation, frustration, and paradigmatic hegemony. What we can learn from Turing's Machine is that the concepts, models, and frameworks will produce both true and false results and it is the collective ability of the stakeholders involved to accept uncertainty and risk that will determine whether a given application of the framework is successful or not.

CHAPTER IV: RESEARCH DESIGN

Creativity is allowing yourself to make mistakes. Design is knowing which ones to keep.

-Scott Adams, *The Dilbert Principle* (1997)

CHAPTER OVERVIEW

This section describes the research design. The purpose of research is to “learn what has never been known before; to ask a significant question for which no conclusive answer has been found and, through the medium of relevant facts and their interpretation, to attempt to find the answer to that question” (Leedy, 1997, p. xiv). The purpose of the research design is to describe a framework, an associated process, and compositional approaches for conducting a similar study (Creswell, 1994, p. xv). That is, a researcher with a similar background to my own would be able to take this chapter and duplicate the research.

RESEARCH DESIGN

This research uses a qualitative paradigm to develop a theoretical framework for the analysis of politics in enterprise transformations. In the previous chapter, I described the research perspective as one using the dialectical analysis of concepts in their theoretical perspective with a second level of theory called critical ideology, which has its roots in critical theory. The literature review conducted in Chapter II was used inductively, consistent with qualitative design described in Creswell (1994, p. 21). The theoretical framework uses a typology of power established in Chapter II that distinguishes how power operates over systemic, situational, and structural contexts. Further development of the theoretical framework is accomplished in Appendix D: Coding the Clarifying Concepts. The result is a paradigmatic model and theory which composes the theoretical framework. Furthermore, in this chapter I describe the validation process, qualitative metrics, and how this research adheres to the Canons of Science. Figure 16 provides an overview of the research design.

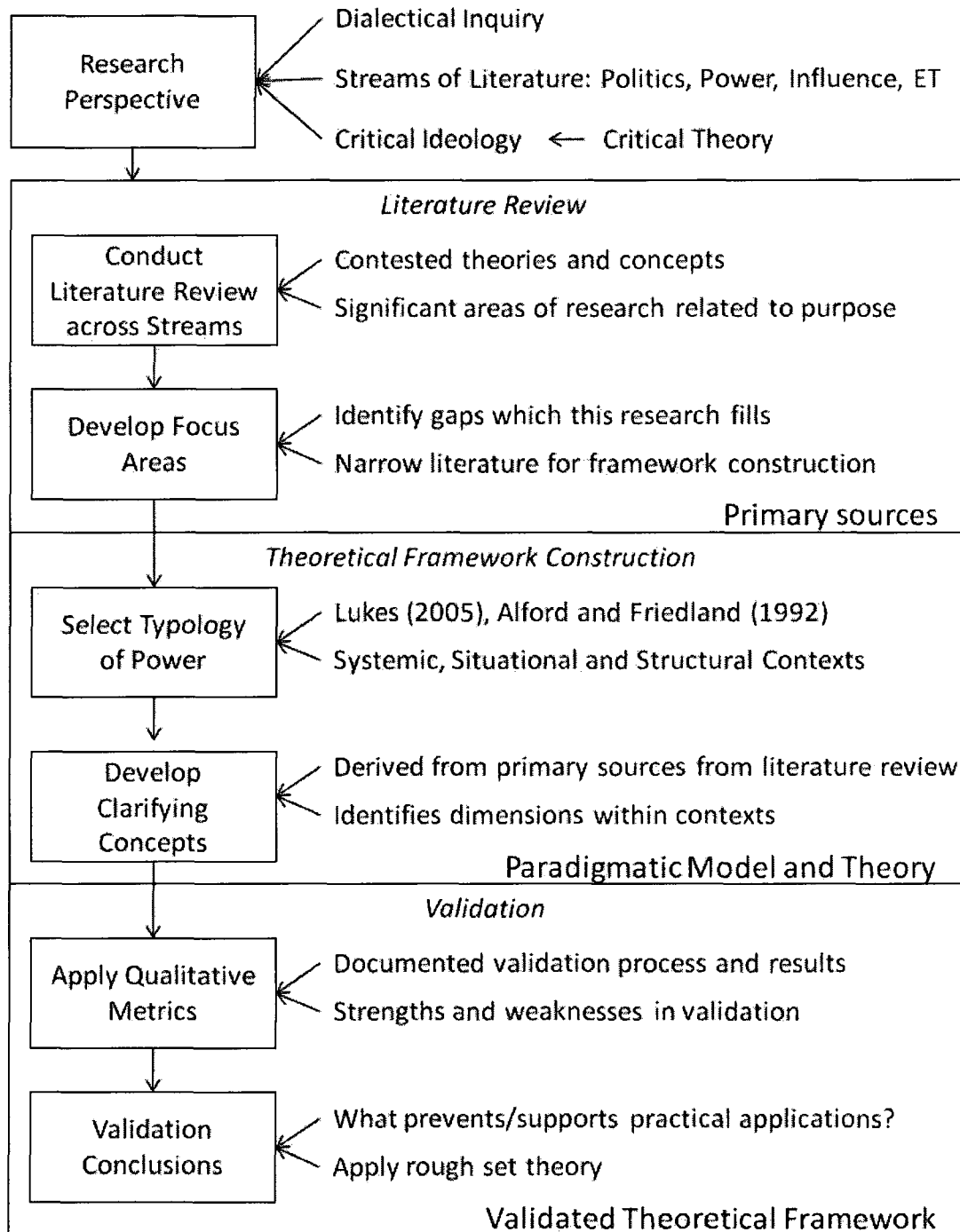


Figure 16 Research Design

The purpose of the literature review is to narrow the literature to the scholarly works that were relevant to both the development and validation of the theoretical framework. The review in Chapter II examined literature across the fields of political science, sociology, international relations, mathematics, complexity, and organizational theory for four main threads: 1) politics, 2) power, 3) influence, and 4) enterprise transformations. Systems theory forms the background to inform the research and frame the perspective for the framework, but is not specifically called out as a literature domain. The goal of this first step of the literature review is to synthesize the literature and find threads of continuity across the four main areas. Primary questions for examination during this part of the literature review are:

1. What is the nature of politics in enterprise transformation? (Distinguish scholarly research from opinion).
2. What are the themes, patterns, and threads that occur in the synthesis of the existing literature on politics, power, and the science of influence?
3. What are the dominant concepts related to politics across organizational theory, political science, sociology, and international relations?
4. What is the result of a critical critique of scholarly work across these domains?
5. What are the gaps in the fields and how does this research address some of these gaps?

The literature is further examined in five focus areas relevant to the construction and validation of the framework:

1. Frameworks using the dialectical analysis
2. Frameworks for the analysis of politics in enterprises
3. Analysis of concepts using rough set theory
4. Systemic, situational, and structural contexts
5. Concepts located in articulated theoretical perspectives that meet the critical-ideology criteria

Through the depth, synthesis, and critique of the literature a clear gap in the body of knowledge related to the analysis of politics in enterprise transformations is identified. This research fills that gap. Figure 17 is the literature review schema used in Chapter II.

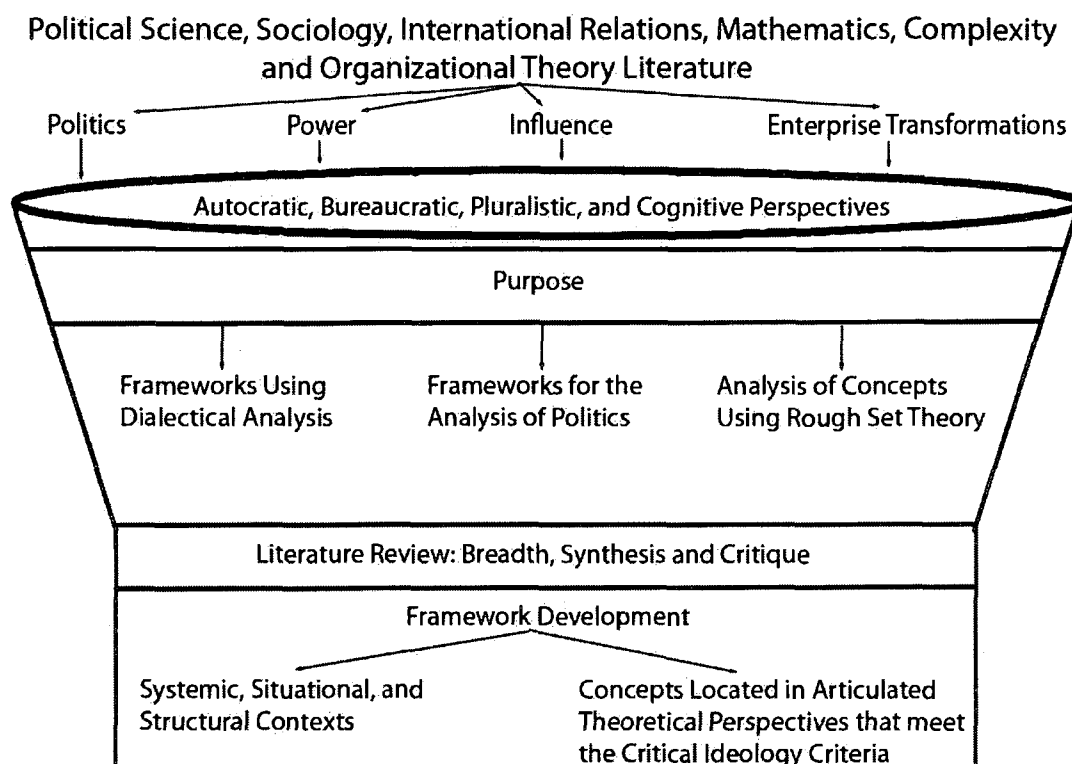


Figure 17 Literature Review Schema from Chapter II

From the review and critique, I describe significant gaps in the body of knowledge related to the analysis of politics in enterprise transformation and describe how this research addresses those gaps. Focus areas (1) and (2) are addressed in Chapter II and a critique of the frameworks showed clear weaknesses in existing frameworks when applied to the analysis of politics in enterprise transformations. Focus area (3) is treated in Appendix A: Introduction to Rough Set Theory and a relevant example explaining how rough set theory is used in this research is provided in this chapter. Focus areas (4) and (5) are treated in appendixes C: Theoretical Framework Construction and D: Coding the Clarifying Concepts, respectively.

DATA COLLECTION

The data is collected from a broad variety of sources over multiple disciplines and clearly documented in Chapter II. Because of the broad topic and holistic nature of the theoretical framework, literally thousands of articles were reviewed for their relevance to

the five focus areas. The data reduction process and each step are clearly documented in Chapter II in order to provide traceability and artifacts that a researcher with similar background can use to reproduce results. I have described qualitative validation metrics found in Leedy (1997) and Gall, Borg, and Gall (1996). The documented process and steps of data reduction to primary works, combined with the construction of the framework in Appendix C: Theoretical Framework Construction provides both construct validity and robustness. As this is a literature-based theoretical framework, not empirically derived, qualitative validation throughout the process of the reduction of data is critical.

Primary texts chosen are based upon (1) their applicability to the five focus areas and (2) scholarly level. The sources are documented both in Chapter II, Appendix C: Theoretical Framework Construction, and Chapter V. The primary sources associated with systemic, situational, and structural context are many due to the holistic nature of the framework. Within each of the twelve dimensions in the three contexts there are primary sources identified in Appendix C: Theoretical Framework Construction.

ANALYSIS

The literature is synthesized for both (1) frameworks using the dialectical analysis and (2) frameworks for the analysis of politics. An analysis of the gaps is provided in Chapter II. Furthermore, the review results in a list of concepts relevant to the analysis of politics in enterprise transformations. These concepts are documented in Chapter V, where they are analyzed to determine if they meet the critical-ideology criteria. I describe the analytic criteria in the section on concepts below.

In addition, the literature that was synthesized and critiqued provides both theory and data that I classified into systemic, situational, and structural contexts. Multiple frameworks use this same methodological approach, strengthening the validation of the framework with evidence of published, peer-reviewed studies and books and adding to the plausibility of the framework (external validation).

Primary sources associated with each of the twelve dimensions within the three contexts are identified from the literature. As the purpose of the framework is the dialectical analysis of concepts within each theoretical perspective, I focus on literature

that has either a strong empirical or theoretical base that can be used to distinguish between perspectives. For example, for the dimension *values* I examine hundreds of articles and books for empirically-based literature helps me to distinguish between value statements in the literature. One useful finding was from a study by Harvard researchers Bales and Couch (1969) who evaluated over 800 value statements to develop four “orthogonal vectors” that can be used to distinguish value statements. I incorporate their orthogonal vectors into my analysis as “clarifying concepts” that help distinguish value statements. I repeat this process for each of the twelve dimensions in Appendix C: Theoretical Framework Construction.

Clarifying concepts are different from the concepts in theoretical perspectives. First, clarifying concepts do not have to meet the critical-ideology criteria. Second, the focus of clarifying concepts is to distinguish between theoretical perspectives as opposed to concepts within theoretical perspectives that are more broadly considered across multiple dimensions. Third, when possible, clarifying concepts are derived from empirically-based literature in an effort to increase the “objectivity” of the distinguishing criteria. Concepts within theoretical perspectives are inherently value-laden. The relationship between clarifying concepts and concepts within their theoretical perspective is depicted in the two figures below.

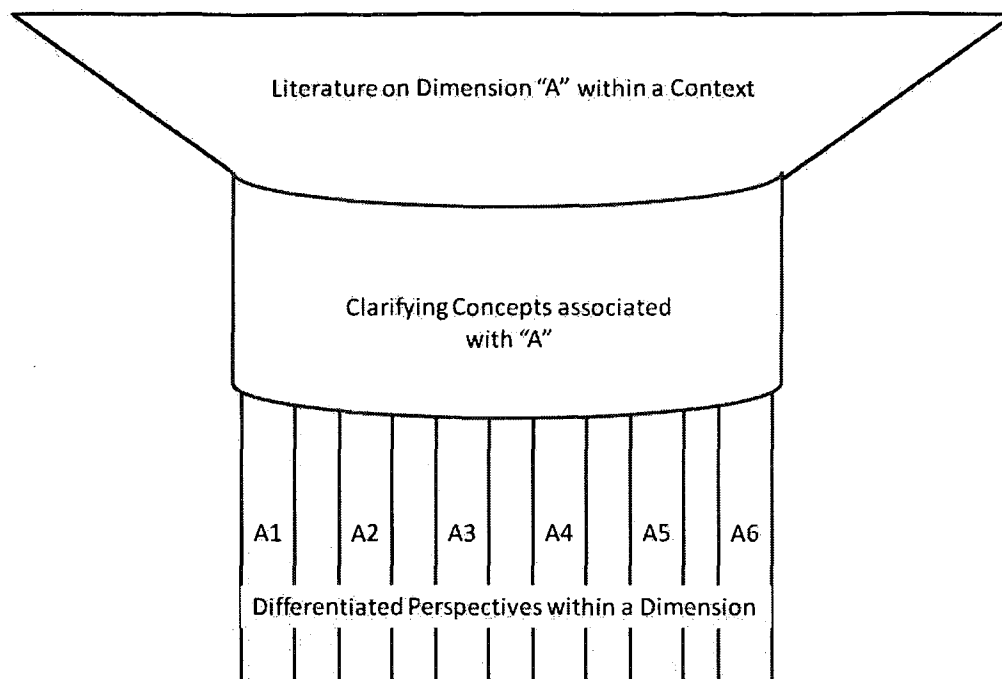
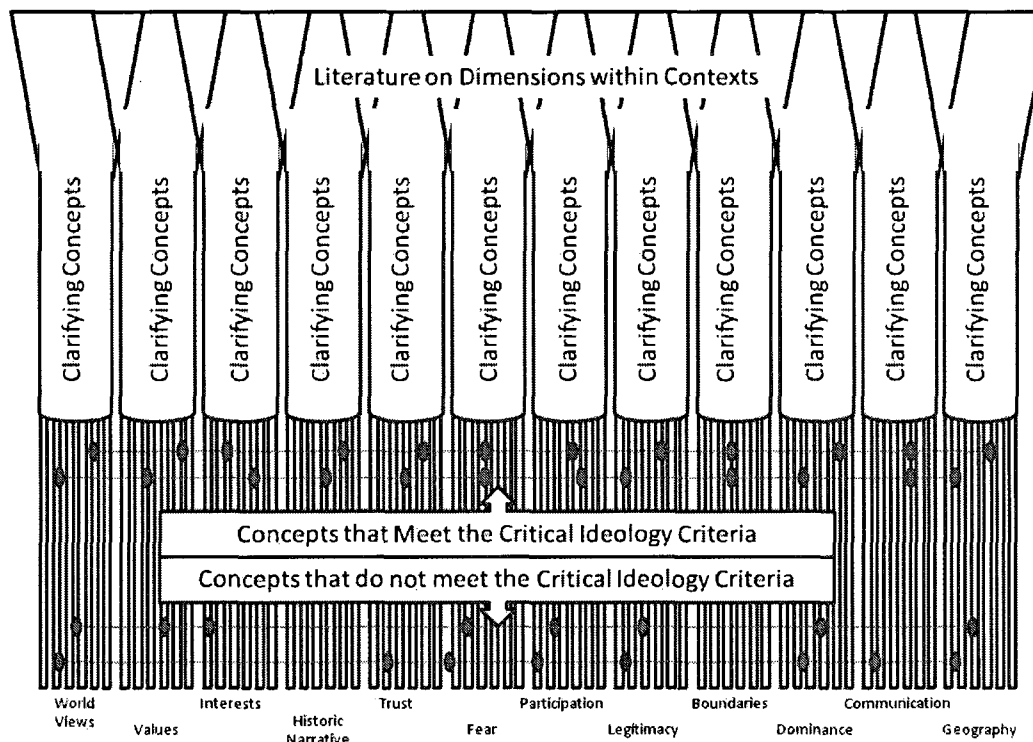


Figure 18 Clarifying Concepts

In Figure 19, the twelve dimensions are represented by flared cylinders at the top of the figure. Each dimension contains clarifying concepts to distinguish between theoretical perspectives. Each concept that meets the critical-ideology criteria is distinguished by these clarifying concepts. In Appendix D: Coding the Clarifying Concepts, I develop a coding scheme to ensure consistency and clear documentation for the analysis of concepts in their theoretical perspective. The coding scheme is presented in Appendix D: Coding the Clarifying Concepts. In addition, the coding scheme supports the application of rough set theory to the data in Chapter VII. For example, in the dimension *participation* there are two clarifying concepts: purpose of participation and definitions. The coding scheme is below. Note that this is not the type of coding scheme that is developed in grounded theory research. The coding is for convenience and creates clear, simple artifacts that strengthen usefulness of the framework.

Table 24 Example of Coding Scheme

Participation	Purpose of Participation	P ₁₀	Means-ends: participation is a top-down process with short term goals, structured around the problem owner
Participation	Purpose of Participation	P ₂₀	Moral right of inclusion: Objective of participation is “enskillling” participants
Participation	Definitions	P ₀₁	Consensus after competition in intellectual market
Participation	Definitions	P ₀₂	Dominant usages

**Figure 19 Relationship between Clarifying Concepts and Concepts that meet the Critical-Ideology Criteria**

Concepts

From the synthesized and critiqued data, I capture concepts related to politics in enterprises and document them in Chapter V. Identifying which concepts are chosen for analysis in this research required an additional level of theory that manifests in the twelve dimensions articulated. The theory presumed by the paradigmatic model is critical ideology. Critical ideology examines the historical force of ideas and is rooted in critical theory (Alford & Friedland, 1992, p. 407). Ideas viewed through the lens of history are

examined for their explanatory power over time (Alford & Friedland, 1992). For example, Reinhard Bendix (2001), in his book *Work and Authority in Industry: Managerial Ideologies in the Course of Industrialization*, examines the concepts of work and authority in the United States, Russia, and England as the entrepreneurial class responded to the stimuli created by the industrial age. Bendix (2001) writes:

Whenever enterprises are set up, a few command and many obey. The few, however, have seldom been satisfied to command without a higher justification even when they abjured all interest in ideas, and the many have seldom been docile enough not to provoke such justifications. This study deals with the ideas and interests of the few who have managed the work force of industrial and business enterprises since the Industrial Revolution.” (p. 1)

The idea of authority gives rise to the concepts of traditional authority, legal authority, and personal authority that differ according to the theoretical perspectives of these elites in the United States, Russia, and England (Bendix, 2001, pp. xxvi-xxvii).

The term *critical ideology* is used to distinguish it from critical theory in order to acknowledge that no concept is completely theory free (Alford & Friedland, 1992, p. 406). This type of critical management thinking is a novel contribution to the field. Within the engineering management and systems engineering discipline, theories and methods developed have taken a narrow view of critical theory which, while contributing to important and useful advances in the field (soft systems methodology, critical systems theory), has limited the development of a scholarly program to realize fully developed pedagogy of critical management thinking. The use of critical ideology will contribute to broadening this view. Critical ideology, as manifest in this research, is useful because it is an interpretive theory that opens up new possibilities for behaviors and actions by challenging implicit and explicit assumptions associated with ideas and concepts. In this view, autocratic, bureaucratic, pluralistic, and cognitive perspectives are ideologies: ideas and their associated concepts are used to shape systemic, situational, and structural arrangements. This shaping is amplified through the use of strategic alliances.

Once the concepts are derived, I analyze each of them for their adherence to the critical-ideology criteria which is based on Alford and Friedland (1992):

1. All of the systemic characterizations are addressed in the literature source or over several sources by the same author. This is a necessary condition since

ideologies are concerned with each of these characteristics and I treat each theoretical perspective as an ideology.

2. The purposes of this research, politics is a strategic alliance to affect systemic, situational, or structural arrangements. All of the situational characterizations must be addressed in order to understand the conflict relations between theoretical perspectives.
3. Structural arrangements are concerned with how power operates within the enterprise. Hence, structural characterizations may be enterprise or stimulus specific. At least two of the characterizations must be addressed to provide insights into how the idea or concept affected the way power operated in enterprises in the past.

Since there is no established standard within or across disciplines for the articulation of concepts, ideas, or theoretical perspectives, it is expected that, as in the example depicted in Table 25 below, not all fields will contain data. To strengthen the validation with a clear chain of evidence and traceability, I capture the data in an Excel spreadsheet that identify:

1. Bibliographical information including page referenced
2. Articulated theoretical perspective (if identified)
3. Concept proposed
4. Appropriate code for each of the twelve dimensions

For example, consider the concept of risk in Mitroff and Linstone (1993, pp. 100, 114) as seen from the theoretical perspective they label as the “technical perspective.” Table 25 below is the data record for the concept of risk in the technical perspective articulated by the authors. Note that I use the dimensions developed in this research and pull information from their work. The framework that the authors present is more limited than the framework I develop, but the information contained in their text is robust enough to be used in this example.

Table 25 Record for the Concept of Risk in the Technical Perspective (adapted from Mitroff & Linstone, 1993)

Data Description	Data
Bibliographic information	Mitroff and Linstone, 1993, pp. 100, 114
Articulated theoretical perspective	Technical perspective
Concept	Risk
<i>Systemic Characterizations</i>	
World View	Science-technology
Values	Logic, rationality, objectivity
Interests	Validation, replicability, quantifiability, optimization
Historic Narrative	Far, enduring, solve problems and produce products
<i>Situational Characterizations</i>	
Trust	Quantitative life valuations; failure to grasp "normal accidents"
Fear	Uncertainties reduced through fault trees, margin of safety design, fail-safe principles
Participation	Intolerance of 'nonscientific' views; one definition of risk for all
Legitimacy	Cost-benefit
<i>Structural characterizations</i>	
Boundaries	Action/design defined through probabilistic analysis, statistical inference or actuarial analysis; compartmentalizing problem by discipline
Dominance	Experts are elites
Communication	Communication through technical reports, briefings
Geography	

Table 26 depicts the record after I apply the clarifying concepts in Appendix C: Theoretical Framework Construction and the coding scheme developed in Appendix D: Coding the Clarifying Concepts.

Table 26 Coded Technical Perspective

Data Description	Data
Bibliographic information	Mitroff and Linstone, 1993, pp. 100, 114
Articulated theoretical perspective	Technical perspective
Concept	Risk
<i>Systemic Characterizations</i>	
World View	W ₂₂₂₂₁₁₂
Values	V ₁₂₁₁₂
Interests	I ₁₁
Historic Narrative	H ₁₂₂₂₂₁₂
<i>Situational Characterizations</i>	
Trust	T ₂₂₃
Fear	F ₂₁₁₂
Participation	P ₁₂
Legitimacy	L ₁₁
<i>Structural characterizations</i>	
Boundaries	B ₆₁₁
Dominance	D ₁₁₁₁₀₁₁
Communication	C ₁
Geography	

THEORETICAL FRAMEWORK CONSTRUCTION AND VALIDATION

Theory Development and Theorizing

As demonstrated in Chapters I and II, there is no firm theoretical foundation for the analysis of politics in enterprise transformations. The gaps in existing frameworks, and how this research addressed these gaps, were documented in Chapter II.

Construction of the theoretical framework requires both the development of theory and theorizing. Weick (1995) distinguishes between the two:

Theory work can take a variety of forms, because theory itself is a continuum, and because most verbally expressed theory leaves tacit some key portions of originating insight. These considerations suggest that it is tough to judge whether something is a theory or not when only the product itself is examined. What one needs to know, instead, is more about the context in which the product lives. This is the process of theorizing. (p. 387)

The rich contextual nature of this research is reflected by the breadth of the literature review and supporting Appendix C: Theoretical Framework Construction, Appendix D: Coding the Clarifying Concepts, and Appendix E: Autocratic, Bureaucratic,

Pluralistic, and Cognitive Perspectives that construct the theoretical framework. The forms of theory and associated characteristics are described in the table below and based on Merton (1968, p. 140) and Weick (1995, pp. 385-386).

Table 27 Forms of Theory and Characteristics (adapted from Adams, 2007)

Form of Theory	Characteristics
General Orientations	Broad frameworks that specify the types of variables people should take into account, without any specification of relationships among these variables
Analysis of Concepts	Concepts are specified, clarified, and defined by not interrelated
Post factum Interpretation	Ad hoc hypotheses are derived from a single observation, with no effort to explore alternative explanations or new observations
Empirical Generalization	An isolated proposition summarizes the relationship between two variables, but further interrelations are not attempted

In this research, the form of theory is a general orientation where I describe the dimensions and contexts that people should take into account when analyzing politics in enterprise transformations. However, there is a relationship between dimensions based on their groupings under three contexts: systemic, situational, and structural. Power operates in different ways in each of these contexts; the theoretical foundations for this claim is well established in Lukes (2005), Alford and Friedland (1992), and other authors, and has been extensively discussed in previous chapters.

Construction of the Theoretical Framework

The construction of the framework follows along the theory building format described by Bourgeois in Table 28 below.

Table 28 Bougeois' Theory-building Format (adapted from Adams, 2007)

Step	Description
Partitioning of the Field	Clarification of the purpose, objectives, questions and propositions to be answered
Method of Theory Construction	<i>Inductive inference</i> : starts with observations of a set of phenomena, after which one arrives at general conclusions <i>Deductive inference</i> : starts with general knowledge and predicts a specific observation
Review of Literature	Selective reading of the writings relevant to one's work, which should include the classics
Construction of Theory	Generation of a theory through comparative analysis of empirical laws and substantive theories
Extension of Theory	Generalization
Metaphysical Elaboration	A receptacle for the occasional intuitions that surface into consciousness as one pursues the theory-building task
Conclusion	Statements describing the theory

In my research, the partition of the field was described earlier this chapter and depicted in Chapter I and Figure 16. The method of theory construction is inductive reference. In Chapter III, I analyze the pros and cons of both deductive and inductive inference and explain why the latter is best suited for the purpose of this research. The literature scheme is described in Chapter II and depicted in Figure 2. Classic works from the broad streams of literature examined is documented in Chapter II. The theory is generated through comparative analysis of substantive theories associated with the analysis of politics relevant to enterprise transformations. Significant theory building is accomplished in Appendix C: Theoretical Framework Construction in which I derive clarifying concepts from the literature to help distinguish theoretical perspectives across the twelve dimensions in the framework. The generalization of the theory manifests in the presentation of the theoretical framework in Chapter V and conclusions follow in Chapter VII.

From the data collected and analyzed I construct the framework in Appendix C: Theoretical Framework Construction and D: Coding the Clarifying Concepts, and develop four theoretical perspectives in Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. An "instance" of the paradigmatic model is presented in Chapter V and is based upon four singular theoretical perspectives. The singular

theoretical perspectives are representative examples of autocratic, bureaucratic, pluralistic, and cognitive perspectives that contain concepts in common. The construction of this instance of the theoretical framework meets the first research objective. It answers the question, “what framework can be developed for the analysis of politics in enterprise transformation?” The theory behind the construction of the framework and the paradigmatic model comprise the theoretical framework.

The theoretical basis for the paradigmatic model developed is rooted in Quentin Skinner’s (1978a) approach for evaluating concepts over time, Steven Lukes (2005) typology of power, and the frameworks for dialectical analysis is developed by Alford and Friedland (1992), Allison and Zelikow (1999), Richard Scott (2003), and Eugene Jennings (1962) . Lukes (2005) typology of power can be found in the both Alford and Friedland (1992) and the work of Allison and Zelikow (1999), as well as other similar frameworks by other authors. Figure 20 depicts a summary of the components of the theoretical framework that have been described in Chapter II and through this chapter.

Validation of the Theoretical Framework

In a broad sense, validity “pertains to [the] relationship between an account and something outside of that account, whether this something is construed as objective reality, the construction of actors, or a variety of other possible interpretations” (Maxwell, 2002, p. 41). In Chapter I and Chapter III, I describe my research assumptions and perspectives, indicating that reality is beyond the observer’s full understanding and there is no correct “objective” account of reality. My approach to validity, therefore, is not dependent on a correspondence theory of truth in the “usual sense of mirroring or isomorphism between account and reality” (Maxwell, 2002, p. 42). Instead, the emphasis on validity is concerned not with the features of the account of the data, but with “those things the account claims to be about” (Maxwell, 2002, p. 42).

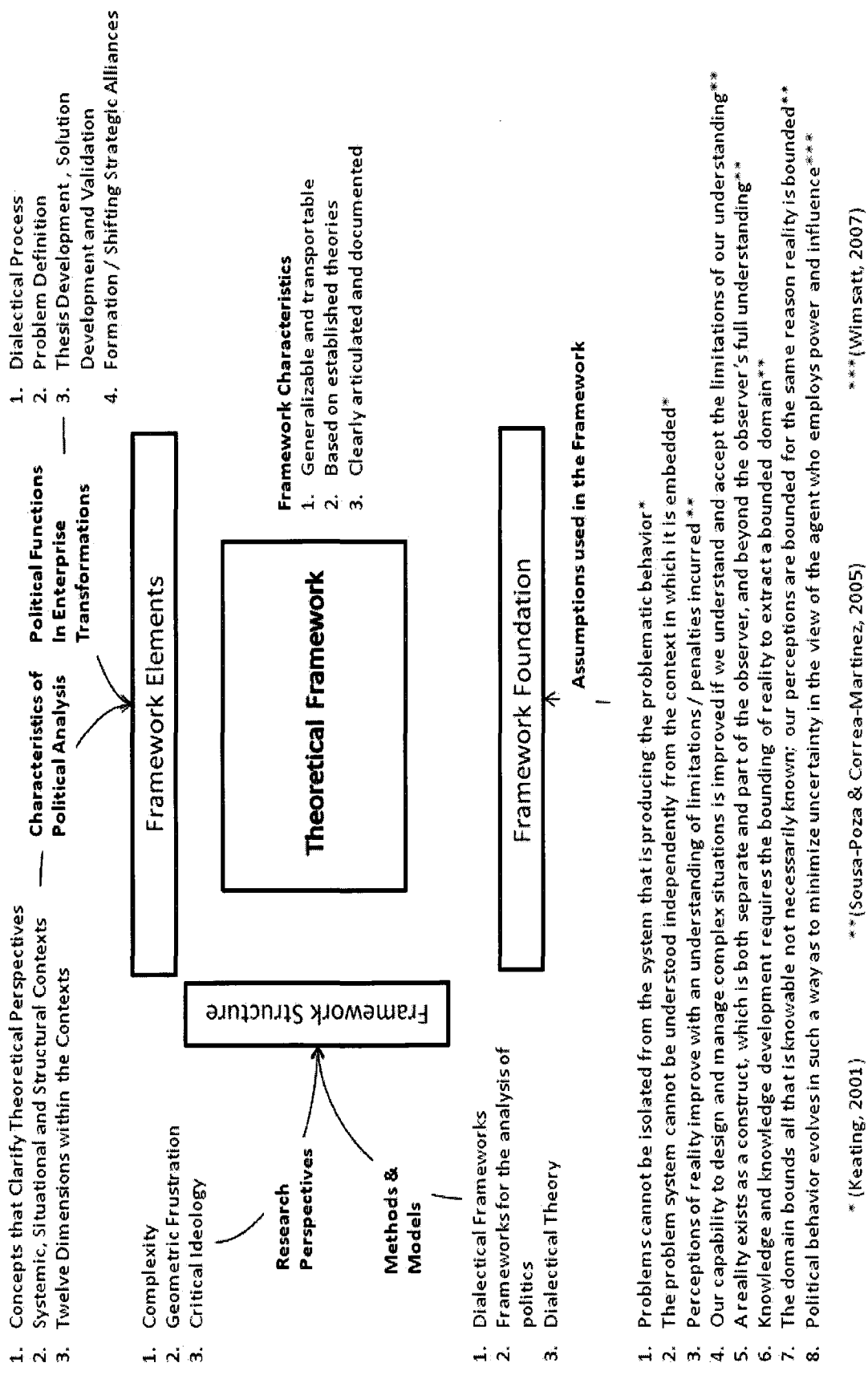


Figure 20 Components of the Theoretical Framework

While this concept of validity differs from positivism and instrumentalism, which are seen “as fallible means for generating evidence about the relationship between the account and its object,” extreme relativism is avoided through the use of rigorously developed categories of understanding that might include generalizability, theoretical validity, descriptive validity, interpretive validity, and evaluative validity (Maxwell, 2002, pp. 41-42). I discuss relevant aspects of this typology of understanding qualitative research and the validation design in this section.

The instance of the paradigmatic model is validated using qualitative metrics. Much of the validation occurred during the process of construction; however, in post-validation analysis, I find two areas in the framework to be enhanced as described in Chapter VII. I performed the post-validation analysis at the end of Chapter V and addressed it in Chapter VII because the recommendations for addressing validation conclusions are beyond the scope of the main research questions. There was sufficient work to be accomplished in the research questions as they stand.

Additional qualitative metrics strengthened the validation of the framework by using the method of interpretive validity as described by Altheide and Johnson (1994) and Huberman and Miles (2002). In interpretive validity, the research is examined for its usefulness—is the reader from the scholarly community enlightened by the research findings? Fundamentally, interpretive validity is concerned with what accounts mean and may include cognition, belief, affect, intention, and evaluation (Maxwell, 2002, p. 48). Argyris and Schön (1978) refer to both conscious and unconscious concepts in their idea of “theory-in-use.” Hence, interpretive validity is inherently a matter of inference from, in this case, concepts as they are politically and historically situated in the literature and inference from the research by the reader.

The contextual completeness of the research is also examined (Gall, et al., 1996, p. 573). How complete is the research in terms of how it views politics, power, and influence in enterprise transformations? Another consideration, in terms of validity, is researcher position. Gall, Borg, and Gall write, “A researcher’s interpretations are more credible and useful if he demonstrates sensitivity in how he relates to the situation being studied” (1996, p. 573). The importance of research positioning in the validation process is also emphasized by Leedy (1997). In terms of research positioning, my personal

experience in politics at both NATO Allied Command Transformation and the United States Joint Forces Command strengthens the validation of the framework

As I described in Chapter I, the paradigmatic model and critical ideology in each perspective results in a vocabulary of each perspective associated with concepts.

Additional qualitative metrics to validate the EPF framework include:

Table 29 Criteria for Validation

Seeing Plausibility	<i>A pattern becomes an explanation only when alternative patterns do no reasonable explanations central to the research problem. Plausibility is a matter of judgment about the quality of the data within the design limitations. Plausibility is demonstrated by the presentation of data and the rigor of the analysis (McMillan & Schumacher, 2001, p. 480).</i>
Clear Chain of Evidence	As the literature is reviewed through systemic, situational and structural contexts a clear chain of evidence is developed that further validates the characteristics of each perspective (Leedy, 1997, p. 169).

The construction of the theoretical framework involved generates a theory – in this case a framework – from theories, empirical studies, and analyses within a large breadth of literature. Generalizing theory from theoretical statements is widely discussed in the literature (Lee & Baskerville, 2003). Underlying the generalizing process are the epistemological, ontological, methodological, and axiological perspectives of the researcher. Together these perspectives combine to produce a research paradigm or belief system sufficient for high-quality research. Four criteria for high-quality research are found in Guba and Lincoln (2005) and comprise the *Canons of Science*.

Truth Value: How can one establish confidence in the truth of the findings of a particular inquiry for the subjects (respondents) with which and the context in which the inquiry was carried out?

Applicability: How can one determine the extent to which the findings of a particular inquiry have applicability in other contexts or with other subjects (respondents)?

Consistency: How can one determine whether the findings of an inquiry would be repeated if the inquiry were replicated with the same (or similar) subjects (respondents) in the same (or similar) context?

Neutrality: How can one establish the degree to which the findings of an inquiry are determined by the subjects (respondents) and conditions of the inquiry and not by the biases, motivations, interests, or perspectives of the inquirer? (Guba & Lincoln, 2005)

The applicability of the *Canons of Science* to qualitative research is addressed in Strauss and Corbin (1998). The authors suggest that “the usual canons of good science should be retained, but require redefinition in order to fit the realities of qualitative research, and the complexities of social phenomena we seek to understand” (Strauss & Corbin, 1998). Table 30 lists the *Canons of Science* and depicts generally accepted design quality concepts in two paradigms: there are a variety of paradigm positions from which authors articulate specific criteria to satisfy the Canons of Science (Adams, 2007, p. 123).

Table 30 Canons of Science and Design Quality Concepts (adapted from Adams, 2007)

<i>Canons of Science</i>	Quantitative Research Methods and Positivist Paradigm	Qualitative Research Methods and Naturalistic Paradigm
Truth Value	Internal validity	Trustworthiness or credibility
Applicability	External validity or generalizability	Transferability
Consistency	Reliability	Dependability or auditability
Neutrality	Objectivity or external reliability	Confirmability of data

The design quality concepts used for this research are described in the following paragraphs. First, internal validity or truth value is accomplished by ensuring primary sources have a sound foundation in either theory or empirical evidence. The qualitative metric “clear chain of evidence” ensure that personal biases are either documented or reduced throughout the data collection and theory generalizing process. The truth value is further strengthened by the analysis of existing frameworks that demonstrate similar frameworks for the analysis of politics while clearly indicating gaps that the theoretical framework developed in this research address. Plausibility, hence truth value, is further

strengthened by using the qualitative metric “researcher position” whereby my experience in enterprise transformations and politics were described.

External validity or applicability “refers to the extent to which the research results may apply to situations beyond the immediate research” (Adams, 2007, p. 125). In this study, I generalize a particular set of results from the literature review to a broader theoretical framework; the process of which is consistent with the process of generalizing results to some broader theory as discussed in Yin (2003, p. 37) and Lee and Baskerville (2003). External validity is demonstrated through expert peer review of the research questions, design, and answers. I discuss the criteria for experts and the peer review process below. In addition, use of the qualitative metrics *usefulness* and *subsuming particulars into the general* strengthen external validity. The latter saturated the literature ensuring generalizations are based on an analytically sound foundation.

Reliability in research is concerned with “the extent to which other researchers would arrive at similar results” using the research design and data as the first researcher (Gall, et al., 1996, p. 572). Reliability of the theoretical framework is supported by the use of the qualitative metrics *clear chain of evidence*, *fairness*, *noting patterns*, *contextual completeness*, and *expert peer review*. The clear chain of evidence ensure that the remaining qualitative metrics are auditable. The use of the qualitative metric *fairness* ensure that multiple research perspectives are considered, while the use of the metrics *contextual completeness* and *noting patterns* ensure the research reflects a breadth of theories, analysis, and empirical studies, thus establishing a stable foundation on which the theoretical framework was constructed. Expert peers not only analyze the data collection and research design, but perform a coding exercise, populating the theoretical framework based on an excerpt from Jennings (1962). I discuss the process of expert peer review and results in Appendix B: Peer Review Procedures.

Finally, objectivity in research is concerned with “the issue of whether independent researchers would discover the same phenomena or generate the same constructs in the same or similar settings” (LeCompte & Goetz, 1982, p. 32). The documented chain of evidence and development of appropriate artifacts (tables, appendixes, etc.) ensures researchers with similar backgrounds can reproduce similar conclusions from the literature examined.

The expert peer review was conducted with three students in the International Relations graduate program at Old Dominion University. Peer review demonstrates the reliability of the approach, strengthening the validation of the theoretical framework. The reviewers examined data collection methods, the construction of both the framework and theory, and two of the students performed a coding exercise on an entry from Jennings (1962) to compare with my own coding. The process and results are captured in Appendix B: Peer Review Procedures.

Expert peer review strengthens the external validity of the framework. There are two types of post-development validity checks: content validity and face validity. These two types are described in Adams (2007, p. 180) and depicted in Table 31 below.

Table 31 Validity Checks (adapted from Adams, 2007)

Validity Check	Definition
Content Validity	<p>“Content validation, then, is basically judgmental. The items of a test must be studied, each item being weighed for its presumed representativeness of the universe. This means that each item must be judged for its presumed relevance to the property being measured, which is no easy task. Usually other competent judges should judge the content of the items. The universe of the content must, if possible, be clearly defined; that is, the judges must be furnished with specific directions for making judgments, as well as with the specification of what they are judging” (Kerlinger & Lee, 1999, p. 668).</p>
Face Validity	<p>“Concerns the extent to which an instrument looks like it measures what it is intended to measure...Face validity concerns judgment about an instrument after it is construction...Face validity can be considered one aspect of content validity, which concerns the inspection of the final product to make sure nothing went wrong in transforming plans into a completed instrument” (Nunnally, 1967, p. 99).</p> <p>“Face validity is not validity in the technical sense. It refers to what the test appears to measure. Trained or untrained individuals would look at the test and decide whether or not the test measures what it was supposed to measure. There is no quantification of the judgment or any index of agreement that is computed between judges” (Kerlinger & Lee, 1999).</p>

Experts chosen reviewed both content and face validity. An expert is defined as “a person who has background in the subject area and is recognized by his or her peers or those conducting the study as qualified to answer the questions” (Meyer & Booker, 2001). Meyer and Booker (2001, p. 7) identify three factors to be addressed when using expert judgment.

1. Selecting experts according to particular criteria

2. Designing elicitation methods
3. Specifying the mode in which the expert is to respond.

The criteria for expert selection are as follows and is adapted from (Meyers, 2007).

- Participants hold a graduate degree associated with politics or are in a graduate degree program where politics is a focus (Ayyub, 2001).
- Participants possess expertise strongly relevant to the analysis of politics gained through professional accomplishment, experience, or academic training (Ayyub, 2001; Brandon, 1998).
- Participants are willing to act as impartial evaluators and have the ability to be impartial judges of academic work (i.e., have taught courses) (Ayyub, 2001).
- Participants have an ability to appropriately generalize and simplify complex problems and solutions (Ayyub, 2001).
- Participants possess strong interpersonal and communication skills (Ayyub, 2001).

The elicitation method is a formal presentation of the research to the experts and specific questions discussed are captured in Appendix B: Peer Review Procedures. The experts responded verbally and in writing for the coding evaluation. Results are described in Appendix B: Peer Review Procedures.

CONCLUSIONS FROM THE VALIDATION PROCESS

Chapter VII begins with conclusions from the validation of the theoretical framework. I identify one weakness in this chapter to explain how I use rough set theory to construct an evolving framework. Because language is imprecise and there is a lack of consistency in the way theoretical perspectives are articulated in the literature, there are variations among descriptions of concepts in their theoretical perspectives. Hence, for the concept of *political culture* in an autocratic perspective, there may be five records that meet the critical-ideology criteria. In Chapter VII, I demonstrate this imprecision with a list of concepts in autocratic perspectives derived from over 800 articles and books. An example of multiple “autocratic” perspectives on the concept of *governance* is depicted in Figure 21.

Concepts	Theoretical Perspectives			
	Autocratic	Bureaucratic	Pluralistic	Cognitive
Governance				
Authority				
Risk				
Technology				
Society				

← Paradigmatic Model

	Systemic Context			Situational Context			Structural Context					
	World View	Values	Interests	Historic Trajectory	Frustr	Fear	Participation	Legitimacy	Boundaries	Dominance	Commitment	Geography
1	People are dangerous if not controlled	Adherence to social conventions by out-authorities	Interests sanctioned by history; obedience	Authoritarian; conflict & disobedience of God's Law	People unable to make their own choices	Losing control	Authorities rule and make decisions	Absence of leadership by most powerful member	Through God's Law or social norms	Submission to established authorities; aggression unacknowledged	Fear and obedience to those who obey	
2	To lead is to compete through supervision	Control, Obedience	Efficiency or absolute rule; state projects and resources	Leaders designated or violent over the one	Trust in family or support for political agenda	Loss of political power	Suppressed competition participation	Designated through family or power holds	Declared by political interests	Unlimited authority top-down	Comprehensive suppressed; obedience expected	
3	Lead through the ability to control action	Power over others and collecting rents	Service in office while maintaining rents	Parties, elections, legislatures are how power sharing occurs	Trust few or no one	Losing control	Collusion few rents or responsibilities	Seizure of power and institutions and ability to use them to control	Institutions are instruments to use, to out or expose	Control access to power positions, spoils, privileges	Controlled and bargained	
4	Individual as the basic unit of the organization	Maintain advantage to perceive others at a distance	Maintain control through distance	Increased institutional 'action at a distance'	Interaction results in preference or pre-identity and response	Challenges by others	Layers filter input	Ability to maintain control	Distance used to maintain control advantage	A responsive to it, no matter what it is doing	A attentive and responsive to it, at a distance	Hard establishment of co-presence
5	People are motivated by monetary interests	Who is separate from social life	Control through promise of monetary goals	Organizational as economic unit	Verify work through close supervision	Inefficiency	Task-oriented participation	Through ability to pay workers	Tasks needed define boundaries	Controlled Uncontrolled then supervision and coordination	Task-oriented communication	

Literature Reference 1 - 5

Figure 21 Example of Multiple Autocratic Perspectives on the Concept of Governance

I provide an introduction to rough set theory in Appendix A: Introduction to Rough Set Theory. To apply it to the data set in the research, I first code the concepts in their theoretical perspective. For illustrative purposes, I choose the theoretical perspective “autocratic” and concept *governance*. I use a simplified code to illustrate differences in the theoretical perspectives in Figure 22. New data, (records 6, 7 and 8), is introduced to the data set. These records contain data that articulates the concept of *governance* within a theoretical perspective, but the data is not referred to as an “autocratic” perspective in the literature source.

		Structural Context				Situational Context			Systemic Context					
		Autocratic Governance	Geography	Communication	Dominance	Boundaries	Legitimacy	Participation	Fear	Trust	Historic Narrative	Interests	Values	World View
1		Yes		a	a	a	a	a	a	a	a	a	a	a
2		Yes		a	a	a	a	a	a	a	a	a	a	a
3		Yes		a	a	a	a	b	a	a	a	a	b	a
4		Yes	a	b	b	b	a	c	b	b	b	b	b	b
5		Yes		c	c	b	b	d	c	c	c	c	c	b
6		No		c	c	b	b	d	c	c	c	c	c	b
7		No		b	c	b	b	d	b	b	b	c	c	b
8		No	b	d	d	d	c	f	d	d	d	d	c	c

Figure 22 Autocratic Governance CONCEPTS and New Data to Analyze

There are a total of 5 CONCEPTS (capitalized to distinguish them from how I use “concepts” in the research) for “autocratic governance”: $\{(\emptyset), (1, 2), (3), (4), (5)\}$. The “yes” in the last column indicates that these records are referred to as autocratic governance in the literature. However, records 6, 7, and 8 have a “no” in the last column. This means that they are articulated concepts about governance within theoretical perspectives, but they are called something else (e.g, realist theoretical perspective). The question is, “what theoretical perspective is represented in the descriptions of governance as articulated in records 6, 7 and 8?”

Rough set theory is designed to deal with this type of imprecision and ambiguity. I identify five CONCEPTS in the data but when new data is added it is not clear what constitutes a CONCEPT in other than formal terms where “formal terms” basically means there is a “yes” in the last column. Data that creates ambiguity in the rules is identified and depicted in Figure 23.

I now apply rough set theory. For each CONCEPT X, the greatest definable set contained in X and the least definable set containing X are computed. The former is called the lower approximation of X and the latter is called the upper approximation of X. I define these terms in the example in Chapter II. For any CONCEPT, valid rules are those that use the upper approximation and these rules are considered certain. Rules that use the upper bound are possibly valid (Pawlak, et al., 1995).

The data is analyzed and the certain, valid rules are:

$\{a, a, a, a, a, a, a, a, a, a, a, _ \} \rightarrow \{AG, Yes\}$; corresponding to element 1, 2

$\{a, b, a, a, a, b, a, a, a, a, _ \} \rightarrow \{AG, Yes\}$; corresponding to element 3

$\{ _, b, b, _, _, _, c, a, b, _, b, a \} \rightarrow \{AG, Yes\}$; corresponding to element 4

$\{c, d, d, d, d, d, f, c, d, d, d, b \} \rightarrow \{AG, No\}$; corresponding to element 8

The possible rules are:

$\{ _, c, c, _, _, _, d, b, _, c, c \} \rightarrow \{AG, Yes\}$; corresponding to element 5, 6

$\{ _, _, _, _, _, _, _, _, _, _, b \} \rightarrow \{AG, Yes\}$; corresponding to element 7 (note the ambiguity and decision of “yes” in element 4 determine the “yes” for this possible rule)

	Systemic Context				Situational Context				Structural Context				
	World View	Values	Interests	Historic Narrative	Trust	Fear	Participation	Legitimacy	Boundaries	Dominance	Communication	Geography	Autocratic Governance
1	a	a	a	a	a	a	a	a	a	a	a		Yes
2	a	a	a	a	a	a	a	a	a	a	a		Yes
3	a	b	a	a	a	a	b	a	a	a	a		Yes
4	b	b	b	b	b	b	c	a	b	b	b	a	Yes
5	b	c	c	c	c	c	d	b	b	c	c		Yes
6	b	c	c	c	c	c	d	b	b	c	c		No
7	b	c	c	b	b	b	d	b	b	c	b		No
8	c	c	d	d	d	d	f	c	d	d	d	b	No

Figure 23 Ambiguous Data is Introduced into the Theoretical Framework

The question becomes, how “good” are these rules given the data set? The qualities of both lower and upper approximations are calculated to answer the question and the result is depicted in Figure 24 below.

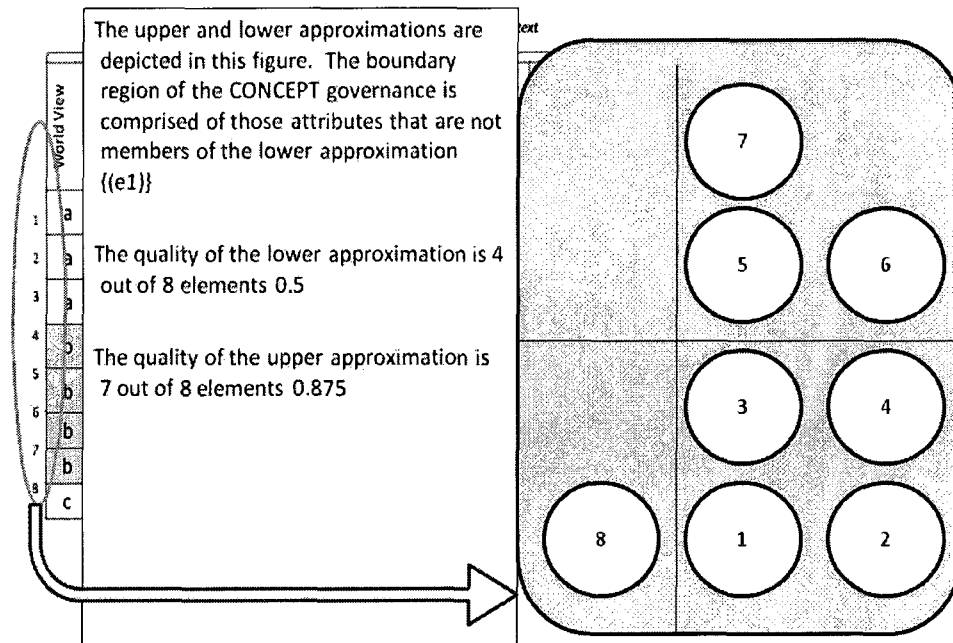


Figure 24 Quality of Approximations

This construction and application of rough set theory is novel in the engineering management discipline as well as in frameworks for the analysis of politics. The ability to include additional data in the framework enables a continuous “critique” of the initial framework and a sharpening of the concepts that are included in the paradigmatic model. The result is stronger plausibility and usability arguments, strengthening the validation of the theoretical framework.

SUMMARY OF RESEARCH PHASES

The following table outlines the research phases:

Table 32 Summary of Research Phases

Research Phase	Data Collection Methods	Data Collection Reference	Data Analysis Methods	Data Analysis Reference	Expected Outputs	Relationships to Research Question
Phase I. Study existing theory & literature	Literature review of politics, power, influence, and transformation. Further examine literature for six focus areas related to the research.	(Alvesson & Skoldberg, 2003; Gall, et al., 1996; Leedy, 1997)	Thematic capture of synthesis, patterns, and gaps from literature.	(Leedy, 1997; Thomas, 2006)	Gaps identified, database of work, major themes	What is the nature of politics, power and influence in enterprise transformation?
Phase IIa. Construct Framework: Concepts in their theoretical perspective and clarifying concepts	Use results of Phase I to identify concepts related to the analysis of politics in enterprises and develop the clarifying concepts for the twelve dimensions in the contexts	(Creswell, 1994; Gall, et al., 1996; Leedy, 1997)	Identify concepts and clarifying concepts from synthesized and critiqued literature. Document in Chapter V with a clear chain of evidence.	(Brookfield, 2005; Leedy, 1997; Thomas, 2006)	Validated (repeatable, useful) set of concepts for the analysis of politics and clarifying concepts that help guide the population of data into the framework	What concepts are used in the literature to analyze politics in enterprises? How applicable are they in enterprise transformations (over three contexts)?
Phase IIb: Construct the Framework: Paradigmatic model	Use the results of Phase I and IIa to construct the model.	(Creswell, 1994; Gall, et al., 1996; Huberman & Miles, 2002; Leedy, 1997; Thomas, 2006)	Identify "exemplar" theoretical perspectives found in the literature and associated concepts. Construct the framework.	(Brookfield, 2005; Gall, et al., 1996; Leedy, 1997; Strauss & Corbin, 1998)	Vocabulary of concepts across four theoretical perspectives forming the theoretical framework	What framework can be constructed for the analysis of politics in enterprise transformations?

Table 32 Continued

Research Phase	Data Collection Methods	Data Collection Reference	Data Analysis Methods	Data Analysis Reference	Expected Outputs	Relationships to Research Question
Phase III. Validate framework	Supplement data collected as required using the same methods as Phase I and II	(Alford & Friedland, 1992; Alvesson & Sköldbberg, 2003; Creswell, 1994)	Develop validation criteria for interpretive validity to strengthen the existing validation accomplished.	(Huberman & Miles, 2002; Leedy, 1997)	Validated framework	What are the criteria for validation? What are the limitations? How well is the framework validated across these criteria?
Phase IV: Develop the evolving framework	Supplement data collected as required using the same methods as Phase I and II	(Alvesson & Sköldbberg, 2003; Brookfield, 2005; Gall, et al., 1996; Leedy, 1997)	Use rough set theory and additional concept in theoretical perspectives data to construct valid and possible rules	(Ganter & Wille, 1999; Pawlak & Skowron, 1993; Wille, 2005)	Evolving framework developed	How is new data incorporated into the framework? How does the new data affect the research results?
Phase IV. Finalize and defend findings	Collect any additional required data to support future research recommendations and limitations of the critical theory approach	(Alford & Friedland, 1992; Leedy, 1997; Strauss & Corbin, 1998)	Ensure the data is useful to the scholarly community and demonstrates contextual completeness (interpretive validity)	(Alford & Friedland, 1992; Brookfield, 2005; Strauss & Corbin, 1998)	Finished dissertation with recommendations for further research	How does including politics in enterprise transformation analysis improve the subject transformation? What are the limitations and areas of future research?

CHAPTER SUMMARY

The research design is described in this chapter. I describe the purpose and goals of the research, what data is collected and for what purpose, and the design for validating the framework. The existing scholarly work is rooted in politics, power, and influence is extensive as well as impressive in explanatory power, policy, and research impact. A theoretical framework constructed from the literature and validated to a degree that is useful to the scholarly community is no small task. The additional qualitative criteria, above and beyond the validation metrics met during the construction of the theoretical framework, are used to ensure the universality, replication, and control other researchers need to build on or duplicate this research. I show how the qualitative metrics were related to the *Canons of Science*, demonstrating that this research design satisfactorily complies with the *Canons of Science*. The application of rough set theory strengthens plausibility and usability of the theoretical framework.

The research design is based on a number of research design sources that either contain qualitative design content or are specifically written for qualitative research. *Practical Research: Planning and Design* by Leedy (1997) and *Basics of Qualitative Research* by Strauss and Corbin (1998) strongly influence the overall research design. Qualitative metrics are derived from Leedy and *The Qualitative Researcher's Companion* edited by Huberman and Miles (2002), *Research in Education* by McMillan and Schumacher (2001), *The Sage Handbook of Qualitative Research* edited by Denzin and Lincoln (2005), and *Education Research*, by Gall, Borg, and Gall (1996). These references are used in numerous dissertations and articles for the development of qualitative metrics.

As this is a literature-based, theoretical research effort, sources that guide the development of theory and inductive research are necessary. Critical ideology has its roots in critical theory and *The Power of Critical Theory* by Brookfield (2005) is very useful in guiding critical reflection during the data analysis phases. In addition, *Reflexive Methodology: New Vistas for Qualitative Research* by Alvesson and Sköldbberg (2003) and David Thomas's article *A General Inductive Approach for Analyzing Qualitative Evaluation Data* (2006) guide the data analysis on concepts and the twelve dimensions to provide a solid foundation for construction of the framework. The concepts and

categories developed throughout the research and the relationships that are described amongst these concepts and categories are the basis for the theory that, along with the paradigmatic model, comprise the theoretical framework for the analysis of politics in enterprise transformations.

In total, the research design overcame the significant challenges of the problem studied by choosing assumptions that do not constrain the dynamical nature of politics and enterprise transformations. Furthermore, the employment of multiple qualitative validation criteria is useful in the validation of the theoretical framework. In the following chapter the framework rapidly expands as the data from the literature view is used to construct the framework. Chapter VI takes a step back from the development of the framework to examine implications of the research. This break from the theoretical construction and conclusions helps the reader to understand the potential societal and philosophical implications of the research. In addition, I provide an example that explains how the framework, with further research, might be employed by an engineering manager.

CHAPTER V: THEORETICAL FRAMEWORK AND VALIDATION

The clearest sign that a society has entered into the self-conscious possession of a new concept is, I take it, that a new vocabulary comes to be generated, in terms of which the concept is then articulated and discussed.

Quentin Skinner, *The Foundations of Modern Political Thought*, 1978

CHAPTER OVERVIEW

The theoretical framework presented in this chapter provides a vocabulary describing four different theoretical perspectives across twelve dimensions. The dimensions are rigorously derived from the literature review using critical ideology as a guide and represent dimensions of how power operates across the systemic, situational, and structural contexts found in enterprise transformations. A theoretical framework for the analysis of politics in a complex environment such as an enterprise under transformation must be able to distinguish what type of power is operational in order to match appropriate analysis tools to the domain of analysis. For example, if the potential source of frustration is different historic narratives, tools appropriate to analysis on the systemic domain are applicable. In Chapter II I show that the systemic, situational, and structural domains are distinguished by their level of abstraction from reality and time horizon. For the analysis of politics in enterprise transformations, a consideration of all three contexts is required in order to take into account the shifting states of cooperation, frustration, and paradigmatic hegemony. The research perspective in Chapter III is critical for explaining these shifting states that can simultaneously exist at different levels within the enterprise.

In enterprise transformations, stakeholders will have different educational backgrounds and associated vocabularies making it difficult to discuss enterprise politics. The vocabulary provided in this framework is a first step in abstracting characteristics of political phenomena for analysis across the typology of power chosen in this research. Researchers who study politics in enterprise transformations will find a rich vocabulary

that describes different dimensions of theoretical perspectives that can be compared and contrasted to explain political behavior and potential areas of cooperation and frustration. In Chapter VII, I expand this vocabulary further with the application of rough set theory, creating an evolving framework that adapts to the specific enterprise transformation and stakeholder group under examination. The theoretical framework is invariant over different situations; what varies is the data within the twelve dimensions of the framework. But the data is not random – it is guided by the clarifying concepts described in Appendix D: Coding the Clarifying Concepts. The worksheet developed in this appendix provides a guide for researchers to classify theoretical perspectives across the twelve dimensions in the framework.

This chapter builds on the previous four chapters to present and validate the theoretical framework. Chapters II and III formed the basis for the theory, based on the literature across multiple disciplines that supports the development of a paradigmatic model. The theoretical framework is comprised of both the theory and paradigmatic model constructed in this chapter. A significant amount of qualitative validation was accomplished in previous chapters to ensure other researchers with similar backgrounds can reproduce results. In this chapter, the theoretical framework construction is clearly documented for the same purpose. Additional qualitative validation criteria are addressed in this chapter: fairness, subsuming particulars into the general, the establishment of plausibility, and a clear chain of evidence (Guba & Lincoln, 2005; Huberman & Miles, 2002; Leedy, 1997; McMillan & Schumacher, 2001). A peer review assessed data collection, the construction of the framework, theory and traceability which strengthened the theoretical framework. In Chapter IV, I demonstrate how these qualitative metrics support the criteria for high-quality research that comprises the *Canons of Science* and strengthen the validation further by demonstrating adherence to critical ideology.

My critique in the literature review concludes that an analysis of politics in enterprise transformations must consider systemic, situational, and structural contexts – a conclusion supported by the work of Alford and Friedland (1992) and Lukes (2005). In Appendix C: Theoretical Framework Construction I develop the contexts further with the articulation of the twelve dimensions within these contexts. Using the sources derived from the literature review, I identify clarifying concepts that guide what data is placed in

each of the dimensions. Clarifying concepts represent the key characteristics used for analysis within the literature. For example, world views are distinguished by whether the actor or group assumes human nature is constant or whether it is changing. Hence, clarifying concepts provide distinguishing criteria for each dimension within the three contexts. The identification of clarifying concepts is documented with a clear chain of evidence to support the validation of the theoretical framework.

In Appendix D: Coding the Clarifying Concepts, each clarifying concept and associated value is assigned a code to guide the coding of literature on autocratic, bureaucratic, pluralistic, and cognitive perspectives developed in Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. The coding allows the researcher to develop consistent coding results that are repeatable by researchers with similar backgrounds. After the dimensions of the theoretical framework are clearly articulated and documented, I analyze the primary sources of literature on the four theoretical perspectives; the primary sources were identified through the literature review in Chapter II. The dimensions of the three contexts and associated clarifying concepts act as a guide in reviewing the primary sources on theoretical perspectives. The development of the four theoretical perspectives is documented in Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives.

I conclude that a theoretical framework for the analysis of politics in enterprise transformation problems should include a dialectical analysis involving the different perspectives present in the specific problem. This conclusion is supported by Allison and Zelikow (1999), Alford and Friedland (1992), Scott (2003), and Skinner (1978a, 1978b), increasing the plausibility of the theoretical framework. The gaps in these authors' analysis with respect to applicability to enterprise transformations in general are described in Chapter II.

One weakness in the works of these authors cited, which is not mentioned in Chapter II but which resulted from the validation process, is that their frameworks are frozen at the point of publication. Concepts evolve over time as do cognitive frameworks and language. Each of these authors, and in particular Skinner (1978a, 1978b) and Alford and Friedland (1992), acknowledge this fact. They did not have the tools to address future evolutions of concepts, language, and cognitive frameworks. I address this

weakness in Chapter VII with the introduction of rough set theory as the basis for an evolving framework.

CONCEPTS THAT MEET THE CRITICAL-IDEOLOGY CRITERIA

This section examines key concepts that meet the critical-ideology criteria and are derived from the literature streams examined in Chapter II. From a synthesis of the literature across organization and complexity theory, political science, sociology, and international relations, I use concepts located across the four theoretical perspectives used in this research: autocratic, bureaucratic, pluralistic, and cognitive. Each of these theoretical perspectives has its own interpretation of the fundamental levels of society: cultural, economic, and political (Alford & Friedland, 1992, p. 25). Figure 25 illustrates how the concepts that meet the critical-ideology criteria are related to the literature review and purpose of the research.

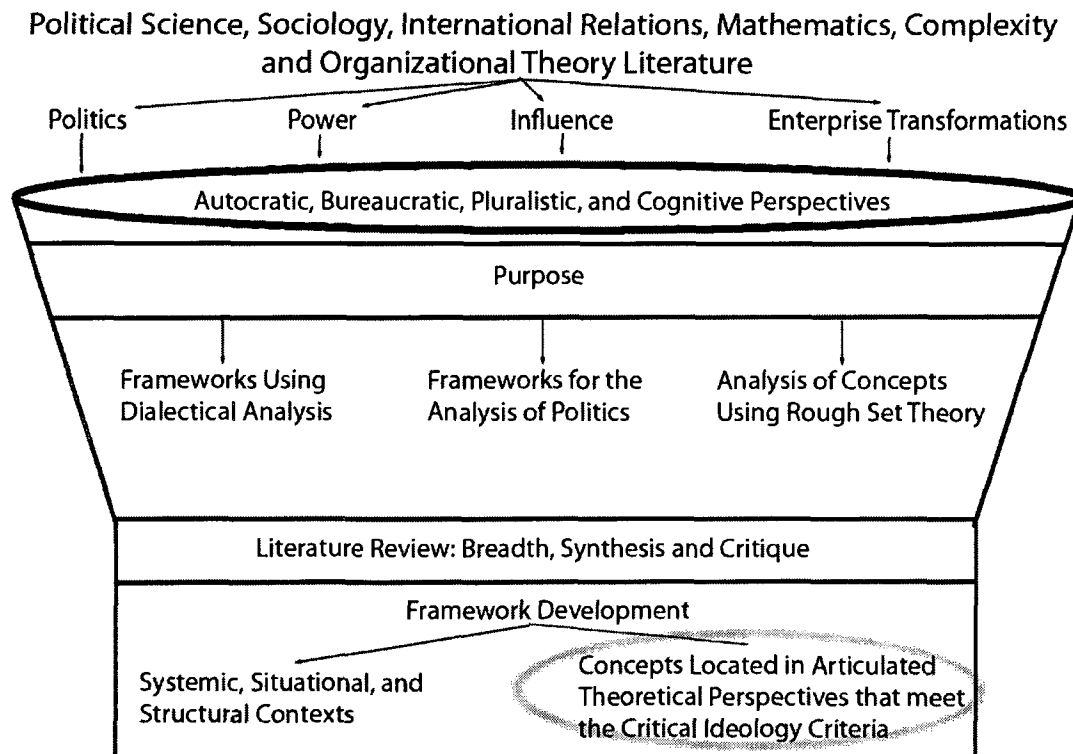


Figure 25 Concepts that Meet the Critical-Ideology Criteria

The first step is to review all the concepts covered within the literature review and evaluate whether they meet the critical-ideology criteria; they are listed below.

Table 33 All Concepts Derived from the Literature Review

Work	Authority	Personal authority	Legal authority	Traditional authority
Perceptions of politics	Employee commitment	Motivation	Cynicism	Job satisfaction
Work outcomes	Politics of perception	Political culture	Political socialization	Culture
Political development	Reality	Human nature	Cognitive dissonance	Politics of identity
Loyalty	Political behavior	Discretionary control	Time horizon	The future
Absorption of stimulus	Hierarchical orientation	Geopolitics	Politics of representation	Politics of memory
Political economy	Politics of greed	Sovereignty	Agency	Casualty
Uncertainty	Ambiguity	Personal abilities	Domination	Submission
Power through persuasion	Power through acting	Power that elevates humility	Military might	Officialdom
Physical power	Resource power	Positional power	Expert power	Personal power
Force	Exchange	Rules	Procedures	Persuasion
Ecology	Magnetism	Reciprocity	Scarcity	Liking
Authority	Social proof	Political communication	Bounded rationality	Cognitive rigidity
Variations in cognition	Propaganda	Risk	Equity	Efficiency
Security	Liberty	Goal	Mode of inquiry	Ethical basis
Planning horizon	Basic unit of analysis	Organizing concepts	Dominant interference pattern	General propositions
The power impulse	The order impulse	The putting-in tendency	The sharing impulse	The power ethic
Power exercises	Self-help	Self-protection	Self-consultation	Certainty and rigidity
Disciplined obedience	Objective arbitrariness	Silent autocracy	Balancing skill	Pride and the finality complex
The paternalist	The power vacuum	The systemic orientation	The tidy show complex	Regularity
Accuracy	The ritual of rules	Impersonality and vindictiveness	The magic of words	The bu-reactor
The union of the separated	Equality	Freedom	Rationality	The use of group
Power, order and love	The flexible executive	Diversity	False consciousness	Governance
Work	Boundaries	Rights	Society	Knowledge
Enterprise	Influence	Power	Dominant inference pattern	Technology
Participation	Fear	Trust	World Views	Interests
Historic Narrative	Legitimacy	Communication	Geography	Morality

Several of these concepts are found within clarifying concepts in Appendix C: Theoretical Framework Construction. For example, *domination* and *submission* are addressed in the clarifying concepts found under the dimension *dominance*. Similarly, *hierarchical orientation*, *boundaries*, *rights*, *morality*, *rules*, *ambiguity*, *freedom*, *human*

nature, reality, time horizon, the future, and uncertainty are found within clarifying concepts. Some concepts are named dimensions. The power of the framework is that it is holistic and these concepts, which are often categories of analysis within themselves, are incorporated. Other concepts are a description of means that may vary depending upon the specific enterprise and actors under consideration. An example would be the concepts associated with the primary means of influence: *force, exchange, rules, procedures, and persuasion*. *Power* is not included as a concept for the types of power are addressed throughout the framework: power will operate differently in the three contexts. Society is addressed in the totality of the systemic context. *Knowledge and dominance* inference patterns, in terms of patterns of inquiry, are also considered in the systemic context by virtue of its construction. *Enterprise, influence, and power* are threads from which I extract relevant concepts and analysis to construct the framework.

In order for a concept to meet the critical-ideology criteria, it must be articulated in a theoretical perspective as described in Chapter IV:

1. All of the systemic characterizations are addressed in the literature source or over several sources by the same author.
2. All of the situational characterizations must be addressed in order to understand the conflict relations between theoretical perspectives.
3. At least two of the structural characterizations must be addressed to provide insight into how the concept affect the way power operated in the history of the enterprise.

Very few concepts are well articulated in more than one theoretical perspective. After evaluating the concepts against the critical-ideology criteria, the final list of concepts is as follows:

Table 34 Concepts that Meet the Critical-Ideology Criteria

Leadership / Authority / Governance	Political Culture / Culture	Work	Technology	Risk
---	--------------------------------	------	------------	------

The concepts of *leadership, authority, and governance* are blurred within the literature so they are grouped together. There are two broad levels of analysis for all five concepts and most concepts in general, as discussed in Chapter II. One level of analysis

focuses on elites and the other is concerned with mass behavior. Perhaps because mass data is lacking, the majority of research I examined was focused on the politics of the elites. This is surprising since analysis that uses theoretical perspectives is more apt to be of more general use than using theoretical perspectives to predict elite behavior in general. As a point of emphasis, Hurwitz and Peffley (1990) argue, in the context of foreign policy attitudes, that theoretical perspectives, or orientations, “are not always consistent on specific issues, but more general foreign policy orientations in the mass public are quite specific” (Cottam & Shih, 1992, p. 2). The authors argue that people rely on broad abstract beliefs, or postures, regarding general directions of government action on international affairs (Hurwitz & Peffley, 1990, p. 4). However, using theoretical perspectives is very powerful for the examination of specific cases studies where the actors and their fears, values, and interests are known.

The theoretical framework allows different conceptions of power in systemic, situational, and structural contexts to be introduced into the dialectical analysis of these five concepts. The framework provides the vocabulary to discuss these differences in a holistic way. To use Lukes’ (2005) examples:

The CIA¹⁸ [doesn’t] want to know the sorts of things about a society that a fervent democrat, worried about the society’s practices, does. One wants to intervene; the other wants to evaluate. It would not be surprising if the CIA analyst and the democratic ideologue will employ slightly different concepts [of power] to achieve their differing ends...More subtly, the utilitarian celebrating the amount of power to satisfy wants is not disagreeing with the romantic for bemoaning the lack of power for self-development...They are employing difference concepts [of power]” (p. 205).

The use of the different concepts of power involves both the description of “self” and the description of “the other” using the theoretical framework. In the next section I discuss a way to bring these highly subjective issues underlying politics together in enterprise transformations by “putting on the table” other conceptions of power using the vocabulary created by the paradigmatic model associated with the theoretical framework.

¹⁸ The CIA is the Central Intelligence Agency.

THE THEORETICAL FRAMEWORK

The paradigmatic model provides a distinctive vocabulary of autocratic, pluralistic, bureaucratic, and cognitive perspectives. The paradigmatic model below and the theory that has been developed in previous chapters and appendixes comprise the theoretical framework. Concepts are described within their theoretical perspectives. The vocabulary is derived from the application of critical ideology to concepts within the literature on autocratic, bureaucratic, pluralistic, and cognitive theoretical perspectives. Each perspective brings its own epistemological, ontological, and methodological approach: however, approaches may overlap to varying degrees. Each concept located in its perspective is theory-laden; an examination of the vocabulary by column provides the user with the depth of perspective from which to explore and explain political behavior. An examination of the perspectives across columns highlights the friction and commonality between perspectives lending insights into what types of dynamic frustration might emerge in political behavior. But concepts must be understood in the context of the theory in which it lays – the systemic, situational, and structural contexts examined in Chapter II. As I described in Chapter I, theories have a power over the consciousness of social groups, behavior, and the categories of language itself (Alford & Friedland, 1992, p. 388). As a whole the theoretical framework allows the analyst to understand his or her own position and then to examine the terrain of other arguments and positions that may emerge.

I label this “an instance of” a paradigmatic model because each concept has a one-to-one mapping with a theoretical perspective. In reality, the mapping is one-to-many. Concepts change their meaning over time and any articulated paradigmatic model will inevitably change. An examination of concepts throughout the history of China is one example. Leadership in China has been consistently associated with the theoretical perspective “autocratic” yet the concept of *authority* has significantly changed over time. That is, for the concept of *authority* within the theoretical perspective “autocratic” there are several different descriptions that meet the critical-ideology criteria. By “description” I mean the twelve dimensions within systemic, situational, and structural contexts. I enhance the framework in the next chapter by proposing a novel solution that creates an evolving theoretical framework.

Each context has an associated domain of analysis and time horizon. A researcher might be interested in politics that might emerge in systemic phenomena and develop tools to analyze politics in the associated domain of analysis. Researchers interested in perceptions of politics might look for correlations within systemic contexts. But for the analysis of politics in enterprise transformations in general, all contexts require consideration to capture the shifting states of cooperation, frustration, and paradigmatic hegemony.

The main purpose of this research is to develop a theoretical framework for the analysis of politics in enterprise transformations. This chapter, supported by Chapter I-IV and associated appendixes, accomplishes that goal. The theoretical framework is invariant over the concept and the theoretical perspective chosen (the data within dimensions may change), as long as the concepts meet the critical-ideology criteria using the distinguishing criteria described in each of the twelve dimensions over systemic, situational, and structural contexts. I chose the concept of *leadership / authority / governance* as this concept is the most developed across theoretical perspectives. The theoretical framework is presented in below in Table 35.

The theoretical framework provides a vocabulary to help the engineering manager or researcher identify his or her own theoretical perspective and the potential perspectives of other stakeholders concerned with the concept in question. Inferences drawn from the theoretical framework are subject to the specifics of the stimuli causing the transformation, the enterprise that is transforming, the structural elements of the enterprise and its external environment, and the stakeholders concerned with the enterprise. The specifics of the theoretical framework and primary sources of literature can be found in Appendix C: Theoretical Framework Construction. In the next few paragraphs, I discuss the results of the framework from the perspective of research concerned with the politics that may emerge as theoretical perspectives interact.

Table 35 Paradigmatic Model of a Single Concept: Leadership / Authority / Governance

Concept: Leadership / Authority / Governance	Clarifying Concept	Autocratic (Fu, 1993)	Bureaucratic (Jennings, 1962)	Pluralistic (Alford & Friedland, 1992)	Cognitive (Lakoff, 2008)
Systemic Contexts					
World View	Theory- Method Relations	Praxis	Problem (pragmatic)	Puzzle (ideological)	Praxis
	Theory-Reality Relations	Ideology of a class	Analytic framework of a problem	Theory of a phenomena	Ideology of a class
	Unresolved Issue	Contradiction	Dilemma	Paradox	Contradiction
	Ontology	Historical realism: virtual reality shaped by social, cultural, economic, and political contexts	Naïve realism: reality real but apprehensible	Historical realism	Relativism; reality is specific and co-constructed
	Epistemology	Value-mediated findings	Findings probably true	Created findings	Created findings
	Nature of Knowledge	Structural/historical insights	Non-falsified hypotheses that are probably facts or laws	Structural / historical insights	Reconstructions coalescing around consensus
Image of General Change	Transformations of wholes	Manipulation of structures	Evolution of systems	Transformations of wholes	

Table 35 Continued

Concept: <i>Leadership / Authority / Governance</i>	Clarifying Concept	Autocratic (Fu, 1993)	Bureaucratic (Jennings, 1962)	Pluralistic (Alford & Friedland, 1992)	Cognitive (Lakoff, 2008)
Systemic Contexts	Acceptance of Authority	High acceptance of authority in value statements	High acceptance of authority in value statements	Low acceptance of authority in value statements	Low acceptance of authority in value statements
	Need-determined expression over value-determined expression	Low agreement with need-determined value statements such as "the only values are those of the moment" as opposed to value-determined statements such as "resist temptation"	High agreement with need-determined value statements	Moderate agreement with need-determined value statements	Moderate agreement with need-determined value statements
Values	Egalitarianism	Low agreement with value statements favoring egalitarianism	Low agreement with value statements favoring egalitarianism	High agreement with value statements favoring egalitarianism	High agreement with value statements favoring egalitarianism
	Individualism	Low agreement with value statements favoring individualism	Low agreement with value statements favoring individualism	High agreement with value statements favoring individualism	High agreement with value statements favoring individualism
Interests	Normal Functioning society	Rationalization and order	Rationalization and order	Integration and consensus	Integration and consensus
	When Interests are Shared	Conformity	Conformity	Cooperation	Cooperation
	When Interests are not Shared	Struggle	Competition	Conflict	Competition

Table 35 Continued

Concept: Leadership / Authority / Governance	Clarifying Concept	Autocratic (Fu, 1993)	Bureaucratic (Jennings, 1962)	Pluralistic (Alford & Friedland, 1992)	Cognitive (Lakoff, 2008)
Systemic Contexts					
Historic Narrative	Source of Change	Class struggle	Disorganization	Conflicts	Tensions
	Process	Bureaucratization (rationalization)	Bureaucratization	Socialization	Socialization
	The Whole	A structure with dominant elements	A structure with dominant elements	An aggregate of interdependent but autonomous parts	A totality determining internal relations
	External System	External constraints	External constraints	Totality of relations	Totality of relations
	Causation	Hegemony of imperatives	Dominance of forces in structures	Interdependent influence of multiple factors	Interdependent influence of multiple factors
	Empirical Reference	Historical manifestation	Empirical indicator	Empirical indicator	Historical manifestation
	Human Nature	Constant	Constant	Changing	Changing

Table 35 Continued

Concept: Leadership / Authority / Governance	Clarifying Concept	Autocratic (Fu, 1993)	Bureaucratic (Jennings, 1962)	Pluralistic (Alford & Friedland, 1992)	Cognitive (Lakoff, 2008)
Situational Contexts					
Trust	Positive Expectation Regarding the Conduct of Others	High degree of instrumented "checks" on others	High degree of instrumented "checks" on behaviors	Low degree of instrumented "checks" on behaviors	Low degree of instrumented "checks" on behaviors
	Extent to which Unconditional Trust is Fostered	Low degree of the following: broad role definitions; free exchange of knowledge for information; and voluntary subjugation of personal needs for common good	Low degree of the following: broad role definitions; free exchange of knowledge for information; and voluntary subjugation of personal needs for common good	High degree of the following: broad role definitions; free exchange of knowledge for information; and voluntary subjugation of personal needs for common good	High degree of the following: broad role definitions; free exchange of knowledge for information; and voluntary subjugation of personal needs for common good
Participation	Extent to which Enterprise Members are willing to be Vulnerable to Others	High severity of punishment for conflict with the dominant theoretical perspective	Moderate of punishment for conflict with the dominant theoretical perspective	Low of punishment for conflict with the dominant theoretical perspective	Low severity of punishment for conflict with the dominant theoretical perspective
	Purpose of Participation Definitions	Means-ends Dominant usages	Means-ends Dominant usages	Moral right of inclusion Consensus after competition in intellectual market	Moral right of inclusion Consensus after competition in intellectual market

Table 35 Continued

Concept: <i>Leadership / Authority / Governance</i>	Clarifying Concept	Autocratic (Fu, 1993)	Bureaucratic (Jennings, 1962)	Pluralistic (Alford & Friedland, 1992)	Cognitive (Lakoff, 2008)
Situational Contexts					
Legitimacy	Who has the Power to Act	Elites	Elites	Individuals	Individuals
	Truth	Established by authoritative procedures	Established authoritative procedures	Human activity and experience (praxis)	Human activity and experience (praxis)
	Epistemological Argument	Struggle over ideology	Conflict over domain	Criticism of assumptions	Struggle over ideology
Fear	Ambiguity	Low tolerance for ambiguity	Low tolerance for ambiguity	High tolerance for ambiguity	High tolerance for ambiguity
	Humility	Significant fear of ideas / decisions being poorly received	Moderate fear of ideas / decisions being poorly received	Low fear of ideas / decisions being poorly received	Low fear of ideas / decisions being poorly received
Structural Contexts					
Boundaries	Described	System Dynamics: boundary as the closure of a purposeful system	Viable Systems Model: Boundary as the closure of a purposeful system	Open Systems: Boundary as a cross-system interface and frontier access across which the enclosed system acquires resources crucial for its survival	Soft-Systems Methodology: Boundary as the area 'within which the decision-taking process of the system as power to make things happen, or prevent them from happening'
	Organizational Level of Analysis	Dominant and subordinate organizations	Mediating associations	Mediating associations	Mediating associations
	Internal Structures	Contradictory	Differentiated	Complex	Complex

Table 35 Continued

Concept: Leadership / Authority / Governance	Clarifying Concept	Autocratic (Fu, 1993)	Bureaucratic (Jennings, 1962)	Pluralistic (Alford & Friedland, 1992)	Cognitive (Lakoff, 2008)
Structural Contexts					
Dominance	Social Stability	Repression	Control	Integration	Integration
	Key Level of Power	Societal Hegemony	Organizational domination	Individual influence	Individual influence
	Patterns of Social Relations	Positions	Positions	Roles	Roles
	Inequality	Hierarchy	Hierarchy	Stratification	Exploitation
	Who Rules	Political elites	Political elites	Governing coalitions	Governing coalitions
	Result of Action	Control	Control	Integration	Integration
Communication	Power Relations	Hierarchy and force	Hierarchy and force	Coalitions and contracts	Coalitions and contracts
	Institutions	Control	Control	Socialize	Socialize
	Dominant features of globalization	N/A	World less interdependent than in 1890s	Global capitalism, global governance, global civil society	N/A
	Driving forces of globalization	States and markets	Capitalism and technology	Capitalism and technology	N/A
	Pattern of stratification	Erosion of old hierarchies	N/A	Erosion of old hierarchies	N/A
	Conceptualization of Globalization	As internationalization and regionalization	N/A	N/A	As a reordering of the framework for human action
Geography					

In the autocratic theoretical perspective presented, the emphasis on praxis in theory-method relations, ideologies of a class, and historical realism means ideological goals are implemented and problems are solved through the manipulation of both work and social environments of workers or subjects. This differs from the praxis in the cognitivist who recognizes the systemic influences of social institutions but sees reality as co-constructed through contradictions and building consensus to achieve goals and solve problems. Bureaucrats accept unresolved issues as dilemmas to be solved within an analytical framework that neatly frames the problem and solution within the existing structures and processes of the enterprise. Similar to the cognitivists, pluralists accept created findings but tend to have a traditional societal view of reality where history and structures interact with populations in an evolution of systems over time. Each of these views presents a different way of framing issues, promoting goals, and developing solutions for enterprise transformation problems.

In both autocratic and bureaucratic perspectives there is a strong emphasis on authority where conformity, rather than individualism, is valued. Rationalization and order are characteristics of a well-functioning enterprise. In autocratic perspectives, this view can be extended to social contexts. Pluralists and cognitivists value an integrated enterprise that is largely based on consensus. Tension arises between consensus and the expression of individuality but is perceived as part of the normal functioning of an enterprise, particularly one undergoing transformation. When interests are shared, pluralists and cognitivists experience cooperation while autocrats and bureaucrats experience conformity of enterprise members to existing rules, processes, and structures. When interests are not shared, autocrats perceive a struggle with the dominant ideology. Bureaucrats, skilled at defending domains, see differing interests as opportunity for competition while pluralists view differences as opportunity to debate. Cognitivists can share the bureaucrat's view of differing interests as competition, albeit the resolution of differences may differ in method.

Autocrats tend to be driven by ideological concerns; hence historic narratives can be perceived as class struggles among elites and masses. In modern enterprises, bureaucratic methods are used to ensure conformity of the masses and reduce the possibility of politics. Order and structure dominate the concerns of the bureaucrat, while

pluralists and cognitivists are sensitive to the process of socialization and the interconnectedness of society and the enterprise.

Neither autocrats nor bureaucrats promote trust as a central element. A high degree of checks on subordinates combined with narrow role definitions and punishment mechanisms foster environments of mistrust and suspicion. In contrast, environments that reflect a pluralist or cognitive perspective assume enterprise members will in general perform productively and have the ability to prioritize their work and roles to what is best for the enterprise. In this environment, participation is encouraged and seen as legitimate; in autocracies and bureaucracies only the leadership is empowered with legitimate participation rights.

Within structural contexts, autocracies and bureaucracies place an emphasis on top-down structure, positions, and well-described boundaries. Boundaries are less rigid in enterprises that tend toward pluralistic or cognitive perspectives. Role definition, individual influence, and structures that shift according to social and task contexts ensure the enterprise is flexible and adaptable to stimuli, while autocracies and bureaucracies tend to institutionalize the status quo with doctrine, processes, patterns of communication, and language.

As enterprises undergo transformation, shifting states of cooperation, frustration, and paradigmatic hegemony will emerge depending upon the specific stimuli motivating the transformation as well as specific systemic, situational, and structural contexts. Leadership, governance, and authority are concepts that permeate all three contexts within the enterprise. Significant insights into the political behavior that might emerge may be gained from the examination of these concepts alone. However, further research that incorporates specifics of the enterprise transformation is needed in order to make the theoretical framework useful for practical applications.

VALIDATION OF THE FRAMEWORK

In Chapter IV, I show how the qualitative metrics strengthen the adherence of the research to the *Canons of Science*. Table 36 below summarizes the linkages; further details of what is contained in this table are found in Chapter IV.

Table 36 Canons of Science and Qualitative Metrics

Canon of Science	Qualitative Metrics
Internal Validity (Truth Value)	Clear chain of evidence; plausibility, researcher position. In addition, sound primary sources and the analysis of existing frameworks in Chapter II strengthened adherence to this criterion.
External Validity (Applicability)	Usefulness; subsuming particulars into the general. In addition, documented theorizing to general results to a broader theory (the framework) and expert peer review strengthened adherence to this criterion.
Reliability	Clear chain of evidence; fairness; noting patterns; contextual completeness. In addition, expert peer review strengthened adherence to this criterion.
Objectivity	Clear chain of evidence In addition, the development of appropriate artifacts (tables, appendixes, etc.) documenting steps strengthened adherence to this criterion.

As scientific evidence of a scholarly study, this section uses the language of validation used by qualitative researchers to advance the possibility of replicating the research, discussing the generalizability of it, and determining the accuracy of the account (Leedy, 1997, p. 157). Through this process, I strengthen the validation of the framework to answer the second question posed in this research.

The broad set of literature examined and the ambiguity of language across disciplines indicates that the research is not suitable for methods such as grounded theory, where the chain of evidence is quantitatively documented through the development and coding of categories through which theory emerges. While adherence to the *Canons of Science* and the qualitative metrics below strengthen the validation, adherence of the research to critical ideology strengthens the validation of the framework further.

As mentioned in Chapter IV, the rich, contextual nature of this research is well documented in the Chapters and appendixes providing a general orientation to the reader of what types of variables should be taken into account, without any specification of relationships among these variables (Adams, 2007, Merton, 1968, Weick, 1995). I explain how critical ideology guides the research, ensuring that concepts considered are both politically and historically situated. The criteria for research that is critical, and the critical-ideology criteria, were documented in Chapter VI. Concepts that were derived from the literature are specified in Chapter V and are further specified, clarified, and

defined in this same chapter. Hence, the form of theory developed, using critical ideology, is a general orientation where I describe the dimensions and typology of power that researchers should take into account when analyzing politics in enterprise transformations.

The method of theory construction is inductive reference which was explained in Chapter IV and is based on the work of Bourgeois (1979) and Adams (2007). I partitioned the field in Chapter II, clarifying the purpose, objectives, questions, and propositions to be answered and developed a literature scheme. The theory supporting the theoretical framework, which guided the development of the twelve dimensions, was generated through comparative analysis of substantive theories associated with the analysis of politics relevant to enterprise transformations. I documented the contested areas found in the literature and explained the limitations in Chapters I, II, and VII.

In the following paragraphs I further strengthen the validation of the theoretical framework with the use of qualitative metrics described in Chapter IV. The adherence to critical ideology in the development of the theory and use of qualitative metrics provide a strong validation of the theoretical framework answering a major question proposed in this research.

Noting Patterns

A broad and clearly documented literature review is conducted in Chapter II to narrow the literature to works relevant to the research. Primarily in Chapter II but all throughout the document, I synthesize the data and reduced hundreds of articles to a set of primary sources, describing the logic used during each step. Patterns in both theory and the primary focus areas emerge, resulting in the clarifying concepts and concepts that meet the critical-ideology criteria. The challenge of the analytical process of identifying patterns and connections is described by Ritchie and Spencer (2002):

This part of the analytical process is the most difficult to describe. Any representation appears to suggest that the analyst works in a mechanical way, making obvious conceptualizations and connections, whereas in reality each step requires leaps of intuition and imagination. The whole process of immersion in the data triggers associations, the origins of which the analyst can scarcely recognize. (p. 321)

Unexpected patterns or the lack thereof, emerged from the literature and are addressed in Chapter VII. While the typology of power was based on Lukes (2005) and Alford and Friedland (1992), the twelve dimensions described reflect qualitative patterns that emerged in the primary literature sources. A second level of patterns was found in the identification of clarifying concepts, which are documented in Appendix C: Theoretical Framework Construction. However, the inherent ambiguity in the language and idiosyncrasies in the descriptions of theoretical perspectives resulted in a lack of convergence to four clear articulations of autocratic, bureaucratic, pluralistic, and cognitive perspectives. As a result, a single author's conception of each theoretical perspective is chosen to answer the first question posed by this research.

Fairness

This research examines a broad array of literature from political science, international relations, sociology (including psychology), organizational theory, mathematics, and complexity theory. The synthesis found common issues addressed on the topics of politics, power, influence, and enterprise transformations. The most striking variations are represented in terms of clarifying concepts in this Appendix C: Theoretical Framework Construction.

Guba and Lincoln (2005) describe *fairness* in research: "Fairness [is] thought to be a quality of balance; that is, all stakeholder views, perspectives, claims, concerns, and voices should be apparent in the text" (p. 207). The broad variety of literature and encompassing synthesis ensured fairness as multiple perspectives across a variety of disciplines were carefully considered and conclusions documented in this research. However, as noted above, one "instance" of a theoretical perspective in the theoretical framework is necessary to answer the first research question. Application of the framework without the additional features described in Chapter VII may result in unintended biases that affect the political analysis. However, the theoretical basis for the framework, as presented in this chapter, is strong and supported by a broad foundation of relevant research.

Subsuming Particulars into the General

For both qualitative and quantitative research, “A research study’s findings are generalizable to the extent that they can be applied to individuals or situations other than those in which the findings were obtained” (Gall, et al., 1996). Qualitative conceptions of generalizability are concerned with “the interaction of testing and the experimental treatment, the interaction of selection and treatment, reactive arrangements, and the interference of multiple treatments with one another” (Schofield, 2002, p. 172). There are numerous characteristics of qualitative research that do not adhere to quantitative conceptions of generalizability. For example, the emphasis on case studies in qualitative research is inconsistent with the requirement for statistically relevant samples in quantitative research (Schofield, 2002, p. 173). This research is highly contextual and concerned with political behavior in complex and dynamic environments; hence, quantitative conceptions of generalizability are not well suited to the validation process. Guba and Lincoln (1981) describe the relationship between context and generalizability:

It is virtually impossible to imagine any human behavior that is not heavily mediated by the context in which it occurs. One can easily conclude that generalizations that are intended to be context free will have little that is useful to say about human behavior. (p. 231)

Schofield (2002) describes the emerging consensus among researchers regarding generalizability “as a matter of the ‘fit’ between the situation studied and others to which one might be interested in applying the concepts and conclusions of that study” (p. 198). Furthermore, Schofield (2002) writes, “This conceptualization makes thick descriptions crucial, since without the one does not have the information necessary for an informed judgment about the issue of fit” (pp. 198-199). Hence, within the literature review the focus areas that compared and contrasted existing frameworks were an important element of generalizability.

The literature is examined for multiple, overlapping purposes supporting the main research question. First, the literature is examined in the categories of politics, power, influence, and enterprise transformation. The particulars that resulted are then further examined for their applicability to five focus areas, and include a survey and critique of existing frameworks for the analysis of politics. Finally, each of the three contexts is explored, decomposing the results of the literature review across twelve different

dimensions to critically examine the key issues in each dimension. The result is the development of clarifying concepts, which help to clearly distinguish between theoretical perspectives. These particulars are then subsumed into an integrated holistic framework for the analysis of politics in enterprise transformations. This deconstruction and construction saturated the literature, ensuring the literature-based framework was based on an analytically sound foundation.

Seeing Plausibility

As I mentioned in Chapter IV, plausibility “is a matter of judgment about the quality of the data within the design limitations” (McMillan & Schumacher, 2001, pp. 480-481). The quality of data is derived from peer-reviewed scholarly works concerned with politics, power, influence, and enterprise transformations. Critical ideology requires that the literature be both politically and historically based, hence the quality of the data reflects concepts that have persisted over decades, and in some cases, centuries. In addition, there is a strong correlation between the theoretical basis for the framework constructed and similar frameworks that examined specific case studies such as Allison and Zelikow (1999). Hence, with additional work beyond the scope of this research, the applicability of the theoretical framework to the analysis of politics in enterprise transformations is reasonably plausible. Historical examples within the primary literature and, when possible, extensive empirical studies such as Bales and Couch (1969) and Agle and Caldwell (1999), strengthen the plausibility of the theoretical framework. While a single theoretical perspective is chosen to represent autocratic, bureaucratic, pluralistic, and cognitive perspectives, plausibility is strengthened with the use of rough set theory in Chapter VII. This strengthening introduces an evolving framework that is a novel contribution to the field of engineering management.

Clear Chain of Evidence

Gall, Borg, and Gall (1996) offer six types of documentation to be considered for inclusion in an audit trail that makes the chain of evidence explicit: (1) source and method of recording raw data, (2) data reduction and analysis products, (3) data reconstruction and synthesis products, (4) process notes, (5) materials relating to

intensions and dispositions, and (6) instrument development information (p. 576). While the authors note that a study which includes all these documents would be inordinately long, many of these artifacts are developed and incorporated throughout this document.

Establishing a strong chain of evidence among research questions, methodology, raw data, and findings is also believed to strengthen the validity of the study. If readers can follow the researcher's reasoning, they can determine whether the conclusions offered are logical or not. (Leedy, 1997, p. 169)

To increase the validity of the theoretical framework, I emphasize validity and reliability through the use of peer reviews and traceability verification. Reliability in qualitative research is related to the chain of evidence and ensures that similar observations and decisions will be made by researchers with similar backgrounds to my own (Creswell, 1994, pp. 157-159). However, reliability in qualitative research is limited. The contextual richness of the research mitigates against replicating it exactly in a different context. Creswell (1994) states: "statements about the researcher's positions – the central assumptions, the selection of informants, the biases and values of the researcher – enhance the study's chances of being replicated in another setting" (p. 159). I documented these statements in Chapters I, III, and IV, as well as within this chapter.

The criteria for the choice of experts and theory behind expert judgment are described in Chapter IV. I used a peer review team consisting of two students from Old Dominion University's Graduate Program in International Studies. The team conducted a peer review of the research including an examination of data collection methods, theory construction, and the coding of texts. The team also performed a traceability verification to ensure the study remained consistent with the research methodology and to ensure the research attained the level of credibility associated with similar studies using the same methodology. The team consisted of individuals who are experts on politics within and external to enterprises such as NATO.

There are a few limitations to peer review validation criteria that are noted here and considered in Appendix B: Peer Review Procedures. First, my own philosophical biases influence the design of the peer review procedures and interpretation of the results to some degree: biases can never be eliminated. I have tried to reduce bias by noting

when it may occur, and in what form, throughout this document. Second, the interview approach and selection of participants occurred locally and with people associated with Old Dominion University. A blind peer review would remove issues associated with familiarity and broaden the experience base of reviewers and strengthen the validation criteria. However, given the experience and academic experience of the researchers involved, I judge this peer review process sufficient to establish reliability in data collection methods, theory construction, and the coding of texts ensuring reasonable repeatability appropriate to qualitative research.

Contextual Completeness

Contextual completeness refers to the extent to which a comprehensive view of the situation is provided (Leedy, 1997, p. 168). Gall, Borg, and Gall (1996) write “The more comprehensive the researcher’s contextualization, the more credible her interpretations of the phenomena” (pp. 572-573). There is no doubt that this research has taken a comprehensive contextual approach to the development of the theoretical framework. I explore multiple research inquiry paradigms, analysis from different levels across the enterprise, and issues with specific disciplines as they pertain to the analysis of politics in enterprise transformations. Gall, Borg, and Gall (1996) and Leedy (1996) both emphasize the importance of locating research in historically-based contexts. In Chapter II, I conducted a broad and thorough literature review, using an encompassing reduction process to reduce the literature to a broad array of primary sources used in the construction of the framework. I documented the comprehensive approach to research in Chapters II and IV.

Usefulness

This research is for the scholarly community, not the community of practice. Leedy (1997) describes usefulness as such: “Usefulness refers to whether the research report enlightens those who read it or moves those who were studied to action” (p. 168). Another way in which qualitative research can be useful is if it liberates an individual or group (Gall, et al., 1996, p. 572). In the latter sense, this research liberated potential theoretical perspectives from marginalization by the dominant paradigm. The dialectic

analysis and critical research approach insists on multi-vocal debate and discussion as part of the process of enterprise transformation.

In terms of usefulness of the theory developed, there are essentially two criteria that may be used for assessing progress in theory development. One criteria is changing the debates within the discipline and another is the organization of the field as an academic discipline (Kratochwil, 2006). Both of these criteria are overambitious for this research project. Instead, I validate the usefulness by focusing on the purpose of theory as described by Cox (1981):

...the pressures of social reality present themselves to consciousness as problems. A primary task of theory is to become clearly aware of these problems, to enable the mind to come to grips with the reality it confronts. Thus, as reality changes, old concepts have to be adjusted or rejected and new concepts forged in an initial dialogue between the theorist and the particular world he tries to comprehend. This initial dialogue concerns the *problematic* proper with a particular perspective...Beginning with its problematic, theory can serve two distinct purposes. One is a simple, direct response: to be a guide to help solve problems posed within the terms of the particular perspective which was the point of departure. The other is more reflective upon the process of theorizing itself: to become clearly aware of the perspective which gives rise to theorizing, and its relation to other perspectives (to achieve a perspective on perspectives); and to open up the possibility of choosing a different valid perspective from which the problematic becomes one of creating an alternative world. (p. 128)

It is in this latter sense of purpose and usefulness for which the research has been designed. That is, to provide at a theoretical level a framework that might create opportunities for addressing the problems found within enterprise transformations where reality is fundamentally changing from the status quo, calling into question old concepts that need to be adjusted or rejected and providing opportunities for new concepts to be developed.

Researcher Positioning

Gall, Borg, and Gall (1996) write that the interpretations a researcher may make are more credible if the she “demonstrates sensitivity in how [s]he relates to the situation being studied” (p. 573). Leedy (1997) echoes the recommendation:

Research positioning refers to a researchers' awareness of their own influences (both subtle and direct) in the research setting. These influences (e.g., beliefs, values, biases) must be made explicit so that the readers can determine for themselves the credibility of the findings. (p. 168)

My own perspective is shaped by many enterprise transformation and political experiences and events. If I analyze my own perspective it primarily falls in a pluralistic theoretical perspective, with strong tendencies toward the opportunities offered by cognitive science and the cognitive perspective. I have been a part of transformational efforts for more than a decade, both within the United States and in multi-national contexts, observing the tensions as bureaucracies struggle to transform military forces to meet the possible future environment. Another significant influence is my background in dynamical systems theory with an emphasis on discovering patterns in chaos. Due to this background, I found the concept of dynamical frustration (Binder, 2008) extremely useful to understand politics in enterprise transformations.

CHAPTER SUMMARY

In this chapter the theoretical framework answers the first question posed by this research: what framework can be developed for the analysis of politics in enterprise transformations? The paradigmatic model is populated with data on four different theoretical perspectives set in twelve dimensions. This framework provides a theoretical foundation for the development of practical applications for the analysis of politics in enterprise transformations. I explore implications of this research for engineering managers in Appendix F: Implications for Engineering Managers.

The theoretical framework that answers the first research question is rigorously validated with qualitative metrics from frequently referenced scholarly books on qualitative validation. In addition, the research adheres to the *Canons of Science*. The theory developed meets stringent and robust validation criteria and the validation processes is strengthened with the application of rough set theory in Chapter VII. Static frameworks found in the literature are unable to deal with the ambiguity of language in the literature and the sometimes conflicting descriptions of theoretical perspectives.

The studies by Kasza and West (1987) highlight the fact that theoretical perspectives are important, but there is no “grand theory” for each theoretical perspective. Or, as Kratochwil (2007) writes, “As the history of religions and the project of enlightenment show, there is simply no way of getting from the universality of humanity, based on either the status as children of God, or on the notion of reason, to the concrete arrangements and practices that are the basis for our political life” (p. 499). Politics, literature, and language are fuzzy, imprecise, and subject to misconceptions. My research builds on these observations and the validation conclusions with the development of an evolving framework in the next chapter.

The theoretical perspectives presented in this chapter are representative of a “family” of perspectives. Each member of the family may have slightly different entries in the table due to 1) the world view of the researcher and inquiry perspective, 2) the historical or political context in which the concept is being considered, or 3) the specific enterprise under consideration. Yet the theoretical framework presented in this chapter is useful for it provides a general guide to the types of tensions between perspectives that might exist when the concept of *leadership / authority / governance* is discussed. Understanding the theoretical perspectives from where people approach concepts helps 1) the individual to better understand his or her positions, 2) the individual to understand where he or she fits in relation to other theoretical perspectives at work, 3) the analyst, manager, or leader to clarify the areas where there may be friction, cooperation or paradigmatic hegemony, and 4) to provide a vocabulary for researchers, managers, and leaders to discuss transformation in terms other than those that tend to affirm current realities. Together, these benefits help the person using the framework understand where there are opportunities for building alliances to shape systemic, situational, and structural arrangements.

CHAPTER VI: DISCUSSION OF IMPLICATIONS

The strongest is never strong enough to be always master, unless he transforms his strength into right, and obedience into duty.

-Jean-Jacques Rousseau, *Social Contract*, 1762

CHAPTER OVERVIEW

This chapter discusses the theoretical framework as an organizing device for analyzing politics in enterprise transformations and examines the societal and philosophical implications of the research. Furthermore, I consider a thought experiment to illustrate the current challenges in analyzing politics in enterprise transformations and why that challenge is important to engineering managers. I also describe how this research may provide a foundation for applications that address these challenges, although further work beyond the scope of this research is needed for practical applications of the theoretical framework. In the previous chapter, I present the theoretical framework and demonstrate validity of the framework. In Chapter VIII, I discuss the implications of this research on future research and pose possible questions that might be useful to answer. In addition, in Appendix E: Implications for Engineering Managers, I discuss specific strategies for the management of politics based on the theoretical framework developed in this research. This chapter and Appendix E: Implications for Engineering Managers represent a break from the rigorous development and validation of the framework. The development of the theoretical framework expands with a greater level of detail in each chapter and appendix; the complexity is necessary to capture the dynamic nature of politics in enterprise transformations. This chapter and the appendix mentioned address the expansive character of the research by refocusing the reader on “the story” about why this research is important. The intent this chapter is to draw out the implications and taper the impact, implications, and meaning down as an epilogue to the presentation of the theoretical framework.

THE EPF AS AN ORGANIZING DEVICE

The theoretical framework, the EPF, is an organizing device for analyzing political phenomena in enterprise transformations and transcends time, place, and personality. As such, the research required a high level of abstraction for the development of the dimensions contained within the theoretical framework. In the literature review I examine many frameworks that use the dialectical approach or are used for the analysis of politics; none of the frameworks examined have been "real" but each provides its own explanatory power. Indeed, the theoretical framework presented here is not "real;" however, the breadth of both politically and historically situated literature, the adherence of the research to critical ideology, the specified typology of power, and the dialectical nature of the framework result in a theoretical framework that is far more encompassing of the types of political dynamics that occur in enterprise transformations than the frameworks examined.

The theoretical framework provides a way for researchers to see the different theoretical lenses through which individuals and groups may see the world. These different views result in different facts and data examined to describe the world. Hence, different kinds of evidence are required in each theoretical perspective to make their positions more persuasive. These nuances can significantly impact the management and design of systems and are even more pronounced as systems become more complex and stakeholder pools increase and become more diverse. The theoretical framework is well suited to analyze these dynamics. Though complex, its rigorous derivation from a broad set of literature across numerous disciplines has resulted in dimensions that taken together can account for a multitude of political phenomena. Empirical studies using the theoretical framework will further strengthen the validation of the framework.

Politics occurs at multiple levels in the enterprise and this actuality was a significant consideration in the design and construction of the theoretical framework. Of concern was the major unit of analysis when examining politics in enterprise transformation. For example, in international relations, more often than not the state is used as the major unit of analysis. A dominant unit for the analysis of politics in enterprise transformations is not as clear. As I discuss in Chapter II, the literature on politics can largely be divided into analysis on elite groups and individuals and analysis

on the masses. The unit of analysis chosen makes one look at certain things so the researcher must be aware of differences in this assumption. In the theoretical framework developed, the typology of power reflects a societal level of analysis in the systemic context, an individual or group level of analysis in the situational context, and an organizational level of analysis in the structural context (Alford & Friedland, 1992). This robustness, along with the twelve dimensions in these contexts, accounts for these different levels of analysis.

SOCIETIAL IMPACTS

Contemporary thought is largely driven by written narratives and the culture of print (Knodt, 1995, p. ix). As evidenced by the results of the literature review, much of literature related to the analysis of politics in enterprise transformations is within the situational context. There are a plethora of studies and books on specific enterprise situations and cultures in addition to popular books on strategies for leaders of enterprises. In these cases, the time horizon is near-term and the level of abstraction from reality is low. The framework developed allows for a range of time horizons and abstractions from reality by incorporating a typology of power over systemic, situational, and structural contexts. Hence, future research using the theoretical framework is necessarily broadened to include long time-scales and higher abstractions of reality. This broader horizon can be critical when analyzing potential strategic alliances that may form.

Studies have shown that when leaders and policy makers are under stress, they tend to perceive a smaller number of alternative courses of actions and may reach fewer and perhaps more predictable conclusions (Holsti, 1995, p. 4). This psychological phenomenon can be exploited by competitors or adversaries. Recall Assumption 8 in Chapter I:

- Political behavior evolves in such a way as to minimize uncertainty in the view of the agent who employs power and influence (Wimsatt, 2007, p. 209-213).
- The agent produces political behavior that is intentionally unpredictable to competitors or adversaries (Wimsatt, 2007, p. 212).

- The political behavior of the agent aims to render as predictable as possible required resources to reduce uncertainty in systemic, situational, and structural arrangements (Wimsatt, 2007, p. 212).

By disciplining one's self to continuously examine all three contexts of potential cooperation, frustration, and paradigmatic hegemony, new possibilities for action may present themselves.

The existence of politics within an enterprise is inconvenient for normative views of enterprise behavior. Decision management tools, time cards, job descriptions, organizational charts, processes, rules, and concepts attempt to mechanize the activities and thought of organizational members. Yet these same approaches are contrary to the very idea of transformation. To allow for the possibility for paradigmatic hegemony to be broken, the enterprise must foster an environment of individualism. Bendix (2001) notes this contradiction in his study of management ideologies as the entrepreneurial class in the United States, England, and Russia develop and institutionalize industrial society:

Subordination and discipline are indispensable in economic enterprises. In the Western world, spokesmen of industrial advance were vociferous in their praise of individual effort and defending the right of the successful man to manage his property as he saw fit. Ostensibly, these ideas vouchsafed the individualism of a capitalist economy, but in practice they were meaningless without the subordination of many which gave very little room to the cultivation of individualism. In the Soviet Union, spokesmen of industrial advance were equally vociferous in their praise of collective ownership and effort. And they justified the need for subordination by the claim that all workers are owners and hence subject to their own authority as represented by the dictatorial party. These equivocations have become an issue in a worldwide conflict of ideas in which the freedom of the individual is at stake. Only two things seem certain. The equivocations concerning individual and collective ownership cannot be taken at face value; and individual freedom cannot be synonymous with the absence of subordination. Apparently, there are individualist and collectivist forms of subordination in economic enterprises. (p. xxii)

The vociferous arguments for the subordination of individuals are deeply embedded in current management ideologies often intensifying efforts to institutionalize existing power structures through autocratic and bureaucratic means. The dialectic approach is critical when these types of management ideologies become hegemonic and

eliminate the possibility of significant change. In the spirit of the ancient Greeks such as Heraclitus, Plato, and Aristotle, by including opposing or significantly different perspectives in knowledge creation enterprises can reach beyond their current realities to create new possibilities and better anticipate the political actions of others.

However, politics and the dialectic is not solely about creating possibilities and anticipating political actions. It is also about establishing legitimacy, as Rousseau alludes in the opening quote of this chapter. In Appendix E: Implications for Engineering Managers, I discuss in detail the process of breaking paradigmatic hegemony and establishing legitimacy in the process of enterprise transformation. The framework provides the opportunity to discuss positions in theoretical perspectives normally shunned in current management paradigms. Each dimension within the theoretical framework brings a critical element of these positions to the table. This represents a significant shift in relationship between subordination through individual and collective ownership and individual freedom. It is not as idealistic as Habermas' (1984) ideal speech situation but it does provide a theoretical framework from which existing communication patterns, processes, power structures, and language can be critically examined.

PHILOSOPHICAL IMPLICATIONS

This section describes the philosophical implications of the research drawing from the assumptions in Chapter I and the research perspective in Chapter III. The following summarizes the assumptions used in the theoretical framework and described in Chapter I:

1. Problems cannot be isolated from the system that is producing the problematic behavior (Keating, 2001).
2. The problem system cannot be understood independently from the context in which it is embedded (Keating, 2001).
3. Perceptions of reality improve with an understanding of limitations and penalties incurred (Sousa-Poza & Correa-Martinez, 2005).
4. Our capability to design and manage complex situations is improved if we understand and accept the limitations of our understanding (Sousa-Poza & Correa-Martinez, 2005).

5. A reality exists as a construct, which is both separate and part of the observer, and is beyond the observer's full understanding (Sousa-Poza & Correa-Martinez, 2005).
6. Knowledge and knowledge development requires the bounding of reality to extract a bounded domain (Sousa-Poza & Correa-Martinez, 2005).
7. The domain bounds all that is knowable not necessarily known. Our perception is bounded for the same reason that reality is bounded (Sousa-Poza & Correa-Martinez, 2005).
8. Political behavior evolves in such a way as to minimize uncertainty in the view of the agent who employs power and influence (Wimsatt, 2007).

Assumption 8 is more thoroughly described in the previous paragraph on societal impacts of the research. The boundaries of these assumptions are transcended to some degree by the choice of the dialectic approach and the choice of the typology of power. Heraclitus (1979) argued that the dialectic was necessary for man to understand the world in which he lives. Assumptions 5, 6, and 7 persist but existing states of knowledge and the understanding of the observer are continually transcended through the dialectic. By continual engagement with other theoretical perspectives, different, and often inconsistent facts of existence converge in an overlapping, multi-dimensional mosaic of reality that continually shifts in states of cooperation, frustration, and paradigmatic hegemony. The theoretical framework structures the analysis of politics but it will always be itself an abstraction of reality, albeit a robust and holistic abstraction. Studies in neuroscience, cognitive science, and neurobiology discussed in this research support these assumptions and are thoroughly discussed in Chapters II, III, Appendix C: Theoretical Framework Construction, and Appendix E: Autocratic, Bureaucratic, Pluralistic, and Cognitive Perspectives. The way in which people conceptualize concepts leaves significant room for change using the dialectic and critical management approaches.

As mentioned before, the framework assumes a typology of power over systemic, situational, and structural contexts. This assumption is philosophically significant in that it advances a theoretical framework that encompasses three different time horizons and three different levels of abstraction from reality. Few, if any, engineering managers have

the time to develop an understanding of insights from research in sociology, political science, international relations, mathematics, organizational theory, and complexity theory. This theoretical framework provides clarifying concepts derived from this broad set of literature that distinguishes theoretical perspectives dimension by dimension.

Philosophically, the ambiguity of language and the nature of reality are antithetical to the categorization of theoretical perspectives by distinct labels and descriptions. Instead, families of theoretical perspectives are made available in the analysis through the application of rough set theory. The resulting evolving theoretical framework which is described in Chapter VIII allows researchers to examine ranges of theoretical perspectives and is a significant contribution to the field of engineering management.

The theoretical framework encompasses phenomenon consistent with behaviors found in dynamical frustration. Systems that exhibit geometrical frustration are sensitive to small changes that create large effects. Once “tipped,” such systems either oscillate between cooperation and frustration or settle into a state of equilibrium or paradigmatic hegemony, in the case of this research. Each dimension of the framework considers an area where politics might emerge and affect the entire enterprise transformation. Yet enterprises also exhibit scale frustration where these dynamics occur at multiple levels in the enterprise. Politics at one level may significantly impact another level, “tipping” the enterprise as a whole or creating inertia that hinders the transformation effort or reduces the number of alternative actions considered. In addition, computation frustration is exhibited as each theoretical perspective indicates what counts as knowledge and “proof.” As different theoretical perspectives combine, the enterprise transformation system requires higher and higher levels of abstractions to understand the political behavior. Rational actor models provide limited insights into these phenomena and understandably so; as Gödel demonstrated in his incompleteness theorem, there are logically consistent theorems when viewed from the inside, but consistency is insufficient to guarantee what was proved is incorrect when viewed from outside the system (M. Davis, 2000, pp. 123-124). While Gödel’s proof was based on mathematical systems, his conclusions are consistent with the assumptions and results of the research. The theoretical framework provides a significant contribution to the body of knowledge concerned with the analysis

of politics in enterprise transformations by allowing for the inclusion of families of theoretical perspectives and the introduction of dimensions of data that may be inconsistent, contrary, and shifting between ranges of positions for consideration in the analysis.

THOUGHT EXPERIMENT

This section presents a thought experiment to illustrate some of the societal and philosophical impacts of the research. The experiment is set in the future to remove it from current geopolitical contexts. The thought experiment considers the development of a biometric database for a future space colony. Politics occurs at the team, enterprise, state, and international organizational level. The engineering manager of the future has become a virtual expert in diplomacy as he or she maneuvers political minefields but also embraces politics as part of the creative process of problem definition, design, and solution development. Over years the EPF has evolved to include data from numerous studies on politics in enterprise transformations, providing the engineering manager with a rich set of “lessons learned” from which to support his decisions and actions. In Appendix E: Implications for Engineering Managers, I explore possible research directions that may support the development of such a database.

Biometrics is “a general term used alternatively to describe a characteristic or process” (National Science & Technology Council (NSTC) Subcommittee on Biometrics, 2006, p. 4). As a characteristic, biometrics is “a measurable biological (anatomical and physiological) and behavior characteristic that can be used for automated recognition,” and as a process, biometrics describes “automated methods of recognizing an individual based on measurable biological (anatomical and physiological) and behavioral characteristics” (National Science & Technology Council (NSTC) Subcommittee on Biometrics, 2006, p. 4).

The fictional engineering manager, Jack, is in charge of developing a biometrics database for a future space colony. The space colony will be made up of representatives from eleven different countries across the world. His own team is made up of individuals from each of the countries with varying degrees of political and engineering expertise. In some cases, nations have provided highly skilled individuals with minimal political

agendas. In other cases, individuals are clearly present to promote specific political agendas. Blocs of nations conceptualize biometrics in the same way yet these same patterns of conceptualization are not isomorphic to Jack's team. Jack knows that he and his nation could develop a biometrics database that solves the requirement within a few months. However, the database contents, processes, rules, governance, and language would be designed to fit his own theoretical perspective and that of his nation. The eleven nations would not accept this solution for a variety of reasons; hence Jack has been given great leeway in his timeline and final design. He considers "the enterprise" to be the multi-billion dollar corporation he works for, yet Jack understands that this enterprise lives within the alliance of nations interested in populating the colony. It is a situation ripe for the use of the future EPF.

Jack first uses his framework to understand his team. Together they discuss their world views, values, interests, and through the conversation historic narratives emerge. Jack notes what counts as knowledge for his team members and the values, interests, and historic narratives most relevant to the biometric problem. In addition to the systemic context, Jack gains insights on what his team members fear most, the level of trust between members and in biometrics, who participates and when, and how legitimate each member sees other team members positions as well as the project as a whole. From the knowledge Jack gains, he uses the EPF to analyze politics in this micro level of enterprise transformation and conducts an open discussion on the concept of biometrics and potential areas of cooperation, frustration, and paradigmatic hegemony he sees as the team addresses the challenge at hand. His first priority is to break existing paradigmatic hegemonies that will narrow the possibilities the team considers in design, and to build trust among team members. Jack knows this step is critical, for each team member will have a role in working through the politics external to the small team.

Jack already has a relatively good understanding of the politics in his own enterprise. Throughout problem definition, design, and solution development Jack continually uses the EPF to gain insights into how aspects of the design will interact with the theoretical perspectives of executive leadership, accountants, the legal office, and his colleagues. Sub-optimal design elements will need to be socialized early with executive management to allow their engagement with nations on issues related to legal, ethical,

cost, schedule, or moral concerns about biometrics, as well as to support their engagement with board members. Some nations that are stakeholders in the colony have historically experienced high degrees of corruption within their governments. Their historic narrative is one of mistrust of the government which motivates fear in how biometric data might be used. Other governments are split between the protection of individual freedom and privacy and the need for transparency in order to 1) protect colonists from criminals and terrorists who might infiltrate the colony, 2) ensure rapid and accurate medical care of colonists, and 3) facilitate the efficient operation of a biometrics based commerce system.

The team itself takes time to discuss the positions each of the eleven nations has on biometrics in general and the impact of these positions on the design of the system. He encourages team members to engage their nations to educate and build strategic alliances for the project. By now, Jack has a reasonable idea of the areas where politics might emerge and crafts a vision that will build unity within the team and external support for the project as a whole. He examines the existing structural aspects of his team as well as the structural aspects of the team within his enterprise and the team within the larger set of nations, and makes adjustments to communications, dominance relations, boundaries, and geography as needed. Jack had an initial idea of how he would structure the team and how each of these teams would operate; however, he found the resulting structure largely unexpected. Some of the structural changes require executive leadership or national engagement. He works with leadership and his team to help initiate and institutionalize the changes needed. But throughout the process of design and development, Jack continually refers to the EPF and adjusts systemic, situational, and structural arrangements accordingly.

CHAPTER SUMMARY

This chapter examines the societal and philosophical implications of the research drawing from chapters and appendixes throughout the document. The purpose of this chapter is to take a step back from the rigorous and expansive development and presentation of the theoretical framework in the previous chapter and draw out the implications at a high-level. As an organizing construct, the theoretical framework will

empower the engineering manager to better understand politics within transformation endeavors without requiring a degree in political science or sociology. With further work beyond the scope of this research, the EPF may become a robust and holistic database of lessons learned for leaders, managers, and researchers who are concerned with politics in enterprise transformation.

The research advances the body of knowledge concerned with the analysis of politics in enterprise transformations but also promotes the use of critical management approaches in highly complex and dynamic environments. The use of critical ideology in the development of the framework reveals areas where politics may emerge that are persistent over time, personalities, and situations. Many of these areas are difficult for enterprises to discuss for they expose existing power arrangements. Yet the ability to break paradigmatic hegemony is critical in enterprise transformations, further strengthening the importance of this research.

At a fundamental level, this research addresses why and when individuals are subordinate within an enterprise as it proceeds through the transformation. Over time, both individualist and collectivist forms of subordination institutionalize existing power structures over systemic, situational, and structural contexts. Transformations are about unprecedented change, hence, there is no reason to believe these existing systemic, situational, and structural arrangements should exist in a post-transformed enterprise. This research is a first step in putting these uncomfortable realities on the table as enterprises engage in the process of transformation, or at least empowering leaders, managers, and researchers to better understand where states of cooperation, frustration, and paradigmatic hegemony might emerge.

CHAPTER VII: CONCLUSIONS AND RECOMMENDATIONS

CHAPTER OVERVIEW

In Chapter V, I answer the main questions posed in this research:

- What framework can be developed for the analysis of politics in enterprise transformations?
- How is the developed framework validated, and what can be said about its validation?

I present a theoretical framework for the analysis of politics in enterprise transformation centered on a single concept. This kind of static framework is useful for the type of analysis in the book *Global Transformations: Politics, Economics and Culture* (D. Held, et al., 1999) in which the authors analyzed the concept of globalization over three different theoretical perspectives. From the validation process, I conclude the static framework was unable to deal with the ambiguity of language in the literature and the sometimes conflicting descriptions of theoretical perspectives. As such, validation using the qualitative metrics fairness, noting patterns, and plausibility was not as strong as other validation conclusions. In response to these validation conclusions, this chapter first explores (1) multiple “flavors” of a single theoretical perspective and (2) multiple concepts given an instance of a set of theoretical perspectives. The result is an evolving framework that addresses this weakness in validation.

Secondly, in terms of conclusions and recommendations, I present a summary of the findings of this research and link those findings to the initial research objectives. The significance of the research results is described including the contributions to theory, contributions to the field of engineering management, and the implications for enterprise transformation efforts. I address implication of this research for engineering leaders and managers in Appendix F. I conclude with implications for future research, limitations of the research, and summary.

THE EVOLVING FRAMEWORK

In Chapter V, I demonstrated the weakness of existing frameworks due to their static nature. In addition, the patterns that emerged from analysis of the data failed to show divergence within the literature to a single “meta-theoretical perspective” for the autocratic, bureaucratic, pluralistic, and cognitive perspectives considered.

In this section I use RST to develop an evolving framework that addresses these concerns. First, I use RST to develop valid and possible rules for what counts as a “family” of theoretical perspectives. This exploration addresses weaknesses in existing frameworks where theoretical perspectives are static. What I find in my review is that across disciplines (and within disciplines if the theoretical perspective is not well theorized), the various conclusions, historical interpretations, and casual relationships are highly contested. An adequate vocabulary to delineate the differences does not exist. Rough set theory (RST) provides one way to support the comparison of families of theoretical perspectives. In addition, RST addresses the ambiguities and impreciseness found in descriptions of theoretical perspectives. The second exploration holds a single set of theoretical perspectives constant over several concepts. This view of the framework is useful for the type of historical and case study analysis performed in Allison and Zelikow (1999) in which the authors examined what concepts were at play during the Cuban Missile Crisis over three different theoretical perspectives.

An important point to emphasize is that this research is intended for the academic community, not the community of practice. Significant additional work needs to be accomplished before this framework can be made useful to the community of practice. I address areas of further research at the end of this chapter. In enterprise transformations there may be need for one or more of these different configurations of the data. This study provides the researchers multiple options to explore while increasing the plausibility of the theoretical framework.

As an example of the ambiguity addressed in this section, consider the concept of *leadership / authority / governance*. There may be eight entries that describe this concept in an autocratic perspective, ten entries that describe it in a bureaucratic perspective, and so on. The different concept descriptions within a single theoretical perspective are due to different descriptions in the twelve dimensions. To illustrate this further, consider the

situational dimension of trust and the concept of leadership / authority / governance. An autocrat may consider this concept to include consideration of employee's opinions before making a decision. However, in the literature, an autocrat may as well be described as someone who considers the concept to mean consultation is neither required nor desired. These are two different conceptions of trust relationships that are identified in the literature as falling within an autocratic theoretical perspective. Clearly these two conceptions, captured within the dimensions in the framework, will affect situational power relationships and political behavior in different ways. The nature of the information mined from the literature - imprecise, fuzzy, and incomplete – is particularly suited for the application of RST.

I surveyed over 450 articles resulting in five articles that met the critical-ideology criteria. In addition, several books were identified through the review of the literature on autocratic perspectives. Table 37 and Table 38 depict several different autocratic conceptions of leadership / authority / governance and political culture, respectively. Given the data set and using the language of RST, these two tables represent the valid representations of the concept of leadership / authority / governance and the concept of political culture in autocratic perspectives.

Table 37 Different Autocratic Views of Leadership / Authority / Governance

Reference	Systemic Context				Situational Context				Structural Context				
	World View	Values	Interests	Historic Narrative	Trust	Fear	Participation	Legitimacy	Boundaries	Dominance	Communication	Geography	Autocratic
(Selvestone, 2000)	W ₁₁₁₁₁₁₁₁	V ₁₃₃₃₂	I ₂₂	H ₂₁₂₂₂₁₁	T ₃₃₁	F ₁₁₁	P ₁₂	L ₂₂	B ₆₂₁	D ₃₃₁₁₂₃₃	C ₃	G ₀₂₁₂	Yes
(Gurr, Jagers, & Moore, 1990)	W ₂₂₃₁₁₁₂	V ₁₂₃₃₃	I ₂₁	H ₅₁₂₂₂₂₁	T ₃₃₁	F ₂₁₁	P ₁₂	L ₂₂	B ₆₂₁	D ₃₃₂₂₂₂₂	C ₂	G ₀₂₁₂	Yes
(Magaloni, 2008)	W ₂₂₂₂₂₁₂	V ₁₁₃₃₃	I ₂₁	H ₅₁₂₂₂₂₁	T ₃₃₂	F ₂₂₂	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₂	G ₁₁₃₂	Yes
(Hintz Jr., 1997)	W ₁₂₃₂₂₁₂	V ₁₁₃₃₂	I ₂₂	H ₄₂₂₂₂₂₁	T ₃₂₂	F ₁₂₁	P ₁₂	L ₂₂	B ₈₂₁	D ₂₁₃₂₂₃₂	C ₂	G ₀₀₀₀	Yes
(Baron, Hannan, Hsu, & Kocak, 2002)	W ₂₂₂₁₁₁₂	V ₁₁₃₃₂	I ₃₁	H ₆₂₁₂₃₁₁	T ₃₃₂	F ₂₁₂	P ₁₂	L ₂₂	B ₈₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₁₁₁₂	Yes
(Gibson, 1995)	W ₂₂₂₁₁₁₂	V ₁₁₃₃₂	I ₂₂	H ₆₂₂₂₂₂₂	T ₃₃₁	F ₁₁₁	P ₁₂	L ₂₂	B ₈₂₂	D ₂₂₂₂₂₂₂	C ₃	G ₀₀₀₀	Yes
(Gibson, 1995)	W ₂₂₂₂₂₁₂	V ₁₂₃₃₂	I ₂₂	H ₅₂₂₂₂₂₁	T ₃₃₂	F ₁₁₂	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₀₀₀₀	Yes
Benevolent Autocrat													
(Jennings, 1962)	W ₂₂₁₁₂₂₂	V ₃₂₃₃₃	I ₂₃	H ₄₂₂₂₂₂₂	T ₃₃₂	F ₂₂₁	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₁₁₁₂	Yes

Table 38 Different Autocratic Views of Political Culture

Reference	Systemic Context				Situational Context				Structural Context				
	World View	Values	Interests	Historic Narrative	Trust	Fear	Participation	Legitimacy	Boundaries	Dominance	Communication	Geography	Autocratic
(Shafiqat, 1990)	W ₁₁₁₁₁₁₁₁	V ₁₃₃₃₃	I ₂₃	H ₂₁₃₃₃₂₁	T ₁₃₁	F ₃₂₂	P ₁₂	L ₂₂	B ₃₂₃	D ₃₂₁₂₃₂	C ₂	G ₀₀₁₂	Yes
(Fu, 1993, pp. 1-7, 48)	W ₃₃₃₃₃₃₃₃	V ₁₃₃₃₃	I ₂₃	H ₆₂₃₃₃₃₁	T ₃₃₁	F ₃₁₁	P ₁₂	L ₃₂	B ₃₃₃	D ₃₃₁₃₂₃₃	C ₂	G ₀₂₂₂	Yes
(Fu, 1993, pp. 6, 21-22, 38-46) Totalitarianism* ¹⁹	W ₃₃₃₃₃₃₃₃	V ₁₁₃₃₃	I ₂₃	H ₆₃₃₃₃₃₁	T ₃₃₁	F ₃₂₃	P ₁₃	L ₁₁	B ₆₃₃	D ₃₃₂₃₂₃₃	C ₃	G ₀₂₂₂	Yes
(Fu, 1993, pp. 58-60) Neo-Confucianism	W ₃₃₃₃₃₃₃₃	V ₁₁₃₃₃	I ₂₃	H ₆₃₃₃₃₃₁	T ₃₃₁	F ₃₁₁	P ₁₂	L ₃₂	B ₆₃₃	D ₃₃₂₂₂₃₃	C ₃	G ₂₂₂₂	Yes
(Fu, 1993, pp. 16-17) Feudalism I	W ₁₁₁₃₃₃₂	V ₁₂₃₂₃	I ₃₂	H ₂₁₁₂₃₂₁	T ₃₃₁	F ₂₁₁	P ₁₂	L ₃₂	B ₆₃₁	D ₂₃₂₁₂₃₂	C ₃	G ₀₂₁₂	Yes
(Fu, 1993, pp. 24-25) Feudalism II	W ₂₂₂₂₂₁₂	V ₂₁₂₂₂	I ₁₁	H ₅₁₁₁₁₁₁	T ₂₂₁	F ₂₂₃	P ₁₂	L ₁₁	B ₆₁₂	D ₁₁₂₃₂₂₁	C ₂	G ₁₁₁₂	Yes
(Fu, 1993, pp. 19-21, 39) Hegemonic	W ₃₃₃₃₃₃₂₂	V ₁₂₃₃₃	I ₂₃	H ₂₂₂₂₂₃₁	T ₃₃₁	F ₃₁₁	P ₁₂	L ₂₂	B ₆₃₂	D ₂₃₂₃₂₃₂	C ₃	G ₀₂₁₂	Yes
(Fu, 1993, pp. 26-34, 48) Bureaucratic (in Autocratic tradition)	W ₂₂₃₃₂₂₂	V ₁₂₃₃₃	I ₂₂	H ₁₂₂₂₂₂₁	T ₃₁₁	F ₂₁₁	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₀₂₁₂	Yes
(Fu, 1993, pp. 35-37) Daoist School	W ₃₁₃₁₁₃₃	V ₁₃₃₃₂	I ₂₃	H ₆₃₃₃₃₃₁	T ₃₃₁	F ₃₁₁	P ₁₂	L ₂₂	B ₆₃₃	D ₃₃₂₃₂₃₃	C ₃	G ₀₀₀₃	Yes
(Fu, 1993, pp. 37-38) Moist School	W ₃₃₃₁₂₃₂	V ₁₂₃₃₂	I ₂₃	H ₆₃₃₃₃₃₁	T ₃₃₁	F ₃₁₁	P ₁₂	L ₂₂	B ₆₃₁	D ₃₃₁₃₂₃₃	C ₃	G ₀₂₀₂	Yes
(Fu, 1993, p. 105) Chinese Tradition*	W ₂₂₂₁₂₂₂	V ₁₃₃₃₂	I ₂₂	H ₅₂₂₂₂₂₁	T ₃₃₁	F ₂₁₁	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₀₀₀₂	Yes
(Fu, 1993, pp. 173-176) CCP ²⁰	W ₃₃₃₃₃₃₃₃	V ₁₃₃₃₃	I ₂₃	H ₃₃₃₃₃₃₁	T ₃₃₁	F ₃₁₁	P ₁₃	L ₃₂	B ₆₃₃	D ₃₃₁₃₂₃₃	C ₃	G ₁₀₃₂	Yes

¹⁹ * Both Totalitarianism and Chinese Tradition are part of the Chinese Legalist political culture; all are considered autocratic if Fu's work.

²⁰ CCP is the Chinese Communist Party

The Introduction of New Data

The power of RST comes into play when new data that conflicts with the existing data set is introduced. I introduce the concept of leadership / authority / governance in the democratic perspective as described by Selvestone (2000), the bureaucratic perspective as described by Weber (1978b), and the cognitive perspective based on Lakoff (2008). The records are depicted in the three tables below.

Table 39 Leadership/Authority/Governance in a Democratic Perspective

Data Description	Data
Bibliographic information	(Selvestone, 2000)
Articulated theoretical perspective	Democratic
Concept	Leadership/Authority/Governance
<i>Systemic Characterizations</i>	
World View	W ₂₂₃₂₂₂₁
Values	V ₂₂₁₁₁
Interests	I ₁₂
Historic Narrative	H ₅₃₁₁₁₁₂
<i>Situational Characterizations</i>	
Trust	T ₁₁₃
Fear	F ₁₃₃
Participation	P ₁₁
Legitimacy	L ₁₁
<i>Structural characterizations</i>	
Boundaries	B ₂₁₂
Dominance	D ₁₁₁₁₁₁₁
Communication	C ₁
Geography	G ₁₁₀₀

Table 40 Leadership/Authority/Governance in a Bureaucratic Perspective

Data Description	Data
Bibliographic information	(Weber, 1978b)
Articulated theoretical perspective	Bureaucratic
Concept	Leadership/Authority/Governance
<i>Systemic Characterizations</i>	
World View	W ₂₂₂₁₂₁₂
Values	V ₁₃₃₃₂
Interests	I ₂₂
Historic Narrative	H ₁₂₂₁₁₁₁
<i>Situational Characterizations</i>	
Trust	T ₂₃₂
Fear	F ₂₁₂
Participation	P ₁₂
Legitimacy	L ₂₂
<i>Structural characterizations</i>	
Boundaries	B ₂₂₁
Dominance	D ₂₂₂₂₂₂₂₂
Communication	C ₃
Geography	G ₂₂₂₂

Table 41 Leadership/Authority/Governance in a Cognitive Perspective

Data Description	Data
Bibliographic information	(Lakoff, 2008)
Articulated theoretical perspective	Cognitive
Concept	Leadership/Authority/Governance
<i>Systemic Characterizations</i>	
World View	W ₁₁₁₄₄₄₁
Values	V ₃₁₁₁₁
Interests	I ₁₁
Historic Narrative	H ₄₁₁₁₁₁₂
<i>Situational Characterizations</i>	
Trust	T ₁₁₃
Fear	F ₁₃₃
Participation	P ₂₁
Legitimacy	L ₁₁
<i>Structural characterizations</i>	
Boundaries	B ₅₁₂
Dominance	D ₁₁₁₁₁₁₁
Communication	C ₁
Geography	G ₃₃₃₃

A cursory view shows there are significant differences between cognitive and democratic perspectives of leadership / authority / governance while there is significant overlap with the conceptualization of the concept in autocratic and bureaucratic perspectives.

Finding Patterns in the Data

I expand Table 37 to include the three records above. RST theory will allow me to identify, with respect to the concept of leadership / governance / authority, which dimensions in the autocratic perspective are also found in the described bureaucratic, democratic (or pluralistic), and cognitive perspective. The results are captured in Table 42. I highlight cells within dimensions where the rules for what counts as leadership / authority / governance in an autocratic perspective have become ambiguous. That is, there are cells in other theoretical perspectives that have the same value.

Valid and Possible Rules

From the representation in Table 42 I derived valid and possible rules for what counts as a CONCEPT (leadership / authority / governance) in an autocratic theoretical perspective. The rules are derived as described in Chapter IV and in Appendix A: Introduction to Rough Set Theory. Let “leadership / authority / governance in an autocratic perspective” be denoted by LAGAP. The certain, valid rules are:

{W₁₁₁₁₁₁₁, V₁₃₃₃₂, __, H₂₁₂₂₂₁, T₃₃₁, F₁₁₁, __, __, B₆₂₁, D₃₃₁₁₂₃₃, __, G₀₂₁₂}

→ {LAGAP, Yes}, corresponding to item 1

{W₂₂₃₁₁₁₂, V₁₂₃₃₃, I₂₁, H₅₁₂₂₂₂, T₃₃₁, F₂₁₁, __, __, B₆₂₁, D₃₃₂₂₂₂₂, C₂, G₀₂₁₂}

→ {LAGAP, Yes}, corresponding to item 2

{W₂₂₂₂₂₁₂, V₁₁₃₃₃, I₂₁, H₅₁₂₂₂₂, T₃₃₂, F₂₂₂, __, __, B₆₂₁, _____, C₂, G₁₁₃₂}

→ {LAGAP, Yes}, corresponding to item 3

{W₁₂₃₂₂₁₂, V₁₁₃₃₂, __, H₄₂₂₂₂₂, T₃₃₂, F₁₂₁, __, __, B₈₂₁, D₂₁₃₂₂₃₂, C₂, G₀₀₀₀}

→ {LAGAP, Yes}, corresponding to item 4

{W₂₂₂₁₁₁₂, V₁₁₃₃₂, I₃₁, H₆₂₁₂₃₁, T₃₃₂, __, __, __, B₈₂₁, _____, __, G₁₁₁₂}

→ {LAGAP, Yes}, corresponding to item 5

{W₂₂₂₁₁₁₂, V₁₁₃₃₂, __, H₆₂₂₂₂₂, T₃₃₁, F₁₁₁, __, __, B₈₂₂, _____, C₂, G₀₀₀₀}

→ {LAGAP, Yes}, corresponding to item 6

{W₂₂₂₂₂₁₂, V₁₂₃₃₂, __, H₅₂₂₂₂₂, T₃₃₂, F₁₁₂, __, __, B₆₂₁, _____, __, G₀₂₁₂}

→ {LAGAP, Yes}, corresponding to item 7

{W₂₂₁₁₂₂₂, V₃₂₃₃₃, I₂₃, H₄₂₂₂₂₂, T₃₃₂, F₂₂₁, __, __, B₆₂₁, _____, __, G₁₁₁₂}

→ {LAGAP, Yes}, corresponding to item 8

{W₂₂₃₂₂₂₁, V₂₂₁₁₁, I₁₂, H₅₃₁₁₁₁, T₁₁₃, F₁₃₃, P₁₁, L₁₁, B₂₁₂, D₁₁₁₁₁₁₁, C₁, G₁₁₀₀}

→ {LAGAP, No}, corresponding to item 9

{W₂₂₂₁₂₁₂, V₁₃₃₃₂, __, H₁₂₂₁₁₁, T₂₃₂, __, __, __, B₂₂₁, ____, __, G₂₂₂₂}

→ {LAGAP, No}, corresponding to item 10

{W₁₁₁₄₄₄₁, V₃₁₁₁₁, I₁₁, H₄₁₁₁₁₁, T₁₁₃, F₁₃₃, P₂₁, L₁₁, B₅₁₂, D₁₁₁₁₁₁₁, C₁, G₃₃₃₃}

→ {LAGAP, No}, corresponding to item 11

The possible rules are:

{____, ____, __, ____, __, __, P₁₂, L₂₂, ____, ____, __, ____}

→ {LAGAP, Yes}, corresponding to ambiguity in item 2 (and items 1, 3-8, 10)

{____, ____, I₂₂, ____, __, __, __, __, ____, __, ____}

→ {LAGAP, Yes}, corresponding to ambiguity in item 2 (and items 1, 6-7, 10)

{____, ____, __, ____, __, __, __, __, __, D₂₂₂₂₂₂₂, __, ____}

→ {LAGAP, Yes}, corresponding to ambiguity in item 3 (and items 5-8, 10)

{____, ____, __, ____, __, F₂₁₂, ____, __, __, ____, __, ____}

→ {LAGAP, Yes}, corresponding to ambiguity in item 5 (and item 10)

{____, ____, __, ____, __, __, __, __, __, ____, C₃, ____}

→ {LAGAP, Yes}, corresponding to ambiguity in item 1 (and items 5-8, 10)

Table 42 Leadership/Authority/Governance in Four Theoretical Perspectives

Item	Reference	Systemic Context				Situational Context				Structural Context				
		World View	Values	Interests	Historic Narrative	Trust	Fear	Participation	Legitimacy	Boundaries	Dominance	Communication	Geography	Autocratic
1	(Selvestone, 2000)	W ₁₁₁₁₁₁₁₁	V ₁₃₃₃₂	I ₂₂	H ₂₁₂₂₂₁₁	T ₃₃₁	F ₁₁₁	P ₁₂	L ₂₂	B ₆₂₁	D ₃₃₁₁₂₃₃	C ₃	G ₀₂₁₂	Yes
2	(Gurr, et al., 1990)	W ₂₂₃₁₁₁₁₂	V ₁₂₃₃₃	I ₂₁	H ₅₁₂₂₂₂₁	T ₃₃₁	F ₂₁₁	P ₁₂	L ₂₂	B ₆₂₁	D ₃₃₂₂₂₂₂	C ₂	G ₀₂₁₂	Yes
3	(Magaloni, 2008)	W ₂₂₂₂₂₁₂	V ₁₁₃₃₃	I ₂₁	H ₅₁₂₂₂₂₁	T ₃₃₂	F ₂₂₂	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₂	G ₁₁₃₂	Yes
4	(Hintz Jr., 1997)	W ₁₂₃₂₂₁₂	V ₁₁₃₃₂	I ₂₂	H ₄₂₂₂₂₂₁	T ₃₂₂	F ₁₂₁	P ₁₂	L ₂₂	B ₈₂₁	D ₂₁₃₂₂₃₂	C ₂	G ₀₀₀₀	Yes
5	(Baron, et al., 2002)	W ₂₂₂₁₁₁₂	V ₁₁₃₃₂	I ₃₁	H ₆₂₁₂₃₁₁	T ₃₃₂	F ₂₁₂	P ₁₂	L ₂₂	B ₈₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₁₁₁₂	Yes
6	(Gibson, 1995)	W ₂₂₂₁₁₁₂	V ₁₁₃₃₂	I ₂₂	H ₆₂₂₂₂₂₂	T ₃₃₁	F ₁₁₁	P ₁₂	L ₂₂	B ₈₂₂	D ₂₂₂₂₂₂₂	C ₃	G ₀₀₀₀	Yes
7	(Gibson, 1995) Benevolent Autocrat	W ₂₂₂₂₂₁₂	V ₁₂₃₃₂	I ₂₂	H ₅₂₂₂₂₂₁	T ₃₃₂	F ₁₁₂	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₀₀₀₀	Yes
8	(Jennings, 1962)	W ₂₂₁₁₂₂₂	V ₃₂₃₃₃	I ₂₃	H ₄₂₂₂₂₂₁	T ₃₃₂	F ₂₂₁	P ₁₂	L ₂₂	B ₆₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₁₁₁₂	Yes
9	(Selvestone, 2000) Democratic (Pluralist) TP	W ₂₂₃₂₂₂₁	V ₂₂₁₁₁	I ₁₂	H ₅₃₁₁₁₁₂	T ₁₁₃	F ₁₃₃	P ₁₁	L ₁₁	B ₂₁₂	D ₁₁₁₁₁₁₁	C ₁	G ₁₁₀₀	No
10	(Weber, 1978b) Bureaucratic TP	W ₂₂₂₁₂₁₂	V ₁₃₃₃₂	I ₂₂	H ₁₂₂₁₁₁₁	T ₂₃₂	F ₂₁₂	P ₁₂	L ₂₂	B ₂₂₁	D ₂₂₂₂₂₂₂	C ₃	G ₂₂₂₂	No
11	(Lakoff, 2008) Cognitive TP	W ₁₁₁₄₄₄₁	V ₃₁₁₁₁	I ₁₁	H ₄₁₁₁₁₁₂	T ₁₁₃	F ₁₃₃	P ₂₁	L ₁₁	B ₅₁₂	D ₁₁₁₁₁₁₁	C ₁	G ₃₃₃₃	No

An examination of the table reveals there is no described LAGAP that is unambiguous; each item 1-8 has at least one dimension that is also described in the bureaucratic conception of LAG. On the other hand, the pluralistic and cognitive perspectives are entirely separate from LAGAP. RST applied to the theoretical framework provides a rigorous way to simply identify these types of overlaps and distinctions. An automated process and a database of existing codes and concepts located in their theoretical perspectives could help the research quickly categorize theoretical perspectives based upon the dimensional attributes and avoid errors in inference caused by the ambiguity of descriptions found in the literature.

The overlapping dimensions between the autocratic and bureaucratic perspectives are in the areas of interest, fear, participation, dominance, and communication. Autocrats and bureaucrats both value conformity in their interests and consider differences conflicts to be resolved. Bureaucrats specialize in organized struggles over domains (Weber, 1978b). In some LAG conceptions, autocrats are primarily concerned with the protection of domains as opposed to preservation of ideology (Baron, et al., 2002). In the data set examined, both bureaucrats and autocrats see participation as a means-ends process and definitions used in the enterprise derive from dominant usages by the elites. The primacy of elites is also clear in the data. Legitimate power is maintained by elites; only elites have the power to act and establish authoritative procedures. Similarly, ideas of dominance are rooted in hierarchy, positions, control, and organizational domination. Not surprisingly, the purpose of communications is primarily to control members of the enterprise, although some autocratic conceptions of LAP view communications as a means to constrain members of the enterprise (items 2, 3 and 4).

In summary, RST offers a way to increase the identification of patterns in the data and creates an evolving framework that is self-critiquing as new data is added. This increases the strength of the validation criteria *noting patterns* in addition to the plausibility of the theoretical framework. The evolving nature of the theoretical framework using RST allows for the inclusion of analysis from other researchers as long as their concepts meet the critical-ideology criteria. This “label-less” characteristic strengthens the fairness of the research and is a novel contribution to the body of knowledge concerned with the analysis of politics in enterprise transformations.

SUMMARY OF FINDINGS

In enterprise transformations, normative concepts are challenged as are the rules, processes, and procedures that have emanated from their static conceptions. The fight against the status quo can be one of coercion and force, or it can be one of engaging debate that opens opportunities for enduring, transformational change. The theoretical framework developed supports the latter, recognizing, as Quentin Skinner (1999) argues, “We need to treat our normative concepts less as statements about the world than as tools and weapons of debate” (p. 62).

Concepts that meet the critical-ideology criteria have the characteristic of being ambiguous given the requirement of a political and historic context. Nietzsche (1969) argued, in his genealogical approach, that no single definition can encompass such words; what is needed is a “whole synthesis of meanings” (Section II.13). This synthesis is, as Wittgenstein would put it, a relation of “family resemblance” (Wittgenstein, 1972). The theoretical framework developed in this research, together with the evolutionary aspects of the framework using the tools of rough set theory, are novel contributions toward the type of inquiry highlighted by Nietzsche and Wittgenstein. As such, this research is a unique and novel contribution to the field of Engineering Management.

As a result of the literature review, synthesis, and critique, I find many issues regarding politics in enterprise transformations across multiple academic disciplines. Of significance is that there is no “grand theory” for any specific theoretical perspective; however, in a specific situation where the specific enterprise, stimulus, and actors are known, dominant descriptions of the theoretical perspectives at play can have powerful explanatory power. “Grand theories” about what counts as theoretical perspectives have been useful in multiple disciplines for the development of theories, rational actor models, etc. Subtle differences in articulating these perspectives are debated by researchers within their field. For example, in international relations the theoretical perspective *neo-realist* evolved out of the debates about the theoretical perspective *realist*. However, within enterprises, not everyone is an expert on international relations, political science, or organizational theory. To be useful to researchers, the theoretical framework will need a way to bridge the idiosyncrasies of language and categories. I propose the use of

rough-set theory and the development of valid and possible rules to guide how data from a multitude of sources is incorporated into the framework.

When the specifics of the enterprise, stimulus, and actors are absent, what is left is theory from which to construct a theoretical framework for the analysis of politics in enterprise transformation. This research is modest attempt at this goal. An instance of a paradigmatic model is developed which, together with the theory, comprises the theoretical framework. I demonstrate a high degree of validation using qualitative metrics rooted in scholarly works as well as expert peer review to increase the validation of the research. The ambiguity of the data is demonstrably addressed by the use of rough set theory earlier in this chapter. Multiple descriptions of theoretical perspectives were analyzed to produce valid and possible rules to guide theorizing about politics in enterprise transformation problems. New data enables a “critique” of the initial framework and a sharpening of the concepts that are included in the paradigmatic model that, with the theory, comprises the theoretical framework. In addition, adding new data adds triangulation to the validation, adding confidence to the usability, robustness, and validation of the framework for the scholarly audience.

LINK FINDINGS TO RESEARCH OBJECTIVES

The purpose of the research is to construct a literature based framework used for the analysis of politics in enterprise transformations, and develop the validity and reliability criteria for the inductive research. The table below links the associated research questions with the results of the study.

Table 43 Findings Relevant to Main Research Questions

Research Question	Findings
What framework can be developed for the analysis of politics in enterprise transformations?	A literature derived theoretical framework was constructed that articulated four theoretical “families” of perspectives for the dialectical analysis of concepts. The shifting states of cooperation, frustration and paradigmatic hegemony were addressed by constructing a framework that can be “tailored” as specific data about the enterprise and actors is incorporated. The theoretical framework allows for the simultaneous existence of these possible states.
How valid is the framework?	Qualitative metrics including expert peer review provide sufficient validation of the framework for further research and supported conclusions. Possible and valid rules guiding the introduction of new data were developed, strengthening the plausibility of the framework. In addition, the research adhered to the Canons of Science, strengthening the validity of the framework.

SCHOLARLY IMPLICATION OF RESULTS

This research contributes original and novel work to the field of engineering management through the use of the dialectical analysis to develop a theoretical framework derived from a broad multi-disciplinary set of literature sources. The use of rough set theory as a way to compare, contrast, and quantify valid and possible rules is novel for both the dialectical approach and the field of engineering management. It breaks the barrier of static frameworks for the analysis of politics.

I demonstrate that within the engineering management discipline, critical theory is narrowly defined in the systems literature. Critical ideology, which is based on critical theory, contributes a unique work to critical research in engineering management. Hence, this research broadens the view of critical theory as currently used in system engineering and engineering management methods such as soft systems methodology and critical systems theory. In doing so, it provides a novel contribution to the field and is one step in the direction towards a scholarly program of critical management thinking. The research also addresses a gap in holistic frameworks to analyze politics in enterprise transformations. In particular, it is a novel approach to develop autocratic, bureaucratic, pluralistic, and cognitive perspectives using a paradigmatic model and critical ideology that is validated qualitative methods. Furthermore, this research breaks significant ground in the field by creating an evolving framework (instead of a static framework) that

can be of immediate use to researchers who might want to incorporate existing research as well as new data that meets the critical-ideology criteria.

Table 44 Research Contributions

Theory (body of knowledge)	Framework will incorporate a synthesis of the political, power, influence and transformation domains. Common threads describing the nature of politics in enterprise transformation will be examined and a theory built. A framework for analysis of politics in enterprise transformation will be developed. Critical theory for analysis and synthesis is novel in the engineering discipline.
Methodology	Dialectical theory and a second level theory of critical ideology guided the methodology. The use of rough set theory in a theoretical framework is novel for the engineering discipline

This research uses a dialectical analysis of concepts located in their theoretical perspective. This methodology can be found and described in Alford and Friedland (1992), Skinner (1978a, 1978b), Mitroff and Linstone (1993), and Allison and Zelikow (1999). This literature was chosen to address the fragmentation of enterprise arrangements and continually shifting states across systemic, situational, and structural contexts in enterprises in transformations. Existing frameworks for the analysis of politics are often validated within various disciplines by their use of political and sociological theories and explanatory power. I incorporate mature theories from political science, sociology, and organizational theory as I develop the clarifying concepts over the twelve dimensions in a holistic theoretical framework. Validation of the theoretical framework is accomplished through the use of qualitative metrics found in Guba and Lincoln (2005), Huberman and Miles (2002), and Leedy (1997). The use of rough set theory adds to the confidence in the framework beyond what is necessary for the research questions posed in this study.

A weakness exists in frameworks built using this methodology – the frameworks are static works that do not account for 1) changes to concepts over time and 2) differences in the descriptions within a “family” of theoretical perspectives. The introduction of rough set theory as a way to systematically distinguish differences and establish valid and possible rules for what constitutes a “family” is novel for this

methodology. In addition, rough set theory enabled me to quantify the quality of these rule approximations.

LIMITATIONS OF STUDY

Limitations of the study are primarily due to bias in the research. The theoretical perspectives chosen reflect my own bias based on six years of experience in enterprises under transformation and with the mission of transforming the military services and NATO. Positivist methods and approaches that are more aligned with traditional scientific approaches found in economics and engineering may lead to more narrow and concrete conclusions regarding the research questions. However, my opinion that the usefulness of such research will be limited to small domains of analysis in enterprise transformation problems. In terms of the analysis of politics in enterprise transformation problems, such approaches continuously suffer from the human desire to simplify and rationalize uncertainty and complexity.

The strength of the validation of the framework can be made stronger with an expanded analysis of case studies already published with the theoretical framework developed. An expanded expert peer review where participants examine multiple texts for coding would strengthen the reliability of the framework as a tool for researchers. For the framework to be useful in a automated ideology model such as POLITICS (Carbonell, 1978), significant work would need to be done on causal relationships that is not addressed in this study.

Postmodernists might criticize the framework developed on the basis that an inter-paradigm debate is not possible (George & Campbell, 1990, p. 281; Vasquez, 2004, p. 218; Wæver, 1996, pp. 161-170). Terriff et al. (1999) agree: “Under the important notion of incommensurability, the paradigms are constructed in terms of different values and serve different political projects and, hence, have no common measure” (p. 106). Critical theorists are less anti-foundationalist than post-modernists given their focus on historicism (Terriff, et al., 1999, p. 108). As Cox (1981) writes:

Theory is always *for* someone and *for* some purpose. Perspectives derive from a position in time and space, specifically social and political time and space. The world is seen from a standpoint definable in terms of nation, or

social class, of dominance or subordination, of rising or declining power, of a sense of immobility or of present crisis, of past experience, and of hopes and expectations for the future. (p. 128)

However, neurobiology and cognitive science have demonstrated evidence that there are some hard-wired aspects behind the theoretical perspectives we hold. The ability of the framework to evolve and examine multiple descriptions of theoretical perspectives addresses the post-modernist's objection.

Treating each theoretical perspective as an ideology introduces not only a cognitive object but also claimed boundary – each perspective is a social object that is set in a theoretical region, but also the region within the ideology must be seen as an object (Gouldner, 1976, p. 4). More simply said, understanding the four perspectives as ideologies requires critical reflective thought on two levels making it impossible for the analyst to take a passive role in objective explanations of observations or empirical data (Axioms 3, 4). Gouldner (1976) writes, “To conduct a study of social objects or worlds without simultaneous reflection on some social theory is to generate a false consciousness that believes that all that it is doing is mirroring passively an out-there world, and which fails to understand how itself has participated in constructing the very object it takes to be problematic” (pp. 10-11). That is, it is important to note that this type of dialectical analysis requires the work to be understood by understanding the theoretical perspective employed by the analyst (Scott, 2003, p. 17).

The emphasis on a critical examination of perspectives as ideologies can challenge enterprise solidarity for it assumes individuals will align themselves with a point of view instead of a commitment to an organization. Clearly the spectacular failure of companies like Enron combined with global opportunities for work motivates an environment ripe for lower organizational commitment.

In another argument regarding the use of ideologies in analysis, Churchman cautions against the allure of ideology in polis with this quote from Karl Mannheim (1954):

The concept “ideology” reflects...that ruling groups can in their thinking become so intensely interest-bound to a situation that they are simply no longer able to see certain facts which would undermine their sense of domination. There is implicit in the word “ideology” the insight that in

certain situations the collective unconscious of certain groups obscures the real condition of society both to itself and to others and thereby stabilizes it. (p. 40)

Though this research amplifies political behavior because of the emphasis on ideologies, it also opens up new possibilities for behaviors and actions by using a critical approach that is sensitive to the human condition in these contexts.

Biases are introduced by the choice of methodology. The dialectical analysis assumes that rational actor models and positivist approaches are insufficient for the analysis of politics in enterprise transformations. I further assume that leaders and managers can overcome the existing paralysis when it comes to discussing politics with anyone other than political elites. My bias is towards engagement, debate, and action that leads to cooperation no doubt influenced my choice of study.

This paper develops an inductive theoretical framework and there is limited empirical data for which to draw conclusions; in many cases empirical studies focused on very narrowly defined contexts. The empirical data available to support the development of the theory was limited and often dated. For some data sets examined, significant work would need to be accomplished before they could be generalized into this theoretical framework.

FUTURE RESEARCH RECOMMENDATIONS

For researchers, this work provides some theoretical foundations for further work on politics and enterprise transformations. The recognition that there are multiple descriptions of theoretical perspectives, and the proposition of a novel solution for how to characterize the differences with valid and possible rules using rough set theory, opens up new possibilities in applications of dialectical analysis.

This research raised several questions that might be explored in future research efforts:

- What is the relationship between the stimulus motivating the enterprise transformation and the politics that may result?
- What modifications to the theoretical framework need to occur before it can be used for practical application in the area of conflict theory?

- Using the theoretical framework as an initial starting point and with further development, what is the relationship between theoretical perspectives and the capability of the enterprise in collective action?
- What modifications to the theoretical framework need to occur before it can be used for automated ideological reasoning?
- How do the theoretical perspectives compare to schools of thought?
- Using the theoretical framework as an initial starting point and with further development, what is the relationship between theoretical perspectives and the introduction of new technology into the enterprise?
- The paradigmatic model contains data from literature. Is it possible to use the theoretical framework using data from what people say?
- What modifications to the theoretical framework need to occur before it can be used as a tool for practitioners in enterprise transformations?
- Given a contested concept, is it possible to characterize the theoretical perspectives at play in NATO? Among U.S. military services? What can be said about the validation of the framework?
- How can agent based modeling be used to improve the validation of the framework?
- What applications of the theoretical framework are possible using agent based modeling?

SUMMARY

When an enterprise transforms, the result is a period of uncertainty, complexity, and rapid change that historically has meant a stronger emphasis on ideological debates (Kirkpatrick, 1982). The characteristics of this period are amplified by the current environment; we live in a world where enterprises increasingly interact with local and global political systems while existing as microcosms of political systems themselves. Political competitors external to enterprises, as well as individuals and groups within enterprises, will always seek strategic alliances within enterprise structures for mutually beneficial systemic, situational, and structural arrangements. Those who lead efforts to

transform enterprises that are sensitive to potential areas of cooperation, competition, and friction will have a significant competitive edge over leaders that seek to transform using solely normative theories and rational, positivist approaches. Senge (2006) writes, “In political climates dominated by fragmentation, polarization, and distrust, the best leaders will be those with practical experience in the power of reflective conversation and an understanding of how transformative relationships can solve complex problems” (p. 360). An approach that employs the dialectical analysis will challenge existing concepts, doctrine, language, and patterns of communication, creating unanticipated opportunities for change. This framework provides a theoretical foundation for further research and the development of practical applications towards this goal.

Developing an understanding of how different theoretical perspectives may interact within enterprise transformations provides critical insights into why each of the contending positions defines particular concepts the way they do and the basis for the difference between alternative conceptions. These insights enable 1) a rich dialectic process through which enterprise transformation problems and associated theses are developed and 2) increased awareness of what strategic alliances may emerge to shape systemic, situational, and structural aspects of the problem identified.

The theoretical framework developed promotes politics as a part of the creative process in enterprise transformations. Efforts that are purely based on rational actor models and positivist approaches lead to a transformation paradox in which transformation is discussed in terms that tend to reinforce current realities, stifling any measure of significant change from the status quo. Enterprise transformation efforts need to account for the complexity of simultaneous cooperation, frustration, and paradigmatic hegemony. That is, the efforts must account for the “possibilities of changing one’s objectives, of pursuing contradictory objectives simultaneously, of winning by appearing to lose and turning loss into an appearance of victory, and most unusual, of attaining objectives by portraying oneself as having attained them” (Stone, 2002, p. 9). What is required is a model of political reasoning supported by the dialectical analysis of concepts located in their theoretical perspectives.

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GLOSSARY

Chaos: “[A]periodic long-term behavior in a deterministic system that exhibits sensitive dependence on initial conditions” (Strogatz, 1995, p. 323).

Cognition: The way in which information is selected, stored, recalled, and used, consciously or unconsciously, for political behavior²¹ (Rosen, 2005, p. 3).

Coherence: The capacity of an enterprise for collective action (Turchin, 2003).

Complex Adaptive System: A system that “consists of a large number of agents, each of which behaves according to some set of rules. These rules require the agents to adjust their behavior to that of other agents. In other words, agents interact with, and adapt to, each other” (Stacey, 2003, p. 237).

Complexity: A phenomena whereby there exists both cooperative behavior and the irresolvable coexistence of opposing tendencies which includes the characteristics of nonlinearity, dimensionality, and connectivity (Binder, 2008).

Concepts: *Concepts*, the basic unit of thought, have an *extension* composed of objects, and an *intension* composed of attributes (properties, meanings) (Wille, 2005, p. 2).

Critical Research: Critical research approaches are important for what they reveal about politics, power and opportunities for change. Research is *critical* when it is:

- concerned with conditions of human existence which facilitates the realization of human needs and potentials;
- supports a process of critical self-reflection and associated self-transformation;

²¹ See footnote 5.

- sensitive to a broader set of institutional issues relating particularly to social justice, due process, and human freedom;
- incorporates principles of fallibility and self-correction (growth of knowledge through criticism, i.e., the principle of fallibilism);
- suggestive of how the critique of social conditions or practices could be met (as a safeguard against unrealistic and destructive negativism);
- incorporates explicit principles of evidence given (or an explicit truth theory) for the evaluation of claims made throughout the research process (H. K. Klein, 2004)

Critical Theory: An interpretive theory that is validated by the extent to which application of the theory opens up new possibilities for behaviors and actions that are themselves verified in terms of democratic inquiry (Bohman, 2005, p. 1). The nature of inquiry is one that explores “how to perceive and challenge dominant ideology, unmask power, contest hegemony, overcome alienation, pursue liberation, reclaim reason, and practice democracy” (Brookfield, 2005, p. 2). It is a robust enough theory to support an analysis of fear and ideas of honor. The theory is motivated “by the effort to abolish the opposition between the individual’s purposefulness, spontaneity, and rationality, and those work-process relationships on which society is built” (Horkheimer, 1972, p. 210). Critical theory is often used as a theoretical framework to understand internal contradictions inherent in mixed capitalistic and bureaucratized systems. In the form of critical social inquiry, there are striking similarities between critical theory and American pragmatism (Bohman, 2005, p. 3). Also, in pragmatist fashion, there is a distinctive form of rationality in Habermas’ theory of communicative action which “suggests that the theory could be developed through explicating the general and formal conditions of validity in knowing and reaching understanding through language” (Bohman, 2005, p. 3). It is this narrow view of critical theory that is primarily found in the engineering management and systems engineering discipline.

Dialectics: The art of critical examination into the truth of an opinion; the investigation of truth by discussion (Oxford, 1989). The art of resolving differences by means of regulated disposition (Eemeren & Grootendorst, 1992, p. 5).

Emergence: A characterization of phenomena that occurs when elements and groups of elements come together to “form wholes whose properties are different from the parts” (R. L. Flood & Carson, 1993, p. 18).

Enterprise: An institutional undertaking involving risk (Oxford, 1989).

Enterprise Transformation: A process that seeks to change the status quo of an existing enterprise through fundamental change that substantially alters the relationships between the enterprise with one or more key constituencies, e.g. customers, employees, mission partners, suppliers, and investors (Rouse, 2006b)²².

Formal Concept: Let (A, B) be a set of objects and a set of attributes of the object. Furthermore, let B be the maximal set of attributes common to the objects in A , and let A be the maximal set of objects that possess all the attributes in B . Then the set (A, B) is the *formal* concept (Wille, 2005).

Formal Context (Ganter & Wille, 1999, p. 17): From the definition above, concepts, the basic unit of thought, have an *extension* composed of objects and an *intension* composed of attributes (properties, meanings) (Wille, 2005, p. 2). The relationship between objects and attributes is defined as a formal context. A *formal context* $\mathbb{K} := (G, M, I)$ consists of two sets G and M and a relation I between G and M . The elements of G are called the *objects* and the elements of M are called the *attributes* of the context²³. In order to express that an object g is in a relation I with an attribute m , we write gIm or $(g, m) \in I$ and read it as “the object g *has* the attribute m .”

²² See footnote 4.

²³ Strictly speaking: “formal objects” and “formal attributes” (Ganter & Wille, 1999, p. 17).

Human Nature: The “aspects of human cognition that are shaped by human interaction with the environment” (Rosen, 2005, p. 3)

Influence: The capacity or faculty of producing effects by insensible or invisible means, without the employment of material force or the exercise of formal authority; ascendancy of a person or social group; moral power over or with a person; ascendancy, sway, control, or authority, not formally or overtly expressed (Oxford, 1989).

Indiscernibility: The main concept of Rough Set Theory is an *indiscernibility* relation which is an equivalence relation (Pawlak, et al., 1995, p. 90). The relation describes distinctions that are useful to define dispensable or redundant data in an information table comprised of objects and attributes.

Natural System Perspective: Organizations are collectivities whose participants are pursuing multiple interests, both disparate and common, but who recognize the value of perpetuating the organization as an important resource. The informal structure of relations that develop among participants is more influential in guiding the behavior of participants than is the formal structure (Scott, 2003, p. 28).

Open System Perspective: Organizations are congeries of interdependent flows and activities linking shifting coalitions of participants embedded in wider material-resource and institutional environments (Scott, 2003, p. 29).

Organization: A group of people intentionally organized to accomplish a goal or task (Oxford, 1989). Social structures created by individuals to support the collaborative pursuit of specified goals (Scott, 2003, p. 11). See also rational, natural, and open system perspectives of organizations.

Pluralism: Elinor (2006) writes, “the view that there are many of the things in question (concepts, scientific world views, discourses, viewpoints, etc.)” (p. 1). Political

pluralism is concerned with the restrictions (often government) on the freedom of people to act in reference to their value systems and starts with the observation that “there are different value systems in use in the world, and there are various positions that arise out of that observation” (Elinor, 2006, p. 1). Moral pluralism is concerned with whether the different value systems that people possess are all reducible to one universal value system or several distinct value systems (Elinor, 2006, p. 2). In terms of the critical research approach taken, Bohman (2005) offers this comparison between pluralism and critical theory in the context of the social sciences (social science being applicable to the study of politics in organizations): “A practical approach to Critical Theory responds to pluralism in the social sciences in two ways...embracing and reconciling both sides of the traditional opposition between epistemic (explanatory) and non-epistemic (interpretive) approaches to normative claims” (p. 2).

Political Culture: “A patterned set of orientations toward politics in which specific norms and general values are mutually related” (Verba, 1965, p. 550).

Politics: Politics is an activity that uses strategic alliances to create the possibility of action to reinforce or change systemic, situational, or structural arrangements (Alford & Friedland, 1992).

Positivism: An approach to inquiry that links four assumptions. First, there is an objective truth that can be discovered. Second, truth is discovered through reason and there is only one correct form of reasoning. Third, propositions derived are validated through empiricism. Finally, there is a distinction between the observer and observed (Terriff, et al., 1999, pp. 100-101).

Power: *Intentional:* The capacity of individuals, groups or systems to modify the choices that individuals and groups make (Dahl, 1957, pp. 202-203). *Unintentional:* Systemic situations that have no identifiable agent and manifest in the ways in which individuals and groups are constructed (Foucault, 1980, pp. 97-98).

Pragmatism: The view that the world is constantly changing and what is useful is what is functionally practical. While some take a position that pragmatists are only concerned with the practical results of activity, “pragmatist philosophy stresses the dynamic relationship between theory and practice and especially the value of each for transforming the other” and tends to be “pluralistic, experimental, fallibilist, and naturalistic” (Sullivan, 2007, p. 1). Pragmatists “reject the idea of a certain Truth that can be discovered through logical analysis or revelation, and are more interested in knowledge gained through experiences of all sorts, while emphasizing the social context of all epistemological claims...Because of this understanding of knowledge as shaped by multiple experiences, pluralism has been a central value in pragmatism” (Whipps, 2004, p. 1).

Quality of Lower Approximation: “For a given set X of examples, not necessarily definable by a set P of attributes, the quality of lower approximation is the ratio of the number of all elements in the lower approximation of X to the total number of examples. The quality of lower approximation may be interpreted as the ratio of the number of all certain classified examples by attributes from P as being in X to the number of all examples of the information table. It is a kind of relative frequency” (Pawlak, et al., 1995, p. 92).

Quality of Upper Approximation: “Similarly, the quality of upper approximation is the ratio of the number of all elements in the upper approximation of X to the total number of examples. The quality of upper approximation is the ratio of the number of all possibly classified examples by attributes from P as being in X to the number of all examples of the system. Therefore, it is again a kind of relative frequency” (Pawlak, et al., 1995, p. 92).

Rational System Perspective: Organizations are collectivities oriented to the pursuit of relatively specific goals and exhibiting relatively highly formalized social structures (Scott, 2003, p. 27).

Rationalism: The view that “there are significant ways in which our concepts and knowledge are gained independently of sense experience” (Markie, 2004, p. 1). The rationalist position is often contrasted with the empiricist position, a view that claims “sense experience is the ultimate source of all our concepts and knowledge” (Markie, 2004, p. 1). A rationalist position requires at least one of the following: “(1) a privileging of reason and intuition over sensation and experience, (2) regarding all or most ideas as innate rather than adventitious, (3) an emphasis on certain rather than merely probable knowledge as the goal of enquiry” (Lennon & Dea, 2007, p. 1). Underlying the rationalist position is a metaphysical commitment to “substance as an underlying principle of unity” (Lennon & Dea, 2007, p. 1).

Rhetoric: The art of using language so as to persuade or influence others; the body of rules to be observed by a speaker or writer in order that he may express himself or herself with eloquence (Oxford, 1989). The art of influencing an audience by effective speech (Eemeren & Grootendorst, 1992, p. 5).

Rough Sets: *Rough sets* are concepts that are undefinable by given attributes (Pawlak, et al., 1995, p. 91). Rough set theory offers a way to deal with these inconsistencies. The idea is simple: “for each concept X the greatest definable set contained in X and the least definable set containing X are computed. The former set is called a lower approximation of X; the latter is called an upper approximation of X” (Pawlak, et al., 1995, p. 91).

Systemic Context: The environmental and biological circumstances that shape world views, values, ideas of honor, interests, and historic narratives. *Systemic power* can be normalizing through institutional agendas; without locus and sensed through frustration and interpersonal conflict; or coercive, hegemonic, and exploitative of social relations (Alford & Friedland, 1992, p. 412).

Situational Context: The environmental circumstances that shape ideas of trust, fear, participation, and legitimacy. *Situational power* is relational power between agents and /

or groups within or outside the enterprise in this context (Alford & Friedland, 1992, p. 412).

Structural Context: The environmental circumstances that shape boundaries, dominance relations, communication designs, geo-strategies, and geo-politics. *Structural power* determines roles of dominance and conditions for emergence within this context (Alford & Friedland, 1992, p. 412).

Symbolic Technology: The undertaking of manufacturing and crafting external symbolic artifacts and devices. Symbolic technologies include everything from circuit diagrams, books, museums, paintings, computers, maps, and musical and mathematical notations that together represent an external symbolic storage system for public group memory (Donald, 2002, pp. 304-305). While archeologists might classify symbolic technologies as part of our material culture, they are unique in their design to “help us think, remember, and represent reality” (Donald, 2002, p. 305).

Synergy: “The sum total of the energy which a group can command. That part of the energy which is used up to keep the group in being is maintenance synergy and that part which is used to carry out the objectives of the group is effective synergy” (Katz & Kahn, 1966, p. 33).

Uncertainty: The “inability to determine the true state of affairs of a system” whereby there is no reasonable probability that can be assigned to potential outcomes (Haimes, 1998, p. 228).

Valid Rules: For any concept, *valid* rules are those that use the lower approximation (as defined in rough set theory) and these rules are considered certain (Pawlak, et al., 1995, p. 91). Rules that use the upper bound are possibly valid.

APPENDIX A: INTRODUCTION TO ROUGH SET THEORY

This appendix begins with a discussion of Formal Concept Analysis which lays the foundation for a discussion of rough sets and a related topic used in this research, similarity measures. Let (A, B) be a set of objects and a set of attributes of the object. Furthermore, let B be the maximal set of attributes common to the objects in A , and let A be the maximal set of objects that possess all the attributes in B . Then the set (A, B) is the *formal concept* (Wille, 2005). Not every pair of sets is a formal concept and in some sets of data there may only be a single set of features or objects requiring a “best approximation” concept for the features and objects, e.g., a physician diagnosing a disease or an information query (Saquer & Deogun, 2001, pp. 655-656). Rough set theory was introduced by Zdzislaw Pawlak in the early 1980’s in part to deal with the many real-life problems, like the previous examples, that cannot be described by formal concepts (Pawlak, et al., 1995, p. 89). The mathematical tools described here are useful to the purpose of the research. In particular, rough set theory is used to analyze and validate the four theoretical perspectives and perspective mapping. Figure 26 below illustrates how this section relates to the purpose of the research and literature review.

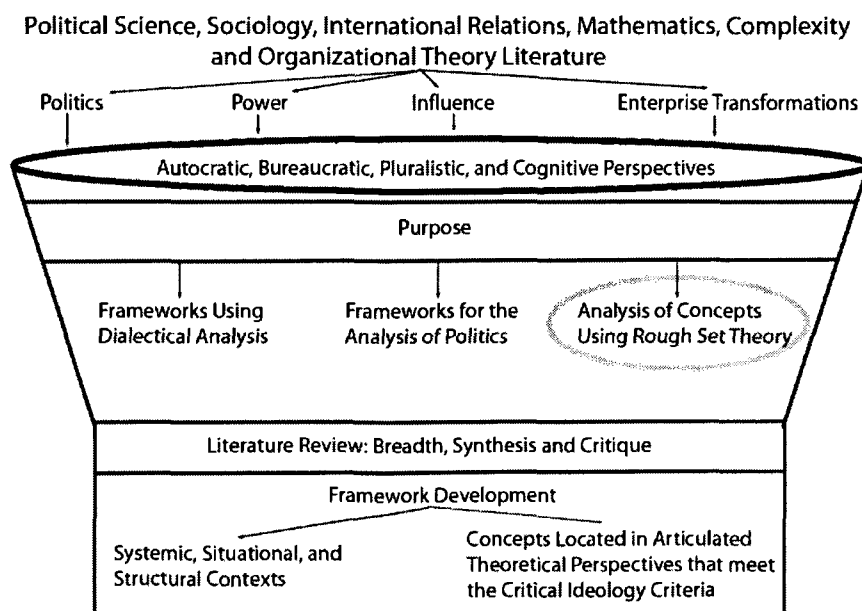


Figure 26 Analysis of Concepts Using RST (Introduction)

Defining the Concepts for a given Context

Formal Concept Analysis (FCA) originated from work in mathematical order and lattice theory and is concerned with concept hierarchies and the mathematization of concepts (Wille, 2005, p. 1). Willie (2005) writes:

The aim and meaning of Formal Concept Analysis as mathematical theory of concepts and concept hierarchies is to support the rational communication of humans by mathematically developing appropriate conceptual structures which can be logically activated. (p. 2)

In this view, concepts, the basic unit of thought, have an *extension* composed of objects, and an *intension* composed of attributes (properties, meanings) (Wille, 2005, p. 2). The relationship between objects and attributes is defined as a formal context.

Definition (Ganter & Wille, 1999, p. 17): A **formal context** $K := (G, M, I)$ consists of two sets G and M and a relation I between G and M . The elements of G are called the **objects** and the elements of M are called the **attributes** of the context²⁴. In order to express that an object g is in a relation I with an attribute m , we write gIm or $(g, m) \in I$ and read it as “the object g has the attribute m .”

An example is provided below in Table 45 where the object in row i possesses the feature in column j (gIm) if there is an “X” in the i -th row and j -th column. Let the set of all attributes common to a set of objects A be denoted by $\beta(A) = \{m \in M \mid gIm \forall g \in A\}$ and similarly the set of objects possessing all attributes in a set $B \subseteq M$ as $\alpha(B) = \{g \in G \mid gIm \forall m \in B\}$. The following lemma applies:

Lemma 1 (Wille, 1982): Let (G, M, I) be a context. Then the following assertions hold:

1. $A_1 \subseteq A_2$ implies $\beta(A_1) \supseteq \beta(A_2)$ for every $A_1, A_2 \subseteq G$, and $B_1 \subseteq B_2$ implies $\alpha(B_1) \supseteq \alpha(B_2)$ for every $B, B_2 \subseteq M$.

²⁴ Strictly speaking: “formal objects” and “formal attributes” (Ganter & Wille, 1999, p. 17).

2. $A \subseteq \alpha(\beta(A))$ and $\beta(A) = \beta(\alpha(\beta(A)))$ for all $A \subseteq G$, and $B \subseteq \beta(\alpha(B))$ and $\alpha(B) = \alpha(\beta(\alpha(B)))$ for all $B \subseteq M$.

Table 45 Context of a few Beers

	Belgian	Lager	India Pale Ale	Dopplebock	Stout
Hoegaarden	X				
Ayinger Celebrator		X		X	
Guinness					X
Dogfish Head 90 Minute IPA			X		
Chimay	X				
Schneider Weisse	X				

In Table 45 objects are the beers and the attributes are the styles of beer where, according to the late Michael Jackson, also known as “The Beer Hunter”:

Belgian: This [Belgian wheat] is a hazy beer, made from equal parts raw wheat and malted barley, and spiced with coriander seeds and Curaçao orange peel. Easy-drinking and refreshing, its citrusy fruitiness is balanced by a restrained fruity dryness (M. C. Jackson, 2007, p. 42). This [Trappist] order of monks has five breweries in Belgium and one in the Netherlands. By law, only they are entitled to use the term Trappist in describing their products.

Lager: Any beer made by bottom-fermentation. In Britain, lagers are usually golden in colour, but in continental Europe they can also be dark. In the German-speaking world and The Netherlands, the term may be used to indicate the most basic beer of the house, the *biere ordinaire* (M. C. Jackson, 2000).

India Pale Ale: British pale ales for the Indian Empire were made to a higher than normal strength, and given more hops, to protect them on the journey. Today, the hoppiest examples of this style are made by the new generation of American brewers (M. C. Jackson, 2000).

Stout: An extra-dark, almost black, top-fermenting brew, made with highly roasted malts. Sweet stout, an English style, is typified by Mackeson, which has only about 3.75 percent alcohol by volume in its domestic market but more than 5 in the Americas. Sweet stout usually contains milk sugars (lactose), and is a soothing restorative. Dry stout, the Irish style, is typified by Guinness, which come in around 4 percent in the British Isles, a little more in North America and as much as 8 in tropical countries. Dry stouts sometimes contain roasted unmalted barley. Imperial Stout, originally brewed as a winter warmer, for sale in the

Tsarist Russian Empire, is medium dry and distinguished by its great strength: anything from 7 to more than 10 (M. C. Jackson, 2000).

Dopplebock: “Bock” simply indicates a strong or extra-potent lager beer. ...Traditionally, bock beers are malty, full-bodied, and smoothly warming. In the past they were invariably deep copper to garnet in color. Their typical strength is 6.5% ABV...Extra-strong bocks are called dopplebocks (“double-bocks”), and beer names ending in “-ator” typically indicate a rich, dark, malty lager of this style (M. C. Jackson, 2007, pp. 54-55).

In this example, (A, B) are a set of objects (beer names) and a set of attributes (beer styles) of the objects. B is the maximal set of beer styles common to the beer names in A , and A is the maximal set of beers that possess all the styles in B . Then the set (A, B) is the *formal concept*.

Table 46 Object Intent Table

Object (Beer Name)	Attributes (Beer Styles)
Hoegaarden	Belgian
Ayinger Celebrator	Lager, Dopplebock
Guinness	Stout
Dogfish Head 90 Minute IPA	India Pale Ale
Chimay	Belgian
Schneider Weisse	Belgian

Table 47 Attribute Extent Table

Attribute (Beer Style)	Object (Beer Name)
Belgian	Hoegaarden, Chimay, Schneider Weisse
Lager	Ayinger Celebrator
India Pale Ale	Dogfish Head 90 Minute IPA
Dopplebock	Ayinger Celebrator
Stout	Guinness

There is a duality of relationships between objects and attributes in the sense logical rules are applied to object-intent to reduce the data set and develop concepts can also be applied to attribute-extent. I will focus on attribute-extent table (Table 47) to develop the resulting concepts from the context of beers in Table 45.

Proposition 1 (Ganter & Wille, 1999, pp. 63-64): Each concept of a context (G, M, I) has the form (X'', X') for some subset $X \subseteq G$ and the form (Y', Y'') for some subset $Y \subseteq M$. Conversely, all such pairs are

concepts. Every extent is the intersection of attribute extents and every intent is the intersection of object intents.

The derivation of the concepts for the context is accomplished in two steps. First, the extent G (extent of beer names) is identified. This was accomplished in Table 47 and copied to Table X. Next, for each attribute $m \in M$ (each attribute = beer style), form the set $A \cap m'$ and include it in the table, provided that it is not already in the table. The result is displayed in Table 48.

Table 48 Concepts for the Context of a few Beers

Attribute (Beer Style)	Extent + 2 nd Step
Belgian	{Hoegaarden, Chimay, Schneider Weisse}
Lager	{Ayinger Celebrator} \emptyset
India Pale Ale	{Dogfish Head 90 Minute IPA}
Dopplebock	{Ayinger Celebrator} (redundant with Lager entry)
Stout	{Guinness}

For this set of data (context of a few beers), the attributes of “Lager” and “Dopplebock” are redundant or indiscernable. If there were more Lagers that were not Dopplebocks this distinction would be important to the analysis on the data. The main concept of Rough Set Theory is an *indiscernibility* relation which is an equivalence relation (Pawlak, et al., 1995, p. 90). As demonstrated, these distinctions are useful to define dispensable or redundant data in the information table. Removing the redundant concept, we have a total of six concepts: $\{(\emptyset), \{Hoegaarden, Chimay, Schneider Weisse\}, \{Ayinger Celebrator\}, \{Dogfish Head 90 Minute IPA\}, \{Guinness\}\}$.

Rough Sets Used For Validity

The intuitive example above showed how to derive concepts from a given context. As mentioned before, the context given may not be consistent or precise enough to use formal concepts. The next example shows how rough set theory can deal with inconsistent data.

A decision has been included in Table 49. Pawlak et al. (1995) write, “By analogy with attributes, we can define elementary sets associated with the decision as subsets of the set of all examples with the same value of the decision. Such subsets will be called concepts” (p. 90). In this case, the concepts are $\{e1, e4, e5, e8\}$ and $\{e2, e3, e6, e7\}$. The question of concern here is whether we can tell whether a beer is Belgian or not based on the given attributes. Table 49 is inconsistent because in both e5 and e7, the attributes are the same (not pale color and barley), yet the decision value is different. Similarly, e6 and e8 are conflicting. Rough set theory offers a way to deal with these inconsistencies. The idea is simple: “for each concept X the greatest definable set contained in X and the least definable set containing X are computed. The former set is called a lower approximation of X; the latter is called an upper approximation of X” (Pawlak, et al., 1995, p. 91). *Rough sets* are concepts that are undefinable by given attributes (Pawlak, et al., 1995, p. 91).

Table 49 Inconsistent Information Table

	Attributes		Decision
	Pale Color	Ingredient	Belgian
e1	Yes	Milk	No
e2	Yes	Wheat	Yes
e3	Yes	Barley	Yes
e4	No	Milk	No
e5	No	Wheat	No
e6	No	Barley	Yes
e7	No	Wheat	Yes
e8	No	Barley	No

In Table 49, for the concept describing beers that are Belgian, $\{e2, e3, e6, e7\}$, the lower approximation is equal to the set $\{e2, e3\}$ and represents the elementary set, associated with the concept, that does not contain inconsistent data. The upper approximation is equal to the set $\{e2, e3, e5, e6, e7, e8\}$ and represents attributes that may indicate the beer is or is not Belgium. For any concept, *valid* rules are those that use the lower approximation and these rules are considered certain (Pawlak, et al., 1995, p. 91). Rules that use the upper bound are possibly valid. For Table 49 the certain rules are:

$(\text{Ingredient, Milk}) \rightarrow (\text{Belgian, No})$

(Pale Color, Yes) and (Ingredient, Wheat) → (Belgian, Yes)

(Pale Color, Yes) and (Ingredient, Barley) → (Belgian, Yes)

The possible rules are:

(Pale Color, No) → (Belgian, No)

(Ingredient, Milk) → (Belgian, No)

(Ingredient, Wheat) → (Belgian, Yes)

(Ingredient, Barley) → (Belgian, Yes)

The upper and lower approximations are depicted in Figure 27. The *boundary region* of the concept X is comprised of those attributes that are not members of the lower approximation, {e5, e6, e7, e8}.

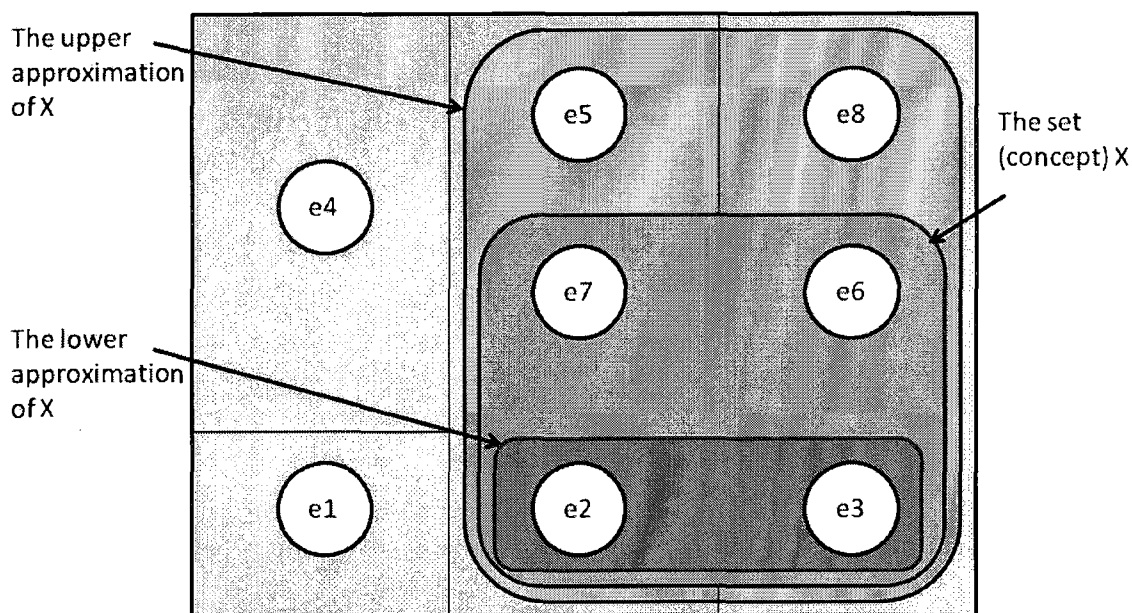


Figure 27 Lower and Upper Approximations of the Set X (adapted from Pawlak, et al., 1995)

In rough set theory, the most frequently used measures of uncertainty are the quality of the lower and upper approximations (Pawlak, et al., 1995, p. 92). The following definitions are taken from Pawlak et al. (1995):

Quality of Lower Approximation: For a given set X of examples, not necessarily definable by a set P of attributes, the quality of lower approximation is the ratio of the number of all elements in the lower approximation of X to the total number of examples. The quality of lower approximation may be interpreted as the ratio of the number of all certain classified examples by attributes from P as being in X to the number of all examples of the information table. It is a kind of relative frequency.

Quality of Upper Approximation: Similarly, the quality of upper approximation is the ratio of the number of all elements in the upper approximation of X to the total number of examples. The quality of upper approximation is the ratio of the number of all possibly classified examples by attributes from P as being in X to the number of all examples of the system. Therefore, it is again a kind of relative frequency. (p. 92)

For the concept $X = \{e1, e4, e5, e8\}$ from Table 49 there are two out of eight elements in the lower approximation, hence the quality of lower approximation is 0.25. There are six out of eight elements in the upper approximation, thus the quality of upper approximation is 0.75.

This aspect of rough set theory will be useful in constructing and validating the four theoretical perspectives and the perspective mapping. A second aspect of rough set theory is useful for the dialectical analysis of concepts and is discussed in the following section.

Rough Sets and Conflict

In his paper, *An Inquiry into Anatomy of Conflicts* (1998), Zdzislaw Pawlak examined a novel approach to conflict analysis using rough set theory. This approach is useful to the research for the purpose of examining the areas of potential conflict between theoretical perspectives. In his example, Pawlak (1998) considered an information table with six agents and five issues whose position on issues is described as against (-1), favorable (1) and neutral (0). The agents (1-6) and five issues (a-e) are:

1. Israel
2. Egypt
3. Palestinians

4. Jordan
5. Syria
6. Saudia Arabia
- a* Autonomous Palestinian state on the West Bank and Gaza
- b* Israeli military outpost along the Jordan River
- c* Israeli retains East Jerusalem
- d* Israeli military outposts on the Golan Heights
- e* Arab countries that grant citizenship to Palestinians who choose to remain within their borders

Pawlak (1998) writes, “The example does not necessarily reflect present-day situation in this region but is used here only as an illustration of the basic ideas considered in this paper” (p. 68). The resulting information system is depicted in Table 50. It contains explicit information about the attitude of an agent on each issue and the analysis is performed to derive implicit information in support of the conflict analysis (Pawlak, 1998, p. 68).

Table 50 Information Table for the Middle East (based on Pawlak, 1998)

U	a	b	c	d	e
1	-	+	+	+	+
2	+	0	-	-	-
3	+	-	-	-	0
4	0	-	-	0	-
5	+	-	-	-	-
6	0	+	-	0	+

We want to partition a non-empty universe (U) of objects, in this case agents, into disjoint equivalence classes according to an equivalence relation. Let A be the set of attributes (issues) and the values of A is $V_a = \{-1, 0, 1\}$ = the domain of $a \in A$. The set V_a contains elements that are opinions where $a(x)$ is opinion of agent x about issue a . Note a: $U \rightarrow V_a$ is a total function for every $a \in A$ (Pawlak, 1998, p. 68). Pawlak defines a basic binary relation on U to formally describe conflict, neutrality, and alliance. He begins with an auxiliary function (Pawlak, 1998, p. 68).

$$\varphi_a(x, y) = \begin{cases} 1 & \text{if } a(x)a(y) = 1 \text{ or } x = y \\ 0 & \text{if } a(x)a(y) = 0 \text{ and } x \neq y \\ -1 & \text{if } a(x)a(y) = -1 \end{cases}$$

Hence x and y are allied on issue a if they have the same opinion and $\varphi_a(x, y) = 1$. Agents x and y are in conflict if they have different opinions about a and $\varphi_a = -1$ and if at least one agent is neutral then $\varphi_a(x, y) = 0$. Pawlak defines three basic relations and demonstrates the properties of alliance, conflict, and neutrality relations (Pawlak, 1998, pp. 68-69).

$$R_a^+(x, y) \text{ iff } \varphi_a(x, y) = 1$$

$$R_a^0(x, y) \text{ iff } \varphi_a(x, y) = 0$$

$$R_a^-(x, y) \text{ iff } \varphi_a(x, y) = -1$$

The alliance relation R_a^+ , is an equivalence relation for every a and has the following properties:

$$(i) R_a^+(x, x)$$

$$(ii) R_a^+(x, y) \text{ implies } R_a^+(y, x)$$

$$(iii) R_a^+(x, y) \text{ and } R_a^+(y, z) \text{ implies } R_a^+(x, z)$$

Pawlak notes that another way to state condition (iii) is “A friend of my friend is my friend” (Pawlak, 1998, p. 69). He defines each equivalence class of the alliance relation as a coalition on a . There are no coalitions in either conflict or neutrality relations.

The conflict relation R_a^- , has the following properties: Pawlak states that conditions (vi) and (vii) correspond to the sayings “enemy of my enemy is my friend” and “friend of my enemy is my enemy,” respectively (Pawlak, 1998, p. 69).

$$(iv) \text{ non } R_a^-(x, x)$$

$$(v) R_a^-(x, y) \text{ implies } R_a^-(y, x)$$

$$(vi) R_a^-(x, y) \text{ and } R_a^-(y, z) \text{ implies } R_a^+(x, z)$$

$$(vii) R_a^-(x, y) \text{ and } R_a^+(y, z) \text{ implies } R_a^-(x, z)$$

The neutrality relation, R_a^0 , has the properties:

$$(viii) \text{ non } R_a^0(x, x)$$

$$(ix) R_a^0(x, y) = R_a^0(y, x) \text{ (symmetry)}$$

Pawlak writes, “The following proper holds $R_a^+ \cup R_a^0 \cup R_a^- = U^2$ because if $(x, y) \in U^2$ then $\varphi_a(x, y) = 1$ or $\varphi_a(x, y) = 0$ or $\varphi_a(x, y) = -1$ so $(x, y) \in R_a^+$ or $(x, y) \in R_a^0$ or $(x, y) \in R_a^-$. All three relations R_a^+ , R_a^0 and R_a^- are pairwise disjoint, i.e., every pair of objects (x, y) belonged to exactly one of the above defined relations (is in conflict, is allied or neutral)” (Pawlak, 1998). His graph depicting the Middle East conflict is represented in Figure 28. Here the conflicts are indicated by solid lines. Dotted lines represent alliance relationships and neural relationships are not explicitly shown. For the issue a (autonomous Palestinian state on the West Bank and Gaza), Israel and Egypt, Israel, and Palestine, and Israel and Syria are in conflict, while Israel and Jordan are neutral. Egypt, Palestine, and Syria are allied on this issue.

A simplified graph is depicted in Figure Z and is developed based on the following proposition (Pawlak, 1998, p. 70):

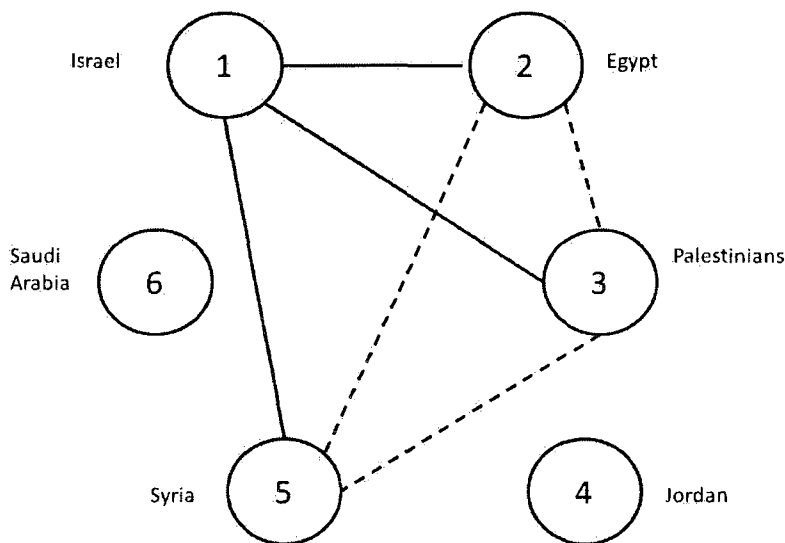


Figure 28 Graph of the Middle East Conflict (Pawlak, 1998)

These three relationships: alliance, neutral and conflict, can be quantified which is useful for the dialectical analysis. Given the paradigmatic model developed in this research, the practitioner can analyze systemic, situational, and structural views by

stakeholders based on their theoretical perspective profile. While there is some degree of inherent subjectivity in profiling the stakeholders, the framework allows for a richer, more holistic analysis than currently available in the literature. This research develops the theoretical framework for how such an analysis will proceed, but does not develop the practical application. The results of this section of the literature review are generalized in Chapter V for this purpose. The following paragraphs discuss how relationships, dissimilarities, and the degree of conflict between agents can be quantified.

Dissimilarities between Agents

Pawlak uses the concept of a discernibility matrix to study the differences between agents (Pawlak, 1998). For $S = (U, A)$, a discernibility matrix of $B \subseteq A$ in S is a $n \times n$ matrix, where $n = |U|$, is defined

$$\delta_B(x, y) = \{a \in B : a(x) \neq a(y)\}.$$

The discernibility matrix is denoted $M_S(B)$ or $M(B)$ that assigns to each pair of objects x and y a subset of attributes $\delta(x, y) \subseteq B$ that represents a *qualitative* distance:

- (i) $\delta(x, x) = \emptyset$
- (ii) $\delta(x, y) = \delta(y, x)$
- (iii) $\delta(x, z) \subseteq \delta(x, y) \cup \delta(y, z)$

where (iii) is derived from the proof that if $a \notin \delta(x, y) \cup \delta(y, z)$ then $a(x) = a(z)$ and $a(z) = a(y)$ hence $a(x) = a(y)$ and thus $a \notin \delta(x, y)$ (Pawlak, 1998, p. 71). Table 51 depicts the discernibility matrix for the conflict represented in Table 50.

Table 51 Discernibility Matrix for the Middle East Conflict (based on Pawlak, 1998)

	1	2	3	4	5	6
1						
2	a,b,c,d,e					
3	a,b,c,d,e	b,e				
4	a,b,c,d,e	a,b,d	a,d,e			
5	a,b,c,d,e	b	e	a,d		
6	a,c,d	a,b,e,d	a,b,d,e	b,e	a,b,d,e	

Degree of Conflict

The differences between the perspectives of agents on issues can be represented by a distance function which will be useful to incorporate into the theoretical framework developed in this research. Let the description of the perspectives on an issue be the relations R_a^+ , R_a^0 and R_a^- . To derive the distance function, let $B \subseteq A$ be a set of issues $\{a_1, a_2, a_3, \dots\}$. The *conflict function* that evaluates the perspectives of x and y with respect to these issues is (Pawlak, 1998, p. 71):

$$\rho_B(x, y) = \frac{|\delta_B(x, y)|}{|B|}$$

In this case, x and y are in a coalition if $\rho_B(x, y) = 0$ and they are in conflict over B in a degree $\rho_B(x, y)$ otherwise. If we assume that the distance between agents in conflict is greater than the distance between neutral agents, we can define a more precise distance function (Pawlak, 1998, p. 72).

$$\rho_B^*(x, y) = \frac{\sum_{a \in B} \varphi_a^*(x, y)}{|B|}$$

where

$$\varphi_a^*(x, y) = \frac{1 - \varphi_a(x, y)}{2} = \begin{cases} 0 & \text{if } a(x)a(y) = 1 \text{ or } x = y \\ 0.5 & \text{if } a(x)a(y) = 0 \\ 1 & \text{if } a(x)a(y) = -1 \text{ and } x \neq y \end{cases}$$

The resulting distance function is represented in Table 52 below.

Table 52 Distance Function for the Middle East Conflict (based on Pawlak, 1998)

	1	2	3	4	5	6
1						
2	0.9					
3	0.9	0.2				
4	0.8	0.3	0.3			
5	1.0	0.1	0.1	0.2		
6	0.4	0.5	0.5	0.4	0.6	

The results of this appendix were generalized in Chapter IV. This review demonstrates how the tools of rough set theory can be applied to ambiguous and imprecise data.

APPENDIX B: PEER REVIEW PROCEDURES

The purpose of the peer review is to increase the validity of the framework by demonstrating that several researchers with similar backgrounds validate the chain of evidence through the process of deriving conclusions (Gall, et al., 1996, p. 572). To accomplish this it was necessary to “provide an ‘audit’ trail of the key decisions made during the research process and validate that they were good decisions” (Creswell, 1994, p. 158). Validation is acceptance by the group that the approach is intellectually and methodologically sound.

I used three students enrolled in the Old Dominion University International Relations graduate program.

The following process was used to conduct the peer review.

1. Reviewers were provided an overview of the research goals, methodology, literature review schema, and five focus areas.
2. In conducting the peer review, the reviewers addressed the following:
 - a. Data collection
 - i. Was the breadth of the literature review sufficient to construct the theoretical framework?
 - ii. Was the breadth of the literature review sufficient to address the five focus areas?
 - iii. Is the methodology chosen sufficient to reduce the literature to primary sources relevant to the five focus areas and construction of the framework?
 - b. Theory construction
 - i. Was there sufficient theory and/or empirical evidence within the literature to support the theory supporting the development of the framework?
 - ii. Is the chain of evidence (or audit trail) developed sufficient such that other researchers with similar backgrounds could reproduce results?
 - c. Framework development

- i. Does the framework adequately fulfill the research objective of being a theoretical framework for the analysis of politics in enterprise transformations?
3. The reviewers were provided the coded list of clarifying concepts and asked to code the chapter from Jennings (1962). The reviewers addressed the following:
 - a. Do researchers with similar backgrounds code in similar ways?
 - b. Is the coding scheme sufficient to provide reliable coding results from researchers with similar backgrounds?

Results

For each step of the research design, the graduate student experts validated that the increments were sound, but also complex. Practical examples were necessary to clarify during the process. The experts continued to focus on practical applications of the framework throughout the process and stressed that the research was theoretical, not practical. The experts suggested that, in their view, the framework represents a meta-theory of politics.

The experts felt as though the breadth of the research was impressive and discussion ensued on cross-discipline issues. There was agreement that both the methodology chosen and five focus areas were adequate to reduce the literature to primary sources and construct the framework. The number of dimensions within the framework and the theoretical basis for the clarifying concepts seemed to overwhelm the experts. But when the theoretical framework was presented, the experts expressed that the processes made sense and suggested ways that “the story” could be told to prepare the audience for what will be a build up to complexity and then reduction. They also suggested other areas of future research that I captured in Chapter VII.

All experts felt that the traceability and documentation was sufficient for them to reproduce the research. Some concern was expressed that despite being experts in politics, they would have to study the usage of some terms and theories in the organizational theory literature in order to faithfully reproduce results. All experts felt

that the theoretical framework answered the primary research question. Similarities to other frameworks were discussed.

I provided all three experts the section on autocratic leadership by Jennings (1962) and a coding sheet (Table 68 in Appendix D: Coding the Clarifying Concepts). Due to time constraints, I provided a limited introduction to theory behind the clarifying concepts in Table 68. The following steps were discussed with the experts as ways to improve the external validation process and increase the reliability of the coding:

- Provide an introduction, with examples, on all the clarifying concepts. The experts commented that they are experts in politics, but lack the expertise in organizational theory to fully understand the terms used in the coding sheet.
- Develop an online questionnaire that provides an explanation of the clarifying concept and several examples for the participant to code and analyze the result.

In summary, the external validation by experts was strong in the areas of research development, design, and qualitative metrics. It was, however, weaker in the replication of coding results. I described ways in which the validation may be improved in future research efforts.

APPENDIX C: THEORETICAL FRAMEWORK CONSTRUCTION

The framework construction consists of two steps. First, the twelve dimensions within the systemic, situational, and structural contexts are articulated. Distinguishing criteria which allow a researcher to distinguish one theoretical perspective (or flavor of theoretical perspective) from another is accomplished through the use of *clarifying concepts* for each dimension. Clarifying concepts are assigned codes for consistency in the coding process and repeatability by researchers with similar backgrounds. The result is a foundation for the theoretical framework. From this foundation, paradigmatic models can be developed based upon a researcher's specific vocabulary as long as concepts meet the critical ideology requirement. Recall the critical ideology requirement ensures the data addresses most of the dimensions in the framework.

For this research, I chose autocratic, bureaucratic, pluralistic, and cognitive perspectives for their applicability to enterprise transformations. It is a broad selection of theoretical perspectives that covers polarized views as well as new research in cognitive science that may shape the way we look at enterprise transformations in the future. From the primary sources identified in the literature review, I extract the relevant concepts, located in the theoretical perspectives chosen, and include them in the paradigmatic model. The result is an instance of the paradigmatic model applicable to the study of politics in enterprise transformations.

In this appendix, I elaborate on the dimensions within systemic, situational, and structural contexts based on the results of the literature review in Chapter II. Figure 29 illustrates how the systemic, situational, and structural contexts are related to the literature review and purpose of the research.

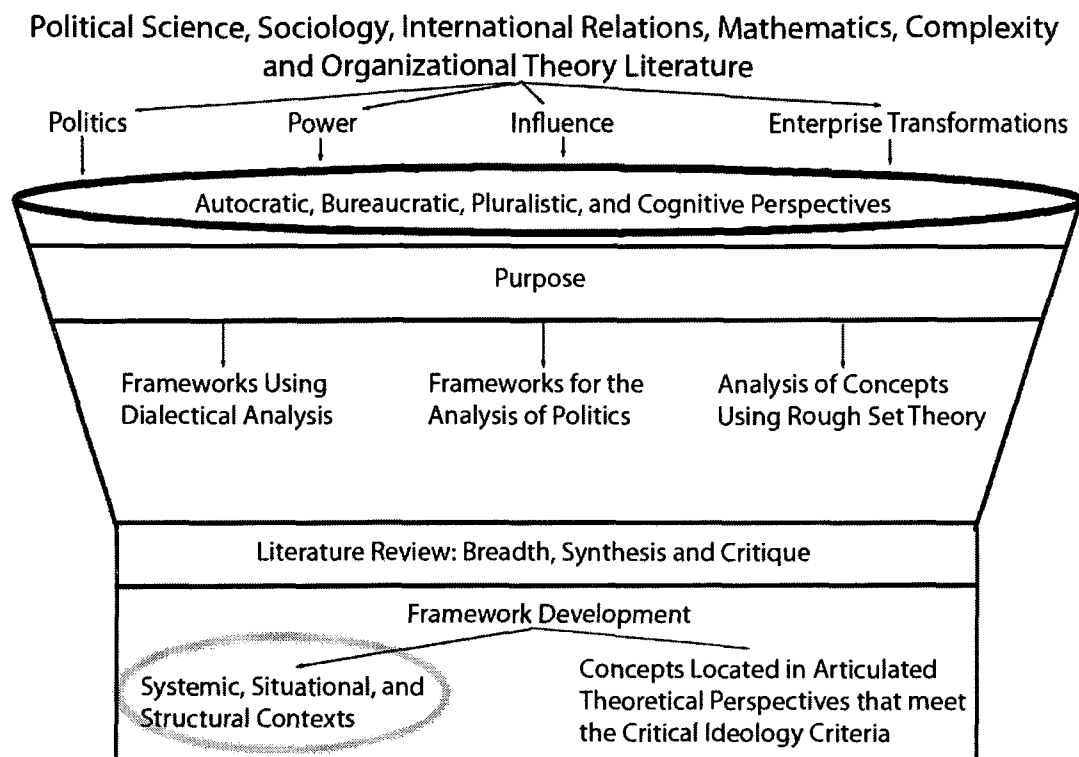


Figure 29 Systemic, Situational, and Structural Contexts

The clarifying concepts described in this section are used to differentiate perspectives within a single dimension. For example, “human nature” is a clarifying concept for it can help distinguish world views that assume human nature is constant from those that assume human nature is changeable. Clarifying concepts are not required to meet the critical-ideology criteria. The relationship between clarifying concepts and concepts that meet the critical-ideology criteria is illustrated in Figure 30 and Figure 31 below.

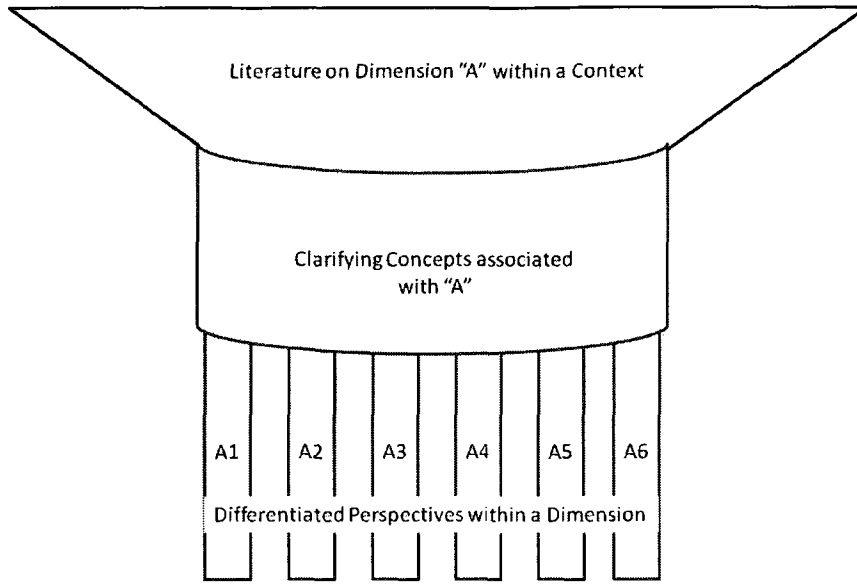


Figure 30 Clarifying Concepts

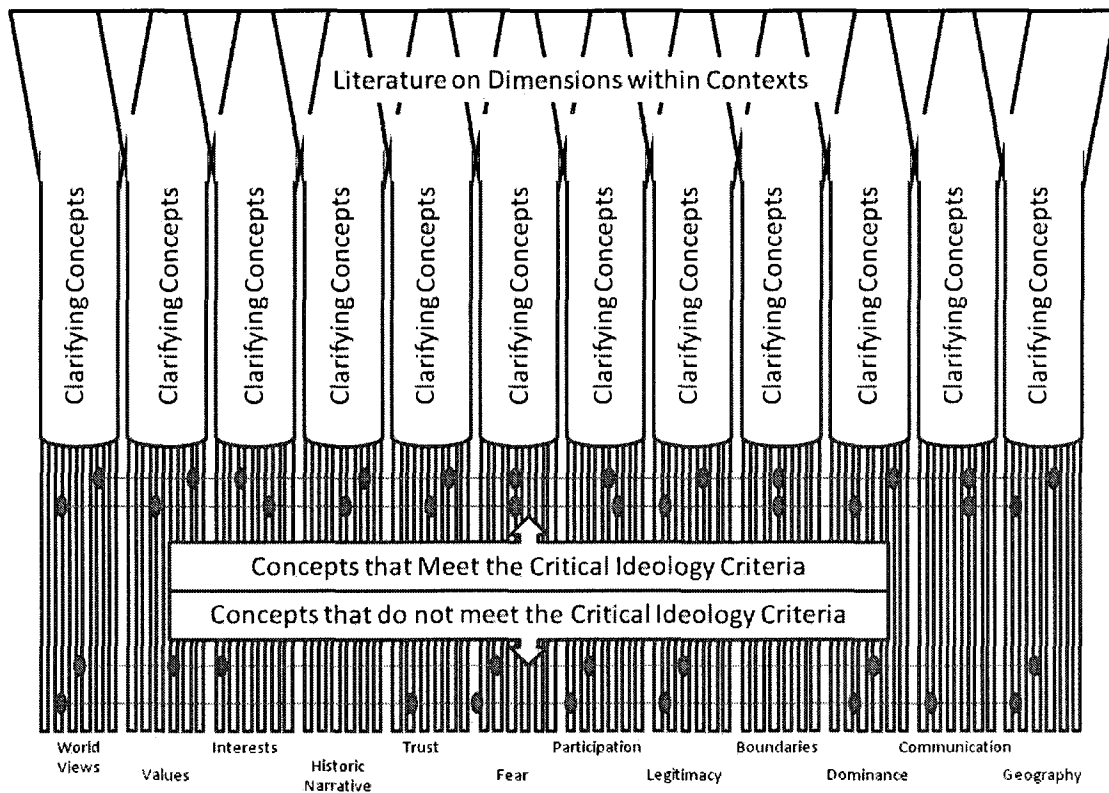


Figure 31 Concepts for Two Different Purposes

Each of the three contexts has a domain of analysis that determines epistemological, ontological, and methodological approaches (Alford & Friedland, 1992). While there is overlap, domains are distinguished by how power operates within each context. In systemic contexts, power operates at the societal level; in situational contexts, power operates at the level of the individual; and in structural contexts power operates at the level of organizational analysis (Alford & Friedland, 1992). By “level of organizational analysis” I mean analysis that focuses on structural characteristics of enterprises. Table 53 illustrates the relationship between contexts, dimensions, and how power operates.

Table 53 How Power Operates Across Contexts and Dimensions

Context	Dimension	How Power Operates
Systemic	World Views	Societal Level
	Values	
	Interests	
	Historic Narrative	
Situational	Trust	Individual Level
	Fear	
	Participation	
	Legitimacy	
Structural	Boundaries	Organizational Level
	Dominance	
	Communication	
	Geography	

Table 54 lists the primary texts used to identify the clarifying concepts associated with the twelve dimensions within the systemic, situational, and structural contexts. These primary sources were derived from the literature review in Chapter II. For the

overall research project, the primary texts are W. Richard Scott, *Organizations: Rational, Natural and Open Systems* (2003); Robert R. Alford and Roger Friedland, *Powers of Theory* (1992); Graham Allison and Philip Zelikow, *Essence of Decision* (1999); Quentin Skinner, *The Foundations of Modern Political Thought* Volume I and II (Skinner, 1978a, 1978b); and Ian Mitroff and Harold Linstone's *The Unbounded Mind: Breaking the Chains of Traditional Business Thinking* (1993). Each of these works emphasizes dialectical analysis as useful for understanding cooperation, conflict, and frustration within enterprises. For example, Scott defined three diverse levels of organizational analysis based on whether “the phenomenon to be explained is the behavior of individuals, of organizations, or of systems of organizations” corresponding to social, psychological, organizational, and ecological levels, respectively (Scott, 2003, p. 17).

Table 54 Primary Works for Characteristics of Dimensions within Contexts

Area	Primary Texts
Dialectical Analysis	(Alford & Friedland, 1992; Allison & Zelikow, 1999; Scott, 2003; Skinner, 1978b)
Systemic Context	(Cederman, 2001; Laclau & Mouffe, 1985; Stone, 2002)
World Views	(Checkland, 2004; M. C. Jackson, 2003; Weick, 1995)
Values	(Agle & Caldwell, 1999)
Interests	(Habermas, 1972; Rosen, 2005; Weber, 1978b)
Historic Narrative	(Josselson & Lieblich, 1993; Kieser, 1994; Kratochwil, 2006; Turchin, 2003)
Situational	(Donald, 2002; Giddens, 1984; Stone, 2002)
Trust	(Jones & George, 1998; Lewicki, McAllister, & Bies, 1998)
Participation	(Habermas, 1996a; Kenny, 1975; Stone, 2002)
Perceived Legitimacy	(Froomkin, 2003; Katz & Kahn, 1966; Mintzberg, 1983; Weick, 1995)
Fear, Honor and Emotion	(Rosen, 2005; Stacey, 2003; Zimbardo, 2008)
Structural	(D. Held, et al., 1999; Stone, 2002)
Boundaries	(Lu, Byrne, & Maani, 2000; Stone, 2002)
Dominance	(Clegg, 1989; Kaufman, 1981; Laclau & Mouffe, 1985)
Communication	(Katz & Kahn, 1966; J. G. Miller, 1960)
Geography	(D. Held, et al., 1999; Soja, 1994)

Systemic Contexts

Systemic contexts are concerned with the environmental and biological circumstances that shape interactions between world views, values, and ideas, interests, and historic narratives. The dimensions within the systemic context emphasize a societal

level of analysis (Alford & Friedland, 1992). Analysis will necessarily be qualitative and to some degree subjective. The domain for analysis is highly abstracted from reality, hence the focus of analysis should be exploratory and should examine possibilities of emergent behaviors.

Systemic power can be (1) normalizing through institutional agendas, (2) without locus and sensed through frustration and interpersonal conflict, or (3) coercive, hegemonic, and exploitative of social relations (Bachrach & Baratz, 1962, p. 947; Bennett, 1991, p. 86; Foucault, 1980; Marx, 1978a). Systemic power influences world views, values, interests, and historic narratives which can form early in life and shape future inclinations in politics and intergroup relations (Elder, 1965, p. 174; Levinson, 1964, p. 301). Normalizing effects due to systemic power tend to be ubiquitous when compared to normalizing effects through rules and processes found in structural contexts.

Systemic contexts are often associated with culture. The concept of culture has been extensively studied in organizational theory, but recent literature tends to focus on socialization and situational arrangements (Schein, 2004; Weick, 1995). Political culture and organizational culture were explored in Chapter II. Despite the current emphasis on short time periods, there are organizational theorists who argue the importance of understanding the historic context of enterprises. Max Weber (1978a) argued sociological analysis, informed by history, offers greater precisions to the definition of concepts within enterprises. He emphasized the importance of sociological investigation to understand what degree concrete historical phenomena can be subsumed under concepts (Weber, 1978a, p. 20). Kieser (1994, p. 609) and explains that the interest in the history of enterprises has waned largely due to the professionalization of sociology. One exception has been labor process theory, including literature regarding enterprises on contested domains which has been broadly isolated from mainstream organizational theory (Edwards, 1979; Kieser, 1994, p. 20; Marx, 1978a).

Understanding change in systemic contexts is particularly challenging in enterprise transformation problems where existing concepts have been institutionalized in patterns of communication, language, rules, and processes. New concepts complement and collide with existing world views, values, interests, and historic narratives but in general, enterprises do not have adequate frameworks or language to manage systemic

change. In large part this is due to the fact that in systemic contexts, the degree of abstraction necessary to perform analysis is high. That is, in problems where the domain for analysis is highly representative of reality, systemic perceptions of analysis and design are quasi-interchangeable; however, systemic perceptions of emergent behaviors such as those found in transformation problems (and especially in systemic contexts) are limited (Sousa-Poza & Correa-Martinez, 2005, p. 2748). Hence, predictive tools based on assumptions of rational behavior and qualitative data are limited in systemic contexts.

World Views

The Oxford English Dictionary considers the word *world view* in a special category of the noun *world* where world-view is synonymous with the German word *weltanschauung* and defined as a “contemplation of the world, view of life” (Oxford, 1989). As such, a world view is a conceptual scheme to characterize contemplations of the world for the purpose of comparison. This section examines the world views of theoretical perspectives that may be described and not of the researcher describing the theoretical perspective. While this distinction is made, I acknowledge that the ontological, epistemological, and methodological choices of the researcher influence the descriptions of theoretical perspectives. This point is addressed in both the chapter on rough set theory as well as in the section on research limitations in Chapter VII.

Inherent in any world view is an assumption about whether human nature is fixed or changeable. The attribution of a fixed nature of man bounded between the potentiality for evil as well as for good is a theme that consistently recurs in the thought of Augustine, Niebuhr, Spinoza, and Morgenthau (Waltz, 2001, p. 27). Empirical and historical studies that claim one extreme over the other are fraught with contested interpretations over evidence. Fundamentally, the interpretation of the evidence (good versus evil) is based upon the researcher’s theoretical perspective (Waltz, 2001, p. 28). While assumptions about human nature are limited in casual explanations (why wars occur, why companies fail, etc.), they are useful for explaining the necessary imperfections of social and political forms found within enterprise transformations. That is, addressing politics and developing politically sensitive solutions to enterprise problems is an inherently imperfect, yet necessary, process.

The assumption that human nature is changeable is central to many disciplines including psychology, sociology, and education, while assumptions about whether human nature is changeable or not are contested in political science, international relations, and organizational theory. In the discipline of international relations, the Kantian rationalist argument that people are perfectible is debated against claims that a Hobbesian state of nature is inevitable (Terriff, et al., 1999, p. 67). Within organizational theory, human nature is fixed and can be rationally managed, as in the scientific approach of Beer, or it is changing through socially constructed identities and knowledge as found in Weick's sensemaking process (Beer, 1966, pp. 17-32; Weick, 1995). In political science, qualitative approaches found in some branches of conflict and decision theory hold human nature as constant while other areas of political science study political culture.

In the synthesis of the literature of politics in Chapter II, ideological versus pragmatic world views were discussed. An ideological world view entails a hierarchical structure of systemic dimensions based on a general set of principles, whereas a pragmatic view is concerned with the evaluation of problems within their situational and structural contexts (Verba, 1965). Alford and Friedland (1992, p. 450) label this concept theory-method relations and distinguish views as either puzzle, problem, or praxis. Hence, a person or group with an ideological world view would view theory-method relations as a puzzle, whereas a person or group with a pragmatic world view would view theory-method relations as a problem. Two related concepts are theory-reality relations and unresolved issues. Both of these are concerned with how enterprises handle cooperation, conflict, and frustration. Those who hold an ideological world view are inclined to see differences in class ideologies or view reality as social phenomena whereas those who hold a pragmatic view see analytic frameworks applied to a specific problem (Alford & Friedland, 1992, p. 450). Paradoxes and contradictions are inherent in ideological world views and pragmatists see dilemmas where a choice must be made between undesirable alternatives. To summarize, theory-method relations, theory-reality relations, and unresolved issues are clarifying concepts associated with world views.

The three clarifying concepts named above are also related to knowledge. What counts as knowledge, how knowledge is derived, and the methods for deriving knowledge significantly shape world views. Guba and Lincoln (2005, p. 193)

differentiate between different paradigms of inquiry while Alford and Friedland (1992, p. 450) define a category of “knowledge” in which different theoretical perspectives on knowledge are described in a paradigmatic model. The clarifying concepts from these sources are incorporated in Table 55.

Table 55 Clarifying Concepts Associated with the Dimension World Views

Concept	Description 1	Description 2	Description 3	Description 4
Human Nature	Fixed	Constant		
Theory-Method Relations (Alford & Friedland, 1992)	Puzzle (ideology)	Problem (pragmatic)	Praxis	
Theory-Reality Relations (Alford & Friedland, 1992)	Theory of a phenomena	Analytic framework of a problem	Ideology of a class	
Unresolved Issue (Alford & Friedland, 1992)	Paradox	Dilemma	Contradiction	
Ontology (Guba & Lincoln, 2005, p. 193)	Naïve Realism ²⁵	Critical Realism ²⁶	Historical Realism ²⁷	Relativism ²⁸
Epistemology (Guba & Lincoln, 2005)	Findings true	Findings probably true	Value-mediated findings	Created findings
Nature of Knowledge (Guba & Lincoln, 2005)	Verified hypothesis established as facts or laws	Non-falsified hypotheses that are probably facts or laws	Structural / historical insights	Reconstructions coalescing around consensus
Image of General Change (Alford & Friedland, 1992)	Evolution of systems	Manipulation of structures	Transformations of wholes	

Values

Whenever groups of people are together for a period of time, they begin to develop normative orientations that affect behaviors of the group and individuals within

²⁵ Reality is “real” but apprehensible (Guba & Lincoln, 2005).

²⁶ Reality is “real” but only imperfectly and probabilistically apprehensible (Guba & Lincoln, 2005).

²⁷ Virtual reality shaped by social, political, cultural, economic, ethnic, and gender values crystallized over time (Guba & Lincoln, 2005).

²⁸ Local and specific constructed and co-constructed realities (Guba & Lincoln, 2005).

the group. Values are part of this normative behavior. Values exist where there is the presence of criteria or standards of preferences (Williams, 1979, p. 16). The following quote emphasizes the importance of values:

Values are determinants of virtually all kinds of behavior that could be called social behavior or social action, attitudes and ideology, evaluation, moral judgments and justifications of self and others, comparisons of self with others, presentations of self to others, and attempts to influence others. (Rokeach, 1973, p. 5)

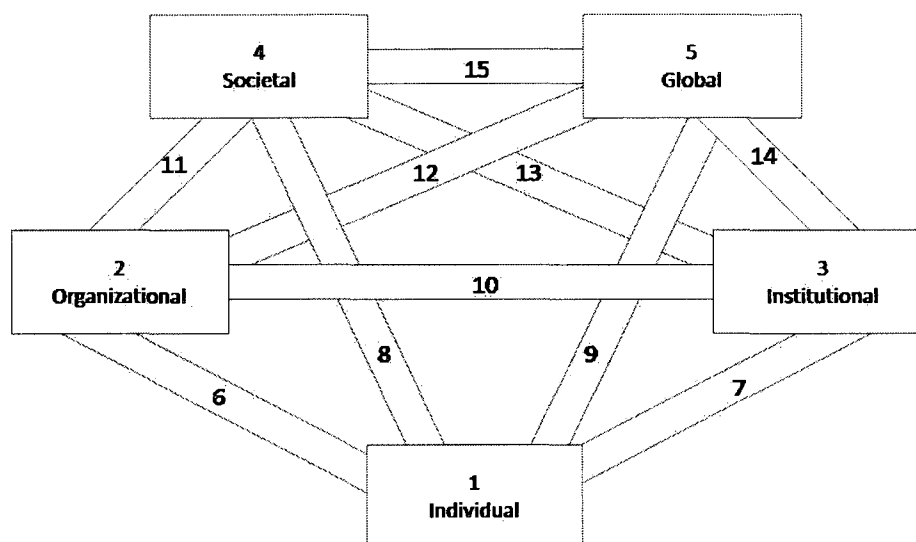
Agle and Caldwell (1999, pp. 326-332) surveyed ten years worth of literature on values research compiling more than two-hundred articles to develop a level of analysis framework. Their framework is represented in Figure 32; what follows is a brief summary of the categories of analysis.

Level 1: Individual Values

The authors found that the majority of the literature surveyed was concerned with individual values from theoretical considerations about the meaning and measure of values to empirical examinations of preferred end states (social recognition, an exciting life, world at peace, equality) and instrumented values (Agle & Caldwell, 1999, pp. 332-333). The literature ranges from the strategic to operational to ethic values; however the authors also found that was a “multitude of conflicting and complementary findings” (Agle & Caldwell, 1999, p. 341). Agle and Caldwell (1999) found an important implication for cross level research:

...findings are often less clear due to the fact that measuring values implies measuring multiple values simultaneously...empirical results are frequently contradictory in that some values are explanatory and some are not; thus researchers often must interpret their findings in light of their own subjective understanding of what is theoretically significant...[t]his difficulty is encountered at all levels of analysis. (p. 341)

A Level of Analysis Framework for Values Research



(Agle, 332)

Figure 32 Levels of Analysis for Values Research

Level 2: Organizational Values

This level of analysis was also well researched in particular in the area of organizational culture (Agle & Caldwell, 1999, p. 341). Instruments of measurement, work motifs, climates, social responsibility, organization performance as a function of shared values, and whether values produce economic returns are among the issues researched (Agle & Caldwell, 1999, p. 345).

Level 3: Institutional Values

The authors found the research on institutional values not easily categorized (Agle & Caldwell, 1999, p. 345). There are descriptive studies on the values of labor, management, science, education, and other public and private institutions (Agle & Caldwell, 1999, pp. 345, 349).

Level 4: Societal Values

Research on societal values is characterized by the authors as popularized due to increasing movements towards globalization but lacking in theoretical work and contradictory in empirical research (Agle & Caldwell, 1999, p. 349). The authors suggest that “the variance at specificity at which the values are articulated” may be one explanation for the contradictions and more work on a theory on values specificity may help resolve these inconsistencies (Agle & Caldwell, 1999, p. 349).

Level 5: Global Values

The authors found global values to be the least studied of all levels (Agle & Caldwell, 1999, p. 349). Some of the research argues that abstractly, there are values common to the globe—examples include “thou shalt not kill” and “thou shalt not steal” (though Jihads bring into question the claim of the former), “do unto others as you would have them do unto you,” love, truthfulness, fairness, freedom, tolerance, and respect for life (Agle & Caldwell, 1999, p. 353). These claims have not been well tested, perhaps, the authors suggest, because of the challenges of testing the existence of global values (Agle & Caldwell, 1999, p. 349).

Level 6: Personal and Organizational Values

The authors found this the most popular of inter-level categories with the majority of studies focused on “the causal relation between personal values and organizational value” but lacking in developing an understanding between organizational decision making and executive values (Agle & Caldwell, 1999, p. 353). The authors suggest that “A comparison of articles using a combination of instruments (qualitative and quantitative) suggests that such a combination is likely to yield results that are more sensitive to levels of analysis issues” (Agle & Caldwell, 1999, p. 355).

Levels 7-15: Other Categories

This category includes personal and institutional, personal and societal, personal and global, organizational and institutional, organizational and societal, institutional and societal, institutional and global, and societal and global values. The authors found very

few articles here and no empirical articles probably, they suggest, due to a lack of methods in measuring values at these levels (Agle & Caldwell, 1999, p. 359).

Given the large numbers of levels of analysis found in literature on values, the potential for error in drawing conclusions is high. Agle and Caldwell argue that in values research, “suggesting that an organization or society learns new values in the same manner as do individuals is a likely candidate for a condition exhibiting a cross-level fallacy” (1999, p. 366). However, they conclude that given the theoretical progress to date, research in this area is useful in terms of higher-level analysis.

Concepts that distinguish values within theoretical perspectives need to be sensitive to the multiple levels of analysis possible. Values are distinguished by effective, cognitive, and directional aspects and function as criteria for selection in action (Williams, 1979, p. 16). They can be implicit and inferred from selection action or explicit. There are a plethora of lists of values and the majority of them can be found in any mature large size enterprise (Bales & Couch, 1969; C. Kluckhohn, 1951; F. R. Kluckhohn, 1961; Morris, 1956; Williams, 1979). Yet it is clear enterprises differ in their patterns of values. At the level of the individual, these differences can be described by the way individuals organize values to form value hierarchies or priorities (Rokeach, 1979, p. 49). Indeed, most value researchers conclude there are “relatively few major value dimensions that can constitute the organizing principles for thousands of specific beliefs and attitudes” (Rokeach, 1973; Williams, 1979, p. 22). Hence, the researcher is poised with two choices: to compare values level to level or analyze value spaces.

This research will use the orthogonal factors found in Bales and Couch (1969) to describe the value space for each theoretical perspective. These factors are chosen for four reasons. First, the orthogonal factors developed by the authors have been widely used and cited. Second, the breadth and depth of the study was large. Eight hundred and seventy-two value statements were evaluated incorporating data from numerous studies. Third, the value space approach reduces the semantic challenges due to the high degree of variability of value descriptions in the literature. Finally, the emphasis on value spaces de-emphasizes the need for specifying the level of analysis associated with the value description. Value spaces are invariant over levels when used in the context of this research where the focus is on a theoretical, not practical, framework. Table 56 lists the

orthogonal factors used in this research to describe the value space for each theoretical perspective. Note that the term “orthogonal factor” is used by the authors to stress directionality. From this point on I will use the term “clarifying concept” instead to eliminate unnecessary terminology in the research. In addition, I include the clarifying concept of “normal functioning enterprise” adapted from Alford and Friedland (1992). This concept distinguishes between preferences regarding an ideal functioning enterprise.

Table 56 Clarifying Concepts Associated with the Dimension Values

Clarifying Concepts	Comments
Acceptance of authority (Bales & Couch, 1969)	Assessment of the extent to which authority is accepted in value statements
Need-determined expression over value-determined restraint (Bales & Couch, 1969)	Agreement with need-determined value statements such as ‘the only values are those of the moment’ as opposed to value-determined restraint such as ‘resist temptation’
Egalitarianism ²⁹ (Bales & Couch, 1969)	Extent to which there is agreement with value statements favoring egalitarianism
Individualism (Bales & Couch, 1969)	Extent to which there is agreement with value statements favoring individualism
Normal Functioning Society (Alford & Friedland, 1992, p. 446)	Definition 1: Integration and Consensus Definition 2: Rationalization and Order Definition 3: Hegemony and Accumulation

Interests

The history of the concept of interest sheds light on the source of the diversity of interpretations over time:

As a crucial notion for the understanding of human behavior, the concept of interest emerged in early modern political theory. It was part of the sceptical view of human affairs that informed the secular approach to politics and government which arose anew in the Renaissance. In the course of the seventeenth century, the concept entered a variety of other discourses as well, and gained a strategic significance by becoming linked to a theory of civil exchange. This view was subsequently elaborated on by political economists and utilitarian philosophers. From the nineteenth century onwards the conceptual changes have occurred mainly in debates accompanying the formation and development of academic disciplines. Interest became embedded primarily in economic theories, which have

²⁹ The authors use the term “equalitarianism” but I will use the term “egalitarianism” which is more conventional and often used as a substitute without comment when cited by other researchers.

been emulated as well as contested in other disciplines. (Heilbron, 2001, p. 7708)

Depending on the framework for analysis used, interests can be very different or very similar to values. In the previous section, I wrote that values exist where there is the presence of criteria or standards of preferences (Williams, 1979, p. 16). The concept of interest is distinguished from the concept of values by the relation of being claimed, whether by legitimate means or not, and by the relation of being means to achieve something of value. These distinguishing factors are derived from several definitions of *interest* in Oxford English Dictionary. First, interest is “The relation of being objectively concerned in something, by having a right or title to, a claim upon, or share in”(Oxford, 1989) Yet it is also defined as “Participation or share in doing something or the production of some result” and “Regard to one’s own profit or advantage; selfish pursuit of one’s own welfare” (Oxford, 1989).

Interests are frequently characterized in terms of a subjective theory of value that “grounds value either in agents” pleasures or pains, or in their pro-attitudes (wants, desires, etc.)” (D. E. Miller, 1999, p. 1). Research on interest suffers some of the same cross-level challenges found in values research. There is research on situational interest that studies states of interest within environments and research on the relationship between individual interests and objects, as well as group and institutional interests (Renninger, Hidi, & Krapp, 1991). Yet, for some researchers, ascribing interests is a thing to be avoided, for it imposes “an ideological order on persons, denying their freedom and agency rather than observing them as they are” (Balbus, 1971; Downs, 1962; Flathman, 1962; V. Held, 1970; Mathiowetz, 2008; Schubert, 1961; Sorauf, 1962). But, as Mathiowetz points out, to know the interests of individuals or groups without ascribing them is not altogether clear. Hence, in this research, I will assume that interests can be ascribed and, as is central to the research, an ideological order is “imposed” on the subject studied.

In political science, interest groups are a unit of study arising from the realization that patterns of political behavior are influenced by such groups (Garceau, 1958, p. 104). Why, when, and through what means these groups act is the focus of much of the research in this area (Lowery & Gray, 2004; Rowley & Moldoveanu, 2003). In

international relations, the interests of states are the focus of realism and neo-realism approaches, while post-positivist and liberalism approaches focus on the interests of states in relation to the broader values of cooperation, peace, and progress (R. Jackson & Sørensen, p. 6; Terriff, et al., 1999). In organizational theory, Weick (1995) echoes the post-positivist, socially constructed approach by placing the human need for identity as central to the sensemaking process (p. 22). In the sensemaking process, identities are associated with individual interests. The fact that individuals can hold multiple identities further complicates the cross-level analysis challenges.

Interests can be material or non-material (e.g., ideas). The degree to which the political behavior of enterprises is motivated by material interests is contested. For example, Boies demonstrated that while material interests do factor into the political action of Fortune 500 companies, “only interests tied with special long-term relationships with the state [industrial concentration; historical and types of relationships; individual actions] serve to increase the amount of political action taken by large firms” (Boies, 1989, p. 821). In terms of the global polity, the political action of foreign firms is largely absent in explanations of foreign investment; explanations tend to take the ethnocentric view that the size of foreign political activity is equated with the size of foreign economic activity (N. J. Mitchell, 1995, p. 447). Indeed the pressure from the host political economy, the enterprise that must accommodate the investment, is a larger factor than pressures from the originating nation (N. J. Mitchell, 1995, p. 463).

In all, the literature on interest research appears theoretically incoherent. Lowery and Gray (2004) add to the criticism:

For example, does the nature of mobilization processes constrain the kinds of influence tools interest organizations can usefully employ? Does the structure of interest communities constrain further prospects for mobilization? Are the use of influence tools conditioned by the diversity and density of interest organization populations? Until these linkages and potential feedbacks among the several stages of the influence production process are fully specified, it seems unlikely that we will develop a coherent and encompassing theory of interest representation. (p. 164)

Still, the authors note there has been recent progress in the field using models of population ecology (Lowery & Gray, 2004, p. 166). The progress has resulted in the recognition that interest groups are not simple accumulations of mobilization outcomes.

That is, interest groups have their own dynamic properties worthy of the theory and analysis on interest group traits (Lowery & Gray, 2004). Furthermore, advancements in the field indicate that the interest group structures influence both the influence tools and mobilization processes (Lowery & Gray, 2004, p. 167). Hence, mobilization and the influence process cannot be either theoretically or empirically separated from each other (Lowery & Gray, 2004, p. 167).

Alford and Friedland (1992) hold interests as central to the conception of politics. Across theoretical perspectives, the common element in conceptions of politics is “a recognition of differences of interest and of the possibility of organizing to realize those interests” (Alford & Friedland, 1992, p. 208). In fact, the operative definition of politics used in this research is based on strategic alliances of interest. As the framework developed in this research is theoretical, I leave open the questions regarding situational and structural tactics and the mobility of strategic alliances of interest. To do otherwise, using the methodologies found in interest research would require more details about the situations in which interests are considered, shifting this research into the realm of practice, not theory.

Instead, the dimension of interest as defined will play a significant role in guiding the reduction of literature on interests within theoretical perspectives. That is, interests are captured from the literature if they have the relation of being claimed, whether by legitimate means or not, or by the relation of being means to achieve something of value. In addition, the concepts “when interests are shared” and “when interests are not shared” will be used to help distinguish the nature of competition between competing interest individuals or groups.

Table 57 Clarifying Concepts Associated with the Dimension Interests

Concept	Description 1	Description 2	Description 3
When interests are shared (Alford & Friedland, 1992)	Cooperation	Conformity	Solidarity
When interests are not shared (Alford & Friedland, 1992)	Competition	Conflict	Struggle

Historic Narratives

Max Weber, one of the forefathers of sociology and bureaucratic organizational theory, believed that an understanding of how organizations developed was necessary to understand contemporary institutions (Kieser, 1994, p. 609). Karl Marx (1978a), who is influential in both autocratic and cognitive perspectives, was convinced an appreciation of history was necessary in the labor process: “Relics of bygone instruments of labour possess the same importance for the investigation of extinct economic forms of society, as do fossil bones for the determination of extinct species of animals. It is not the articles made, but how they are made, and why what instruments, that enables us to distinguish different economic epochs” (p. 346). Aside from labor process theory, the trend in organizational theory has been away from historic analysis (Kieser, 1994, p. 609). Kieser (1994) identifies several reasons why historical analyses should be revitalized in organization research:

- Structures of and behavior in present organizations reflect culture-specific historical developments. Differences between organizations in different cultures can, therefore, only be explained completely if the historical dimension is included in the comparison.
- The identification of actual organization problems and of their appropriate remedies is often not free of ideology. By confronting current “fashionable” trends in organizational theory and practice with similar developments in the past, we can identify and possibly overcome prejudices that characterize the presentation of these trends.
- Historical analyses teach us to interpret existing organizational structures not as determined by laws but as the result of decisions in past choice opportunities, some of which were made intentionally and others more implicitly. (pp. 609-611)

In enterprise transformations, where new concepts present themselves, historical analysis can help the researcher understand what concepts have been formed in the past, for what reasons they have been formed, and to what degree they have been successful, in order to understand the potential political behaviors that might emerge as the enterprise evolves. Kratochwil (2006, pp. 6-7), in his analysis on history, action and identity

argues, “the understanding of ‘politics’ requires a historical awareness that is *sui generis*. Politics is inherently *practical* since it deals with doing the right thing at the right time in view of the particular historical circumstances.” Kratochwil (2006) claims:

...it is through historical reflection that we become aware of the “dialectic of choice” in which from the present the past is recollected and joined with the future by means of a political “project.” To that extent the model of ‘rational action’ is expanded, as it is no longer limited to the present preferences (whose genesis remains, however exogenous) but the later are linked to future expectations. Instead, the agents’ valuations are now systematically tied to individual and collective identities, as well as to future “projects” (utopias) which, in turn are not restricted to probabilities by which one assesses the occurrence of events. (pp. 7-8)

The critical element, he writes, is time:

Time is rather the condition that is deeply implicated in our very constitution of agents and of our collectivities. It forces us to reflect on the dialectics of choice, where a present problem evokes a certain recollection and where we must make sense of antecedent actions and events, through the construction of a frame for assessing who we are on the bases of where we came from. In this way it influences our strategies for the projects we try to realize. It forces us to become aware of our limitations as historical beings, but at the same time it also enables us to go on and conceive our societies as intergenerational ongoing concerns. (Kratochwil, 2007, p. 9)

I established the value of history and the historic narratives that influence politics; how historical analysis should be performed is a subject of much debate. Kieser (1994) describes three different approaches using the example of early putting-out systems in Germany. A putting-out system is the 17th century merchant-employers production system. It developed as the guild system transformed into one where materials were bought by merchant-employers who used rural home worker labor to produce goods. The first approach is to develop general “models that are conceptualized independently of the phenomena which are to be explained, and applied as explanatory frames to historical data” (Kieser, 1994, p. 617). An example is a labor process interpretation of putting-out systems. Marglin (1974) argues that capitalist profit interest was the main motivator behind the emergence of division of labor and centralized organization. Kieser (1994) argues this interpretation does not completely align with historic facts and that in general this approach introduces a high degree of arbitrariness into the historical analysis (p. 617). In addition, this approach is especially susceptible to ideologies (Kieser, 1994, p.

617). In terms of this research, this approach is most commonly found in cognitive perspectives and to some degree in autocratic ones.

The second approach uses theoretical concepts to establish “ideal types” and histories are examined for their deviations from this baseline (Kieser, 1994, p. 617). Complementing this approach is a structural evaluation: “European feudalism can be more sharply defined by comparison, say, with Japanese feudalism, (and) the significance of the Church in Western civilization seen more clearly by contrast with civilizations in which comparable clerical orientation did not develop” (Bendix, 1977; Kieser, 1994, p. 617). In this approach, several approaches are contrasted to find theses and questions for the analysis of the topic in question; “comparisons are used to highlight the features particular to each historical context” (Kieser, 1994, p. 618). The strength in this approach is that it clarifies particularities through contrasts and conveys richness to the analysis that cannot be provided by any one approach. The disadvantage of these approaches is “they are likely to display inconsistent causal assertions and missed opportunities for exploring casual regularities” (Kieser, 1994, p. 618; Skocpol, 1984). This type of historical analysis reflects a pluralistic perspective where each approach has a voice that is considered in the final analysis.

Finally, a third approach assumes that history contains causal regularities that are discovered through alternative hypotheses over complementary or conflicting theories (Kieser, 1994, p. 618). The strength of this approach is its inclusion of multiple causes as the researcher searches for emergent causal schemes in historical data (Kieser, 1994, p. 618). Criticisms of this inductive approach include the possible inclusion of bias from the non-systemic nature of the data: inconsistencies in causal mechanism (though general theories are derived inductively), bias introduced through the choice of cause, and the difficulty in distinguishing hypothesis that do or do not contain causal mechanisms (Kieser, 1994, p. 618). Still, Kieser (1994) argues that the inductive approach is less weak than the other two approaches.

Historical institutional analysis is an emerging area of research that contributes to the field of comparative politics. However, “this scholarship has lacked a self-conscious approach to methodology” and needs “more careful reflection about research design and methodology” (Lieberman, 2001). Lieberman (2001) writes, “Because the narrative style

of reporting historical analysis does not generally lend itself to explicit statements of analytic strategies-or at least not the extent typically associated with statistical analyses-other scholars may find it difficult to evaluate, replicate and/or emulate this research” (p. 1012).

Despite the challenges of historic analysis, the activity provides useful results in particularly in the analysis of politics. Interpreting history to manipulate systemic, situational, and structural arrangements is a powerful position to exploit as “decision-makers strive to be consistent and have no time to check the appropriateness of the interpretation” (Kieser, 1994, p. 619).

Throughout the debate on issues associated with historical analysis and as Kratochwil (2007) stated, time is the critical element. Hence, the clarifying concepts associated with historic narratives are concerned with change over time. The two concepts associated with change that are drawn from Alford and Friedland will distinguish how different theoretical perspectives perceive long-term change and the ideal end state (1992, pp. 446, 448).

Table 58 Clarifying Concepts Associated with the Dimension Historic Narrative

Concept	Description 1	Description 2	Description 3
Source of change (Alford & Friedland, 1992)	Disorganization	Rebellion	Class struggle
	Tensions	Conflicts	Contradictions
Process (Alford & Friedland, 1992)	Institutionalization (political development)	Bureaucratization (rationalization)	Socialization (regulation of contradictions)
The whole (Alford & Friedland, 1992)	An aggregate of interdependent but autonomous parts	A structure with dominant elements	A totality determining internal relations
External System (Alford & Friedland, 1992)	Environmental factors	External constraints	Totality of relations
Causation	Interdependent influence of multiple factors	Dominance of forces in structures	Hegemony of imperatives
Empirical reference	Empirical indicator	Causal force	Historical manifestation
Human nature (Waltz, 2001)	Constant	Changing	

Situational Contexts

In situational contexts, analysis is concerned with the political behavior of individuals and groups and the influence their interactions have on the trust environment, participation, and perceptions of fear and legitimacy. As with systemic contexts, the dimensions in situational contexts are to a large degree qualitative and subjective. Analysis occurs at the level of community and individual which differs from the universal perspectives found in systemic contexts. There is a large amount of literature in organizational theory regarding politics at the situational level. Handy (1993, p. 291) writes that dealing with differences between communities and individuals takes up the largest single chunk of managerial time and cites statistics supporting the claim that politics is not well understood or addressed. Not surprisingly, empirical analysis is dominant in this context and hence conclusions derived from analysis must be particularly sensitive to issues associated with analysis on multiple levels within enterprise. These issues will be explored further in Chapter III.

Situational power is relational power between agents and / or groups within or outside the enterprise in this context (Alford & Friedland, 1992). It exists where there is competition to affect systemic, situational, or structural arrangements between relatively equal participants. Hence, analysis requires an assessment of the relative capacities and capabilities of the different actors in specific situations. Situational power is more fluid than systemic power as political forces “are frequently forced to move between types of politics as historical conditions change the potential bases for support [to affect systemic, situational and structural contexts], elite strategies and institutional contexts” (Alford & Friedland, 1992, p. 412). Hence, change in situational contexts is highly contextual and emotionally based.

Situational contexts are referred to in varying ways in the literature. Scott (2003) refers to shared beliefs and understanding about the nature of situations and interests as a cultural-cognitive structure (p. 19). In this structure, interpretation and collective understanding is achieved through the use of symbolic communication in the form of schemas, models, and recipes for action (Berger & Luckmann, 1967; Scott, 2003; Weick, 1995). Similarly, political culture examines the system of expressive symbols, empirical beliefs, and structures which defines the situation in which political action takes place

(Pye, 1965; Verba, 1965). While these descriptions have systemic elements, they are fundamentally focused on analysis in situational contexts.

Trust

Enterprise transformation problems are a seemingly chaotic jumble of facts and opinions which managers attempt to sort out in hopes of moving the organization closer to transformation goals. They are complex problems because they often involve change from the strategic level to the level of individual belief. Against this background of fallible knowledge and high uncertainty, it is difficult for managers to design, implement, and evaluate enterprise structures and processes to achieve transformation goals. Indeed goal setting itself can be problematic particularly in enterprises where there are diverse cultural perceptions. The multiple mixed motives that shape the behaviors inherent in this environment require a foundation of trust for effective collaboration (Lewicki, et al., 1998). In this section I develop an overview of the literature based on existing literature surveys on the dimension of trust and describe an organizing framework used by researchers in the field. The framework is used to derive clarifying concepts associated with the dimension of trust.

Definitions of Trust

The theoretical reasons that people trust has been the subject of research across multiple domains including psychologists, sociologists, political scientists, economists, anthropologists, and researchers of organizational behavior (Lewicki, et al., 1998, p. 438). Vulnerability is a common characteristic when describing trust situations. Definitions of trust range from “one party’s willingness to be vulnerable to another party based on the belief that the latter party is (a) competent, (b) open, (c) concerned, and (d) reliable” (Mishra, 1996, p. 265) and trust as a characteristic that derives “at least partially from the reciprocal vulnerabilities and uncertainties that are inherent in hierarchical relationships” (Kramer, 1996, p. 217), to the inclusion of the idea of risk where trust is “the reliance upon the behavior of a person in order to achieve a desired but uncertain objective in a risky situation” (Giffin, 1967, p. 105). There are also organizational views of trust where “trust is defined as the employees’ feelings of confidence that, when faced

with an uncertain or risky situation, the organization's words and behaviors are consistent, and are meant to be helpful" (Matthai, 1989, p. 29). While there is no clear consensus on a definition of trust, there is wide acknowledgement from scholars that cooperative behavior emerges from relationships built on trust (Jones & George, 1998, p. 531).

Concepts of Trust

There is a plethora of literature on the concept of and issues related to trust from multiple theoretical and practical perspectives and over a wide variety of units and levels of analysis (Connell & Mannion, 2006, p. 418). Early concepts of trust were based in sociological perspectives of power, trust in governments, and bureaucratic control through rules and systematic approaches to organizational design (Connell & Mannion, 2006, p. 418; Nyhan, 2000, p. 88). Issues of trust were relegated to hierarchy, rules, and top-down management approaches to "inculcate into organizational members the necessity for rule-following, identifying and punishing those who do not" (Grey & Garsten, 2001, p. 233). Human relations models are in some ways the polar opposite of these early conceptions of organizational trust. These models propose human-centric approaches where trust serves to facilitate shared values that facilitate organizational teamwork (Jones & George, 1998, p. 532). Jones and George distinguish between conditional and unconditional trust with an emphasis on the importance of unconditional trust as illustrated in Figure 33. Under conditions of unconditional trust, the shared values of participants form their personal behavior expectations and as a result they tend to look to the future instead of the present and past when deciding how to behave in situations (Dasgupta, 1988). Yet when conflicts between the human-centric and bureaucratic approaches occur, some authors claim management often returns to authoritative models (Carnevale, 1995). The effects of this conflict can have three maladaptive results: 1) the production of apathy or alienation among units or levels, 2) the production of blind conformity and reduced sense of responsibility, and 3) anarchy without form (Katz & Kahn, 1966, p. 470). As enterprise transformations are about fundamental change, the tensions between these two approaches are magnified. Hence,

in enterprise transformations, it is critical for managers to “work against their nature” and establish the conditions for trust to emerge.

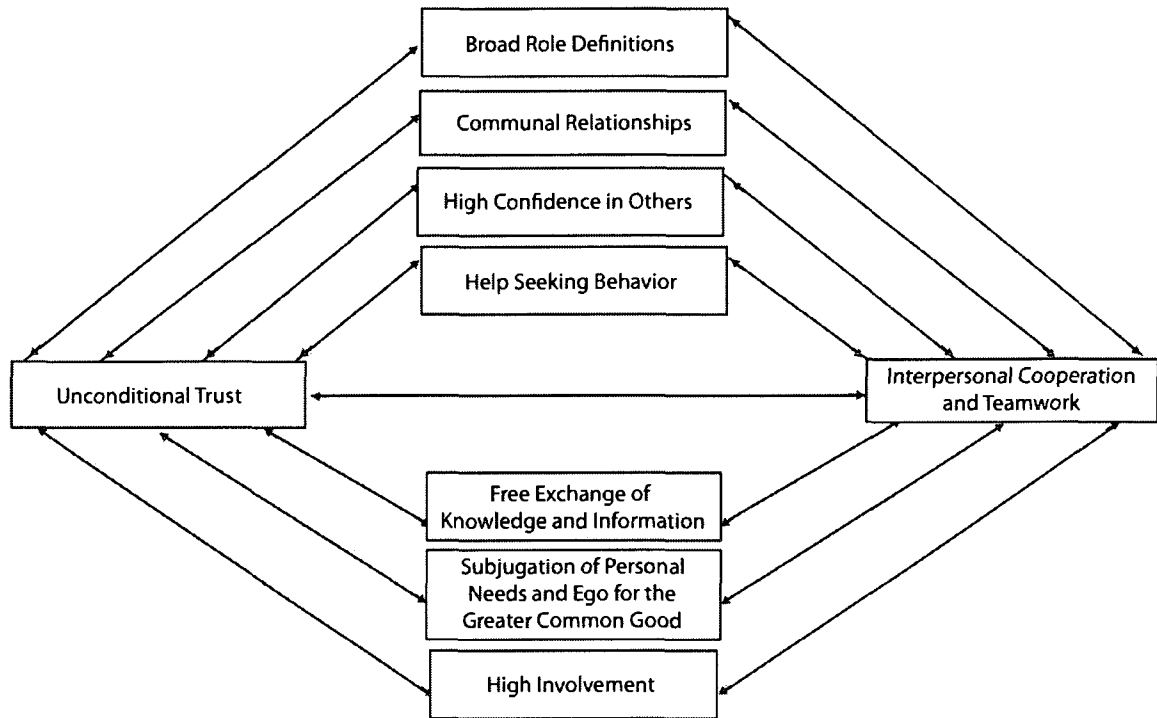


Figure 33 Unconditional Trust, Cooperation, and Teamwork (Jones & George, 1998, p. 540)

There has been an increase in the descriptions of the complexity of the interactions in the literature on trust. Hosmer (1995) developed five contexts for trust which include individual expectations, interpersonal relationships, social structures, ethical principles, and economic exchanges. The diversity of values and value propositions exchanged and proposed in enterprise transformations require a rich contextual understanding of the nature and conditions by which trust can develop.

Complexity derives from the speed and uncertainty that characterizes today’s global social, economic, and political environment. Enterprises face competitive challenges in terms of organizational growth, globalization, and the development and sustainment of strategic alliances with both partners and competitors (Lewicki, et al., 1998, p. 438). The way enterprises conduct business, develop policy, fight wars, and develop countries are with coalitions—a constant condition where participants both trust and distrust depending upon the situational conditions. Lewicki (1998) writes, “The

challenges of the modern global market-place center on the simultaneous management of trust and distrust in a hostile environment in which individuals may be just as inclined to distrust as they are to trust” (p. 439).

In this environment, participation, discussed in more detail below, becomes more important in order to consider the multi-dimensionality of multiple, often conflicting, interests. Trust in this context will be defined in terms of “confident positive expectations regarding another’s conduct” and “distrust in terms of confident negative expectations regarding another’s conduct” (Lewicki, et al., 1998). Figure 34 illustrates the relationships between trust and distrust for the purpose of this paper.

Integrating Trust and Distrust: Alternative Social Realities

High Trust Characterized by Hope Faith Confidence Assurance Initiative	High-value congruence Interdependence promoted Opportunities pursued New Initiatives	Trust but verify Relationships highly segmented And bounded Opportunities pursued and Down-side risks/vulnerabilities Continually monitored				
<table border="1"> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>1</td> <td>3</td> </tr> </table>		2	4	1	3	
2	4					
1	3					
Low Trust Characterized by No hope No faith No confidence Passivity Hesitance	Casual acquaintances Limited interdependence Bounded, arms-length Transactions Professional courtesy	Undesirable eventualities expected and feared Harmful motives assumed Interdependence managed Preemption: best offense is a good defense Paranoia				
	Low Distrust Characterized by No fear Absence of skepticism Absence of cynicism Low monitoring No vigilance	High Distrust Characterized by Fear Skepticism Cynicism Wariness and watchfulness Vigilance				

(Lewicki, 445)

Figure 34 Integrating Trust and Distrust (Lewicki, et al., 1998)

In enterprise transformations where the levels of interaction are highly complex and multi-faceted, an understanding of trust and distrust is critical. In the ideal situation, unconditional trust would permeate the organizational culture enabling both emergent and cohesive behaviors that increase the probability of transformational outcomes.

The trust framework presented helps researchers to “wrap their heads around” this quasi-stationary equilibrium state where the normal state is one of imbalance, inconsistency, and uncertainty (Lewicki, 444). Unconditional trust is an unrealistic goal at all unit levels in transformational environments that are characterized by high degrees of uncertainty. The critical element in increasing the likelihood of a trust situation is the promotion of participation to increase tolerance and awareness of values to both empower participants as well as solve problems. In this sense, trust and participation are strongly linked.

In summary, the analysis on the dimension of trust is largely situation-specific. Yet there are clarifying concepts that can help distinguish potential trust environments at the theoretical level. These concepts are captured in Table 59 below.

Table 59 Clarifying Concepts Associated with the Dimension Trust

Clarifying Concepts	Comments
Positive expectation regarding the conduct of others (Lewicki, et al., 1998)	Degree of instrumented “checks” on behaviors
Extent to which unconditional trust is fostered (Jones & George, 1998)	At a theoretical perspective, the key elements are broad role definitions, free exchange of knowledge of information, and the subjugation of personal needs and ego for the greater common good. The remaining characteristics from Jones & George (1998) (communal relationships, high confidence in others, help seeking behavior, and high involvement) depend on specifics of the enterprise situation hence are not considered in this research.
Extent to which enterprise members are willing to be vulnerable to others	Severity of punishment for conflict with dominant theoretical perspective

Participation

To understand participation, one needs to critically examine voluntary actions. The concept of agency, which is central to the concept of power, comes into play in explanations of voluntary action. Humans, animals, and inanimate objects (e.g., fire, wind, and air) have the potential for agency; that is, the potential condition of action. For humans, voluntary conscious action can be intentional or non-intentional. Intentional actions are a subset of voluntary actions that involve *want*. *Volition* is a type of want that “involves the exercise of concepts which need language for their expression” while the want *desire* “need involve only the exercise of simpler and more rudimentary

concepts, which can be manifested in non-linguistic behavior” (Kenny, 1975, pp. 51-52). This line is somewhat artificial given our ability to use concepts that introduce language to describe our desires. Caffeine takes away my desire to sleep but does not eliminate the need for sleep; I have a desire to finish this dissertation in the next semester that grows progressively more uncomfortable as I mark off the days on the calendar. Kenny (1975) suggests:

[The] nearest we can come in our own experience to pure animal desire is the case of inarticulate striving to a particular goal from which deviations can be sensed: as when, learning to ride a bicycle, I constantly react by appropriate or inappropriate bodily activity to the tugs and jolts that show I am losing my balance, without being able to give any description in language of the movements with which I strive to recover equilibrium. (p. 52)

Involuntary actions can be reactions from physical stimuli or functions necessary to maintain life such as breathing. There are degrees of control in both voluntary and involuntary actions and in large part this aspect of voluntariness will be left unexamined in this research.

To many researchers, value of participation is the experience of more dialogue and deliberation, increased probability of developing bonds of personal trust, and an increased capacity to resolve conflicts with maximal consideration of conflicting interests (Stone, 2002, p. 366). To others, participation has the goal of instilling self-esteem and self-confidence in communities and groups to gain their support for political action. Yet in organizations, participation is often subject to power struggles concerning how new configurations of participation and authority reprioritize dominant interests (Stone, 2002, p. 355). Despite these challenges, commitment can be increased by participation if the individual believes the participation is worthwhile and legitimate (Handy, 1993, p. 137). Verba (1965) writes:

Some analysis is focused on the participation of elites and the effect of participation on elite political aspirations. Larger participatory schemes introduce inefficiency and the potential for unanticipated outcomes leading to a means-ends participatory scheme (discussed below). The way in which demands for participation are met plays a major role in the development of attitudes toward political participation and integration. If the new groups demanding a voice in politics are welcomed by those who hold political power, the integration of the political system is likely to be maintained. The nature of the response of the incumbent political elites to

the demands of new groups for participation in the political process will affect the way in which these groups view their role as actors in the political system. (p. 557)

The concept of legitimacy is also considered in research on participation.

Particularly in research focused on elite behavior, the perception of legitimacy affects the degree of participation allowed.

If the participatory demands of new groups are accepted as legitimate by incumbent elites, the new groups are more likely to conceive of their participant role as compatible with the maintenance of a position of independent authority by the political elites. On the other hand, if the incumbent elites do not accept new participatory demands as legitimate, those who demand this participation are likely to conceive of such participation as requiring the overthrow of the older authority structure in order to be effective. (Verba, 1965, p. 557)

The point here is that trust, participation, and legitimacy are overlapping dimensions. Yet despite these overlapping dimensions, separate clarifying concepts are identifiable and are described at the end of this section.

Another active area of research is concerned with political participation. One factor studied is the growing use of the Internet in both political participation and surveillance impacting the perceptions of the polity on trust in the government (Krueger, 2005). Another factor that influences political participation is the interaction in social networks (McClurg, 2003). Both of these factors are applicable to participation in enterprises.

Wallace and Latcheva (2006, p. 81) studied the public's participation in both formal and informal economies in Central and Eastern European countries. They found that the less developed socially and economically privileged groups were more likely to engage in the participation in informal economies (Wallace & Latcheva, 2006, p. 98). These informal networks were also characterized by shared experiences. The black markets (illegal markets), however, did not demonstrate significant economic demographics. The authors did find a correlation between the lack of trust in public institutions and participation in the black markets (Wallace & Latcheva, 2006, p. 99). In addition, there was a significant correlation between public perceptions of corruption and trust in public institutions.

Eversole's study of participatory development models in Australia reinforce the results of Wallace and Latcheva's study described above. Eversole argues that the concept of participatory development centers on a power shift between those in power and local participants (Eversole, 2003, p. 781). Perceptions of corruption may be an indicator that participatory processes are compromised in practice. Eversole (2003) calls for more research to understand the complexities of the participatory process. On its own, current research does not capture networks, representative interests, perception of actions, and incentives to undermine the participatory processes—power, motivation, legitimacy, and trust (Eversole, 2003, p. 791).

Brown (1996) developed a framework for assessing participation that is illuminating in terms of the role of participation in three systems-based methodologies. The author compared and contrasted two polarized positions on participation: participation as means to an end and participation as a moral right of inclusion to empower the participants (Brown, 1996, pp. 195, 212). In the first case, participation is viewed as a top-down process with short term goals under the axiomatic assumption that “if the organization ‘develops,’ then the individuals within the structure will also ‘develop’ by responding to the envisaged changes” (Brown, 1996, p. 196). The process is structured around the problem owner with an emphasis on participant choice and agenda as a means to solve a predefined boundary problem in a chosen manner (Brown, 1996, p. 197). Examples include economic biases resulting in cost-benefit analysis irrespective of other perspectives (Brown, 1996). Participants in general have limited access to relevant information, resources, and limited ability to influence outcomes or negotiate (Brown, 1996, p. 197). The facilitation is focused on achieving an outcome and the interaction is dominated by concerns about efficiency (Brown, 1996, pp. 197-198). In the second case, the objective of participation is enskilling the participants with the axiomatic assumption that “in order to ‘develop’ an organization or social setting, you first have to allow for the development and enskilling of the individuals” (Brown, 1996, pp. 196-197). Here participation is holistic and the structure, agenda, and facilitation method is debated and chosen by the participants.

Brown (1996) characterizes Beer's Viable System Model (VSM) as one that specifically structures organizational communication and control around a paradigm of

scientific rationality and mathematical models of communication with the goal of effective organization (Brown, 1996, pp. 199-200). The content, quality, and conflict inherent in organizational communication design is not clarified hence cannot guarantee participative decision-making (Beer, 1966, p. 200). Brown (1996) argues that while Beer (1966) implies organizational structure can empower democratic processes, considerations in the design for the inclusion of freedom and democracy require both structure and consciousness to understand multiple conflicting values (Brown, 1996, pp. 200-201).

The ability of Checkland's Soft Systems Methodology (SSM) to achieve value neutrality in order to ensure ethical neutrality over who participates is a central concern for Brown in the assessment of participation in this methodology (Brown, 1996, p. 206). Value neutrality, in the SSM, is dependent upon the ability of participants to amend their *Weltanschauungs*, or world views in light of other participant's values inherent in their worldviews (Brown, 1996, pp. 201-202). Which view is accommodated is largely determined by the disposition of power, yet Checkland maintains power analysis dialogues are sensitive and not suited for the debate; Brown argues that this sensitivity does not allow for a critical examination of whether the discussion is being openly or implicitly constrained by power issues (Brown, 1996, p. 205). Brown suggests that more guidance on how participation is to be achieved in this methodology would be useful to ensure SSM does not default to a way of gathering information in the means-ends methodology (Brown, 1996, p. 207).

Brown's final assessment is on Critical Systems Heuristics (CSH). Brown argues that while CSH "covers both of the key justifications for participation" in both the ethical and moral right for individuals affected by decisions to participate, the CSH model analyzed is incommensurable with its model for structural conflict (Brown, 1996, p. 208). Brown cites a lack of the "education of consciousness" to accompany the paradigm shift where participation is viewed as empowering people to influence the redistribution of resource. That is, CSH does not explicitly address the education of the participants on resource distribution. A dominance of resource distribution focus could lead the process to a means-end discussion focused on improving efficiency and effectiveness instead of enskilling and empowerment (Brown, 1996, pp. 208-209).

The two opposing positions Brown uses in her framework are useful as clarifying concepts associated with participation. As clarifying concepts, they distinguish rational, means-ends approaches with critical approaches rooted in empowerment and moral right. In addition, those who are empowered to participate have the opportunity to shape definition; for this clarifying concept, I draw on Alford and Friedland's work (1992).

Table 60 Clarifying Concepts Associated with the Dimension Participation

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Purpose of Participation (Brown, 1996)	Means-Ends: Participation is a top-down process with short term goals, structured around the problem owner.	Moral right of inclusion: Objective of participation is "enskillling" participants	
Definitions (Alford & Friedland, 1992)	Consensus after competition in intellectual market	Dominant usages	Historically relative

Legitimacy

The concept of legitimacy was discussed in Chapter II. Legitimacy is included as a dimension in the situational context because of its relation to the range of interactions for which the political belief system is applicable. The extent to which private relations are politicized and personal relations are dominated by political criteria shape perceptions of legitimate political identities as opposed to parochial and partisan identities (Verba, 1965, p. 549). Verba (1965) writes, "Norms limiting the degree of politicization of personal relations and enforcing civility in political controversies play a major role in regulating the nature of political interactions. They limit the intensity of political conflict and maintain channels of communication and accommodation among political opponents" (p. 550).

Models of legitimacy that assess the effectiveness of participative discourse as a measure of legitimacy are often rooted in critical theory or democratic beliefs where the authority to establish legitimacy rests with the consent of the people. Alternative models root legitimacy in power and the ability to coerce or demonstrate power over others. Bureaucratic systems where legitimate power allows for the establishment of rules and policies to govern behavior and agendas within enterprises as well as autocratic systems that may extend this power to social behavior are two examples of alternative models.

Autocracies in particular may have their legitimacy accepted by segments of groups while alienating other segments (Burnell, 2006, p. 548). Hence, two clarifying concepts associated with legitimacy are the source of legitimacy and the breadth of the source.

Table 61 Clarifying Concepts Associated with the Dimension Legitimacy

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Who has the power to act (Alford & Friedland, 1992)	Individuals	Elites	Class agents
Truth (Alford & Friedland, 1992)	Consensus on the correspondence of hypothesis and evidence	Established by authoritative procedures	Human activity and experience (praxis)

Fear

A better understanding of the role of fear and emotion in politics, power, and influence will improve the ability to specify limits within which conscious calculations of self-interest are performed. Emotions and enterprises have an interdependent relationship. Over time, behaviors are shaped by the “nature of the social institutions that empower or weaken the influence of individuals with certain inherited ways of making decisions” (Rosen, 2005, p. 2). But emotions also factor into the behavior of groups and enterprises. Those who have the authority to promote and reward tend to preferentially select people who have similar world views, values, and interests and place them in positions of political power. Stephen Rosen describes this dynamic:

...turbulent political environments full of near-term dangers make it easier for people with near-term time horizons to rise to political power. Once in a position of absolute power, such individuals will exist in a social environment in which their individual cognitive profiles will be of considerable political importance, and their individual predisposition to act in ways affected by near-term calculations will be reinforced by the social setting in which they exist. A different political system will select and empower a different kind of person. The institutions associated with oligarchic politics may select for people sensitive to social status and put those people in an environment that tends to focus and magnify their status challenges to each other, reinforcing their predisposition to engage in challenge-response types of status politics. In other group settings, the stress-induced depression experienced by one individual will create behavior that others can observe, and which can trigger fear and depression in them. On the other hand, one can also specify social institutions that will tend to dampen or neutralize the effects of individual cognitive predispositions before they are translated into group behavior.

Checks and balances are meant, among other things, to prevent individual tendencies to “act in the heat of the moment” from becoming actual. So the variations in human nature relevant to cognition will be important only when social conditions reinforce them. (Rosen, 2005, p. 6)

As Rosen described above, fear and the resultant defensive mechanisms can distort what problem is solved when, how, and for what reasons. The correction of these distortions within enterprises is weakest in autocratic structures. Around the leader or ruler, subordinates protect their own positions by filtering information that reflects the emotional biases of their boss. This implicit or explicit filtering becomes a measure of what information is valuable and what behaviors will be rewarded. Katz and Kahn (1966) observe: “The whole institutional environment may become modified to confirm the pathological tendencies of the men on the top” (p. 293). The enterprise may become insensitive to changes in the external environment as false perceptions, fictions, and erroneous beliefs propagate across the organization. The lack of opportunity for criticism, as found in democratic enterprises, may mean the only way to avoid disaster is to replace leadership (Katz & Kahn, 1966, p. 293).

Rosen develops an emotion-based pattern-recognition model based upon empirical evidence provided by studies on the brain and emotions. With an information processing limit around 16-50 bits per second, the brain selectively chooses from long-term memories; the brain creates patterns out of information to enable retrieval by data chunking and unconscious or implicit memory (Rosen, 2005, pp. 36-37). From his analysis he derives the following propositions:

- If decisions are made on the basis of emotion-driven pattern recognition, the decision will be made quickly and early in the process, despite the complexity of the situation and the availability of contradictory analysis and data.
- The decisions will conform to past emotional experience in a straightforward way. Situations that evoke an emotional memory of a negative experience will lead the actor to select away from the policy that was associated with the negative emotional experience. Situations that evoke a positive experience will lead the actor to select toward the policy that was associated with the positive emotional experience.

- Those decisions will resist contradictory data.
- These decisions can be distinguished from those that are delayed and deferred in order to permit the accumulation of data and analysis, and which bear no strong relation to past emotional experience. (Rosen, 2005, p. 55)

As an example, consider the Cuban missile crisis in early 1960s. President Kennedy determined that the hypothetical issue of Soviet missiles in Cuba was intolerable. During the debate about options, records show that despite the cost of nuclear war being very large, there was no discussion of the presence of missiles as nonthreatening or nonmilitary options – an assessment supported by the Secretary of Defense (Rosen, 2005, p. 62). An explanation based on Rosen’s emotion-based pattern-recognition model would indicate that previous negative emotional reactions between the decision maker and stimulus would “predispose the decision maker toward certain broad courses of action such as trust/distrust, cooperate/fight” (Rosen, 2005, p. 63). From 1961 until the Cuban Missile Crisis there were several such incidents between Kennedy and Khrushchev and their staffs that have been reported. First, in Vienna, Kennedy found that he could not exchange ideas with Khrushchev in any meaningful way which may have lead Kennedy to dislike/mistrust/resist Khrushchev (Rosen, 2005, p. 63). Second, in 1961, Khrushchev stated to a member of Kennedy’s cabinet “it’s been a long time since you could spank us like a little boy – now we can swat your ass” followed by comments to Robert Frost that the United States was like an old man who wanted to have sex: “The desire is the same, it’s the performance that’s different” (May & Zelikow, 1997, p. 39; Rosen, 2005, p. 62). Reportedly, Kennedy’s first reaction to the crisis was to angrily say, “He [Khrushchev] can’t do that to *me*”; a response that is consistent with the emotion-based pattern-recognition model (Blight & Welch, 1989, p. 367; Rosen, 2005, p. 63).

This example demonstrates the potential effect of emotions on political behavior. History is rich with examples of political action influenced by emotional responses, yet in Western cultures, analysis of political behavior remains largely based on rational actor models. Increasing our understanding of how emotion influences political behavior will improve the ability to specify limits within which rational actor models are useful.

I described above how autocratic enterprises are especially vulnerable to distortions. Bureaucratic institutions may be less vulnerable because there are more opportunities for checks and balances. There is a constant presence of aspirants for promotion ready to replace officials through legal means, courting favor with those in higher power, out maneuvering, demonstrating better potential for leading or solving persistent or emerging enterprise problems. Fear may manifest in administrative secrecy. Weber (1978b) discusses: “This tendency towards secrecy is in certain administrative fields a consequence of their objective nature: namely, wherever power interests of the given structure of domination *toward the outside* are at stake, whether this be the case of economic competitors of a private enterprise or that of potentially hostile foreign polities in the public field,” though the “office secret,” which Weber states is the invention of bureaucracy, often cannot be justified with purely functional arguments (Weber, 1978b, p. 992). Fear may also manifest in increased lawsuits, investigations, and personnel issues that slow or immobilize the enterprise.

The power of fear and emotion over human behavior is examined in Philip Zimbardo’s *The Lucifer Effect* (TLE) (2008). Zimbardo cites a study on social psychology research that examined over 25,000 studies across 100 years involving 8 million people which supports his claim that “the power of social situations is a reliable and robust effect” (Richard, Bond Jr., & Stokes-Zoota, 2003; Zimbardo, 2008, pp. 322-323). He provides a narrative of his Stanford Prison Experiments followed by an analysis of the social dynamics surrounding Abu Ghraib in 2003. In both cases, the power of situational and systemic forces helped create what he terms “evil” behavior. Zimbardo (2008) defines *evil* as a way of behaving to “harm, abuse, demean, dehumanize, or destroy innocent others – or using one’s authority and systemic power to encourage or permit others to do so on your behalf” (Zimbardo, 2008, p. 5). Zimbardo concludes that evil can be countered by the personal heroic resolve of individuals (2008, p. 488).

Zimbardo (2008) found that:

Situational power is most salient in novel settings, those in which people cannot call on previous guidelines for their new behavioral options. In such situations, the usual reward structures are different and expectations are violated. Under such circumstances, personality variables have little predictive utility because they depend on estimations of imagined future actions based on characteristic past reactions in similar situations – but

rarely in the kind of new situation currently being encountered, say by a new guard or prisoner. (p. 212)

He cautions that in Western nations, personality and positions are overemphasized in explaining behavior while at the same time underestimating situational influences (Zimbardo, 2008, p. 212). Similar findings are found in United States Special Forces training where trainers induce the greatest stress on trainees by creating a lack of unpredictability in their environments; “People fold because they are taken out of their routine” (Rosen, 2005, p. 120). In a 1999 Yale study on Survive, Evade, Resist, and Escape (SERE) program participants sheds some light on this phenomenon. Saliva was collected from participants as they progressed through the program. The researchers found that on average stressors and helplessness lead to radically lower levels of testosterone and elevated levels of cortisol but some participant’s cortisol levels declined more rapidly than others. These individuals produced a greater amount of Neuropeptide-Y (NPY), effectively tranquilizing the amygdale which helps monitor fear and fear-linked reactions (Morgan III, Wang, Mason, et al., 2000; Morgan III, Wang, Southwick, et al., 2000; Rosen, 2005, p. 122). These individuals were better able to handle stress and recuperate faster than those who produced lower levels of NPY (Rosen, 2005, p. 122). Indeed, in military warfare, Sun Tzu’s theory of the indirect approach emphasized the importance of “dislocation” in strategy, that is, “inducing cognitive of physical helplessness and subsequent surrender” (Liddell-Hart, 1967, pp. 339-340; Rosen, 2005, p. 128). The notion of regularity is also emphasized in Scott who describes the analysis of behavioral structure as a focus on “those activities, interactions, and sentiments that exhibit some degree of regularity – the recurrent behavior of a given individual or similarities in the behavior of a class of individuals” (Scott, 2003, p. 19) .

For enterprises under transformation, the status quo is in the process of undergoing significant change - routines are disrupted and the environment becomes less predictable and less stable. These factors contribute to fear and emotion as sources of political behavior. Jennings (1962) expresses two clarifying concepts that are consistent with the works of Rosen (2005) and Zimbardo (2008). The first clarifying concept is ambiguity. Jennings (1962) describes different theoretical perspectives of ambiguity in enterprises. The autocrat may encourage ambiguity in an enterprise as a means to

control; the bureaucrat seeks to instrument away ambiguity with narrow role definitions, processes and rules; the democrat embraces ambiguity as part of the creative empowerment process; and the neurotic tries to find a comprehensive solution that does away with all ambiguity and uncertainty, denying “he is involved in a network of human relationships that require cooperation and teamwork” (Jennings, 1962, p. 261).

Autocrats tend to believe in what Jennings calls self-consultation; it is the concept of relying on his or her judgments because of superior foresight, ability, or adaptability (Jennings, 1962, p. 137). In the extreme view, the individual believes he or she is “in communion with gods”; hence, to have firm decisions poorly received is devastatingly humiliating (Jennings, 1962, p. 144). Humility is a useful clarifying concept for it distinguishes between the type of fear of humility found in autocrats to the humility of deriving power from the people found in democratic or pluralistic theoretical perspectives.

The third clarifying concept is derived from Alford and Friedland (1992) and sheds light on the perceived source of the other two clarifying concepts. That is, whether the humiliation or ambiguity in question is primarily concerned with assumptions, domains, or ideologies.

Table 62 Clarifying Concepts Associated with the Dimension Fear

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Epistemological Argument (Alford & Friedland, 1992)	Criticism of assumptions	Conflict over domain	Struggle over ideology
Ambiguity	Low tolerance for ambiguity	Moderate tolerance for ambiguity	High tolerance for ambiguity
Humiliation	Significant fear of ideas / decisions being poorly received	Moderate fear of ideas / decisions being poorly received	Low fear of ideas / decisions being poorly received

Structural Contexts

Structural contexts are more amenable to scientific (positivist, rational, bureaucratic) analysis. The domain of analysis in this context is closer to reality than systemic contexts, hence the causal effects from instrumentation that affect boundaries, dominance relationships, communications, and geography are better understood. In the

structural context, the domain for the analysis is used to examine the mechanistic rules and processes that determine political boundaries, dominance, and communication relationships, as well as potential implications due to geographical considerations. The structural context is composed of the enterprise attributes that influence what Davis (1949) calls the normative structures of the enterprise:

Always in human society there is what may be called a double reality – on the one hand a normative system embodying what ought to be, and on the other a factual order embodying what is... These two orders cannot be completely identical nor can they be completely disparate (K. Davis, 1949, p. 52; as cited in Scott, 2003, p. 18).

In this context, social structures are defined by role definition and policy which differs from the informal and dynamic social structures found in situational contexts. Hence power flows in this context according to the dominant paradigm that defines rules, processes, and dominance relations. The elements in the structural context illuminate aspects of power important to the research goals and provide a broad framework for domain analysis in this context.

Boundaries

As I described in Chapter I, defining the boundaries and span of the enterprise that is to be transformed is itself a political process. Membership in groups or communities defines privileges, social and economic rights, access, information flow, knowledge and, of course, influence and power. The process of drawing boundaries creates emotional responses that may enhance or challenge ideas of honor and stir deep seated fears. Stone writes, “The most highly contested and passionate political fights are about membership” (Stone, 2002, p. 19). She explains that it is important to distinguish between physical and political membership as well political and cultural communities. In addition to resource access, boundaries define what knowledge is pertinent as well as identifies the people who generate the knowledge (R. L. Flood, Romm, Norma R.A., 1996, pp. 17-18).

But boundary “is an enigmatic and intricate entity. It can be as simple as a line or border or a divider between unites or functions or identities. It can be thought of as a

limit or an edge or a state between quanta of knowledge or people or consciousness” (Lu, et al., 2000, p. 383). Lu, Byrne, and Maani (2002) reviewed the literature on boundaries from multiple disciplines and found rich and varied conceptions of boundary.

Table 63 Conceptualizations of Boundaries (adapted from Lu, et. al., 2000)

Boundary...	Characterization
In Taoism (Fung, 1952)	Boundary as a dynamic interlocking intermediary for Yin and Yang. When an extreme is to be reached, reversal takes place; a duality that endows movement at the boundary with a dynamic and dialectic nature.
In Open Systems (von Bertalanffy, 1950) (Katz & Kahn, 1966)	Boundary as a cross-system interface and frontier across which the enclosed system acquires resources crucial for its survival. Boundaries should remain permeable in order to prevent an increase in system entropy. Boundaries act as both barriers and facilitators for acceptance of organizational norms, values, subculture, and expectations.
In System Dynamics (Forrester, 1968) (Senge, 2006)	Boundary as the closure of a purposeful system. Should have minimal components linked with quantified causality. Context is system modeling. For qualitative system dynamics Senge uses mental models in dynamic and dialectical format. Focus is on tensions and paradoxes at the joint point of reinforcing loop and balancing loop, virtuous circle and vicious circle.
Of a Critical and Dialectical Nature (Churchman, 1968) (Churchman, 1979) (Ulrich, 1994)	Boundary as the closure of a purposeful system. Boundaries as social constructs that define what knowledge to be considered, who generates knowledge, who participates in decisions, and who has a stake in the result. Boundaries are discovered through a dialectic process through the endless debate between the systems approach and its enemies. The whole cannot be known but must be considered. Ulrich developed a list of 12 questions to define the system boundary.
Originated from Difference (Bateson, 1972) (Cooper, 1990) (Derrida, 1982)	Boundary as a being itself and an interlocking intermediary for networking. Infinite differences surround objects; difference is dimensionless. Derrida’s “difference” combines “to differ” in space with “to defer” in time as the possibility of conceptuality - a paradoxical presence.
In Viable Systems Model (Beer, 1981)	Boundary as a cross-system interface and frontier across which the enclosed system acquires resources crucial for its survival. Boundaries maintain the balance between autonomy and control. The recursive phenomenon in VSM has a nature analogous to the Tai-Chi of Taoism.
In Soft Systems Methodology (Checkland, 2004)	Boundary as the area “within which the decision-taking process of the system as power to make things happen, or prevent them from happening” (p. 312). Boundaries may be difficult to define since they involve human activity systems. Stage 5 brings multiple conceptual models into the real world for debate. Assessing whether gaps between the systemic model and reality is crucial.
Strategies (Scott, 2003)	Boundary as a cross-system interface and frontier across which the enclosed system acquires resources crucial for its survival. Buffering and spanning are two boundary strategies. Buffering: demarcational and parametric to enhance the possibility of rational action. Boundaries in this sense serve to seal off or cushion the “technical core” from disruption through technology coding; smoothing variability in inputs, stockpiling, scale adjusting, and forecasting variations and uncertainties.

Table 63 Continued

Boundary...	Characterization
Primary Role: from System Closure to System Transforming (Cooper, 1990)	Boundary as an intermediary for system transforming and interlocking. Binary relationships separate and join, actively differentiate, and are secondary in theoretical analysis to social action.
Without Boundary (Boundaryless) (Hirschhorn & Gilmore, 1992)	"Once traditional boundaries of hierarchy, function and geography disappear a new set of boundaries becomes important" and "these new boundaries are more psychological than organizational" (p105). In this case the focus is on boundaries of authority; task; politics; and identity. These tensions are: "(1) lead, but remain open to criticism; (2) specialize, but understand others' jobs; (3) defend one's interest without undermining the organization; (4) feel pride without devaluing others" (Lu, et al., 2000, p. 387)

As with Axiom 4, the definition of boundary cannot be understood independently of the context in which it is used. The authors argue that the essential quality of the whole is found through contrasting and comparing concepts of boundaries within the context they are used. Lu et al. (2000) write, "The conceptual whole is gained in the exercise of the crossing, setting, buffering, spanning, and dissolving of both mental and physical boundaries" (p. 388). In many ways their recommendation is similar to Kiefer's recommended approach to historic analysis and the dialectic analysis of perspectives this research advocates.

In addition to the different conceptualizations of boundary above, theoretical perspectives will be distinguished by the clarifying concepts below.

Table 64 Clarifying Concepts Associated with the Dimension Boundaries

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Organizational level of analysis (Alford & Friedland, 1992)	Mediating associations	Dominant and subordinate organizations	Agent of class interest
Internal Structures (Alford & Friedland, 1992)	Differentiated	Complex	Contradictory

Dominance

To Weber, "power" (*macht*) is "the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which this probability rests" and "domination" (*herrschaft*) is "the probability that a command which is given specific content will be obeyed by a given

group of persons” (Weber, 1978a, p. 53). Closely related to domination is the concept of “discipline” as “the probability that by virtue of habituation a command will receive prompt and automatic obedience in stereotyped forms, on the part of a given group of persons” (Weber, 1978a, p. 53). A similar conception of dominance can be found in authoritarian systems.

Charismatically lead authoritarian systems are characterized by hierarchical structures that are close and dense resulting in deliberate restriction and control of attachment relationships. Another conception of dominance is found in critical theory research. In this research approach, dominance centers around two theses that are class-oriented. One thesis is that there is an unnecessary emphasis on ideology in conceptions of hegemony and that economic compulsion, not ideological conversion, is a better explanation of the relative passivity of the working class (Abercrombie, Hill, & Turner, 1980; Clegg, 1989, p. 15; Rubinstein, 1982, p. 188). The second thesis suggests that “rather than thinking of either ideology or hegemony as a state of mind, one would better regard it as a set of practices, primarily of a discursive provenance which seeks to foreclose the indefinite possibilities of signifying elements and their relations, in determinant ways” (Clegg, 1989, p. 15; Laclau & Mouffe, 1985).

Table 65 Clarifying Concepts Associated with the Dimension Dominance

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Social Stability (Alford & Friedland, 1992)	Integration	Control	Repression
Key level of power (Alford & Friedland, 1992)	Individual influence	Organizational domination	Societal hegemony
Patterns of social relations (Alford & Friedland, 1992)	Roles	Positions	Locations
Inequality (Alford & Friedland, 1992)	Stratification	Hierarchy	Exploitation
Who rules (Alford & Friedland, 1992)	Governing coalitions	Political elites	Power bloc
Result of action (Alford & Friedland, 1992)	Integration	Control	Rule
Power relations (Alford & Friedland, 1992)	Coalitions and contracts	Hierarchy and force	Exploitation and alienation

Communication

In Chapter II, I reviewed the literature on politics and communication and found a broad number of areas of active research. Many of these areas apply to enterprise transformations. As Pye (1963) wrote:

Communications is the web of human society. The structure of a communications system with its more or less well-defined channels is in a sense the skeleton of the social body which envelopes it. The content of communications is of course the very substance of human intercourse. The flow of communications determines the direction and pace of dynamic social development. Hence it is possible to analyze all social processes in terms of the structure, content, and flow of communications (p. 9).

The study of communications has provided a deeper understanding of some of the problems across a variety of enterprises including defense, nation building, and business (Kahn, 1960; Pye, 1963; Schelling, 1960; Snyder, 1961). Indeed strategic communications has become a core mission within national defense, diplomacy, politics, and business. According to Pye (1963), “The communications process established a common framework of considerations as people strive to see into the future” (p. 7). Politics and future visions are related to political power through strategic alliances which are gained in part through the anticipation of future favorable conditions. The illusion of control of the future is promoted through the communications process. Alternatively, communications can play a conspicuous part in control over populations. Extreme examples of this type of control include Communist China, where the belief “thought determines action” required political and ideological thought before anything else and the Soviet Union, where “in the Soviet system, there is not a theory of state and a theory of communication; there is only one theory” (Schramm, 1957, p. 81; Yu, 1963, pp. 259, 261).

Communication introduces a peculiar notion of scale when it comes to politics. Within a theater of defense operations, tactical actions taken on the field can have broad and significant effects (e.g., casualties, Abu Ghraib). Even something as seemingly benign as a cartoon can incite riots and flame emotions across the world, as in the Danish cartoon controversy. But without a network capable of magnifying the words and

choices of individuals there could be no politics capable of spanning outside local contexts (Pye, 1963, p. 6)

As a function, communication both cuts across and provides a link between systemic, situational, and structural contexts. The pattern of diffusion across an enterprise includes the variables of (1) the manner in which new concepts were communicated, (2) the particular agents involved in the communication, (3) the intensity and duration of communications, and (4) the reaction to communications (Pye, 1963, p. 19).

As I mentioned in Chapter I and II, there is a distinctive form of rationality in Habermas' theory of communicative action which "suggests that the theory could be developed through explicating the general and formal conditions of validity in knowing and reaching understanding through language" (Bohman, 2005, p. 1). It is this narrow view of critical theory that is primarily found in the engineering management and systems engineering disciplines. Distinguishing criteria needs to indicate whether the perspective promotes the type of legitimizing participation that Habermas (1990) promotes, as opposed to other intentions such as surveillance which occurs in many forms including routinization, moral endorsement, output, efficiency, mechanization, legislation, and performance. In some of the literature mechanisms that inscribe and normalize individuals and groups fall under the term *disciplinary practices* (Clegg, 1989, p. 191; Foucault, 1977; Weber, 1978b).

According to Katz and Kahn (1966), "It is a common assumption that many of our problems, individual and social, are the result of inadequate and faulty communication" (p. 224). Knowledge management and similar initiatives have addressed many of the structural issues associated with communication in enterprises. Yet politics remains largely unaddressed (or off the table for discussion) despite the fact that communications can significantly shape political behavior in enterprises. As an enterprise experiences transformational change, setting new precedents and experiencing emergent political behaviors, communication designs that are not sensitive to political contexts can hinder and obscure critical issues that need debate and decision.

Communication processes within an enterprise can be described by vertical downward, vertical upward, and horizontal communications. The informal and formal networks can be characterized by (Katz & Kahn, 1966, p. 235):

- (1) The size of the loop, the amount of organizational space covered by given types of information,
- (2) The nature of the circuit, whether a simple repetitive pattern or a chain modification type,
- (3) The open or closed character of the circuit,
- (4) The efficiency of the circuit for its task,
- (5) The fit between the circuit and the systemic function it serves.

These design characteristics are too specific for the theoretical framework developed in this research. I am not concerned with the specific communications architectures, but the ideology behind those who are stakeholders in what will be created and institutionalized. Hence, the clarifying concept chosen reflects the three possible purposes of institutions for which communications will be designed, both intentionally and unintentionally, to support.

Table 66 Clarifying Concepts Associated with the Dimension Communication

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Institutions (Alford & Friedland, 1992)	Socialize	Constrain	Control

Geography

For people who see the state as central to power and politics, access and control of territory underlies most conflicts of interests. Even terrorist groups want to establish territory and legitimate governance. To others, the state is in decline as both business enterprises and international organizations gain dominance through reach and volume across territories. I will place these distinguishing criteria (clarifying concepts) and others described in this section under the dimension geography; central to this dimension is the globalization debate. The globalization debate, as I will describe here, will encompass the issues in geography relevant to my research.

David Held, Anthony McGrew, David Goldblatt, and Jonathan Perraton, in their book *Global Transformations: Politics, Economics and Culture* developed “a distinctive account of globalization which is both historically grounded and informed by a rigorous analytical framework” to address the fact that despite the vast and expanding literature on globalization, there was “no cogent theory of globalization nor even a systematic analysis of its primary features” (1999, p. 1). They develop three theoretical perspectives: the hyperglobalizers, the skeptics, and the transformationalist, that represent the major positions in the globalization debate.

The authors provide an initial conceptualization of globalization “as the widening, deepening and speeding up of worldwide interconnectedness in all aspects of contemporary social life, from the cultural to the criminal, the financial to the spiritual”; globalization is a process or set of processes as opposed to a singular condition (D. Held, et al., 1999, pp. 2, 27). The principle issues that are the major sources of contention among the theoretical perspectives are conceptualization, causation, periodization, impacts, and the trajectories of globalizations.

There are three aspects of globalization the authors highlight that are relevant to the dimension of geography, structural contexts, and my research questions. First, globalization is concerned with evolving and emerging structures and networks between and involving states, communities, multi-national corporations, non-governmental organizations, and international institutions. Second, globalization cuts across “political frontiers” and is “associated with both the deterritorialization and reterritorialization of socio-economic and political space” (D. Held, et al., 1999, pp. 27-28). Finally, globalization is concerned with “the expanding scale on which power is organized and exercised, that is, the extensive spatial reach of networks and circuits of power” (D. Held, et al., 1999). The authors provide a historically validated, extensively researched work that provides both theory and validation behind the clarifying concepts below.

Table 67 Clarifying Concepts Associated with the Dimension Geography

Clarifying Concepts	Definition 1	Definition 2	Definition 3
Globalization Features (D. Held, et al., 1999)	Global capitalism, governance, civil society	World less interdependent than 1890s	Intensive and extensive globalization
Driving forces (D. Held, et al., 1999)	Capitalism and technology	States and markets	Combined forces of modernity
Pattern of stratification (D. Held, et al., 1999)	Erosion of old hierarchies	Increased marginalization of South	New architecture of world order
Conceptualization of Globalization (D. Held, et al., 1999)	Reordering of the framework for human action	Internationalization and regionalization	Reordering of interregional relations and action at a distance

Summary: Systemic, Situational, and Structural Domain Analysis

Systemic, situational, and structural contexts are in a constant state of dynamic tension that is difficult to predict, let alone analyze for results that are useful to decision-makers, yet few would argue that an individual who has a reasonable grasp of these contexts stands at an advantage, in terms of politics, over those who favor a less holistic approach. There is a semblance of order in this complexity used to help create strategic alliances to shape systemic, situational, and structural arrangements. Scott (2003) remarks, "Every day hundreds or thousands of persons in organizations perform millions of individual acts, yet the outcome is not bedlam, not total confusion or chaos, but a reasonable approximation of order. This remarkable achievement merits our attention" (p. 20). In enterprise transformation problems, Scott's observations may be less obvious as the introduction of new concepts tends to create more friction and uncooperative behavior than found in more static enterprises, but for those who work to understand the patterns and constellations of interactions, opportunities for strategic alliances and the shaping of contexts will present themselves.

APPENDIX D: CODING THE CLARIFYING CONCEPTS

The clarifying concepts derived in this chapter are coded in order to categorize the literature on autocratic, bureaucratic, pluralistic, and cognitive perspectives from the primary text. The coding scheme will allow for consistent and repeatable coding results from researchers with similar backgrounds. In Chapter V, I demonstrate how this coding scheme is used to construct other instances of paradigmatic models, creating a tailored theoretical framework that is constantly evolving with new data.

Table 68 Coding Reference for Clarifying Concepts

Dimension	Clarifying Concept	Code	Description
World View	Theory-Method Relations	W ₁₀₀₀₀₀₀₀	Puzzle
World View	Theory-Method Relations	W ₂₀₀₀₀₀₀₀	Problem
World View	Theory-Method Relations	W ₃₀₀₀₀₀₀₀	Praxis
World View	Theory-Reality Relations	W ₀₁₀₀₀₀₀₀	Theory of a phenomena
World View	Theory-Reality Relations	W ₀₂₀₀₀₀₀₀	Analytic framework of a problem
World View	Theory-Reality Relations	W ₀₃₀₀₀₀₀₀	Ideology of a class
World View	Unresolved Issue	W ₀₀₁₀₀₀₀₀	Paradox
World View	Unresolved Issue	W ₀₀₂₀₀₀₀₀	Dilemma
World View	Unresolved Issue	W ₀₀₃₀₀₀₀₀	Contradiction
World View	Ontology	W ₀₀₀₁₀₀₀₀	Naïve realism
World View	Ontology	W ₀₀₀₂₀₀₀₀	Critical realism
World View	Ontology	W ₀₀₀₃₀₀₀₀	Historical Realism
World View	Ontology	W ₀₀₀₄₀₀₀₀	Relativism
World View	Epistemology	W ₀₀₀₀₁₀₀₀	Findings true
World View	Epistemology	W ₀₀₀₀₂₀₀₀	Findings probably true
World View	Epistemology	W ₀₀₀₀₃₀₀₀	Value-mediated findings
World View	Epistemology	W ₀₀₀₀₄₀₀₀	Created findings
World View	Nature of Knowledge	W ₀₀₀₀₀₁₀₀	Verified hypothesis established as facts or laws
World View	Nature of Knowledge	W ₀₀₀₀₀₂₀₀	Non-falsified hypotheses that are probably facts or laws
World View	Nature of Knowledge	W ₀₀₀₀₀₃₀₀	Structural / historical insights
World View	Nature of Knowledge	W ₀₀₀₀₀₄₀₀	Reconstructions coalescing around consensus
World View	Image of General Change	W ₀₀₀₀₀₀₁₀	Evolution of systems
World View	Image of General Change	W ₀₀₀₀₀₀₂₀	Manipulation of structures
World View	Image of General Change	W ₀₀₀₀₀₀₃₀	Transformations of wholes
Values	Acceptance of Authority	V ₁₀₀₀₀	High acceptance of authority in value statements
Values	Acceptance of Authority	V ₂₀₀₀₀	Moderate acceptance of authority in value statements
Values	Acceptance of Authority	V ₃₀₀₀₀	Low acceptance of authority in value statements

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Values	Need-determined expression over value-determined expression	V ₀₁₀₀₀	High agreement with need-determined value statements such as 'the only values are those of the moment' as opposed to value-determined statements such as 'resist temptation'
Values	Need determined expression over value-determined expression	V ₀₂₀₀₀	Moderate agreement with need-determined value statements such as 'the only values are those of the moment' as opposed to value-determined statements such as 'resist temptation'
Values	Need-determined expression over value-determined expression	V ₀₃₀₀₀	Low agreement with need-determined value statements such as 'the only values are those of the moment' as opposed to value-determined statements such as 'resist temptation'
Values	Egalitarianism	V ₀₀₁₀₀	High agreement with value statements favoring egalitarianism
Values	Egalitarianism	V ₀₀₂₀₀	Moderate agreement with value statements favoring egalitarianism
Values	Egalitarianism	V ₀₀₃₀₀	Low agreement with value statements favoring egalitarianism
Values	Individualism	V ₀₀₀₁₀	High agreement with value statements favoring individualism
Values	Individualism	V ₀₀₀₂₀	Moderate agreement with value statements favoring individualism
Values	Individualism	V ₀₀₀₃₀	Low agreement with value statements favoring individualism
Values	Normal Functioning Society	V ₀₀₀₀₁	Integration and consensus
Values	Normal Functioning Society	V ₀₀₀₀₂	Rationalization and order
Values	Normal Functioning Society	V ₀₀₀₀₃	Hegemony and accumulation
Interests	When Interests are Shared	I ₁₀	Cooperation
Interests	When Interests are Shared	I ₂₀	Conformity
Interests	When Interests are Shared	I ₃₀	Solidarity
Interests	When Interests are not Shared	I ₀₁	Competition
Interests	When Interests are not Shared	I ₀₂	Conflict
Interests	When Interests are not Shared	I ₀₃	Struggle
Historic Narratives	Source of Change	H ₁₀₀₀₀₀₀	Disorganization
Historic Narrative	Source of Change	H ₂₀₀₀₀₀₀	Rebellion
Historic Narrative	Source of Change	H ₃₀₀₀₀₀₀	Class struggle
Historic Narrative	Source of Change	H ₄₀₀₀₀₀₀	Tensions
Historic Narrative	Source of Change	H ₅₀₀₀₀₀₀	Conflicts
Historic Narrative	Source of Change	H ₆₀₀₀₀₀₀	Contradictions
Historic Narrative	Process	H ₀₁₀₀₀₀₀	Institutionalization (political development)

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Historic Narrative	Process	H ₀₂₀₀₀₀	Bureaucratization (rationalization)
Historic Narrative	Process	H ₀₃₀₀₀₀	Socialization (regulation of contradictions)
Historic Narrative	The Whole	H ₀₀₁₀₀₀	An aggregate of interdependent but autonomous parts
Historic Narrative	The Whole	H ₀₀₂₀₀₀	A structure with dominant elements
Historic Narrative	The Whole	H ₀₀₃₀₀₀	A totality determining internal relations
Historic Narrative	External System	H ₀₀₀₁₀₀	Environmental factors
Historic Narrative	External System	H ₀₀₀₂₀₀	External constraints
Historic Narrative	External System	H ₀₀₀₃₀₀	Totality of relations
Historic Narrative	Causation	H ₀₀₀₀₁₀₀	Interdependent influence of multiple factors
Historic Narrative	Causation	H ₀₀₀₀₂₀₀	Dominance of forces in structures
Historic Narrative	Causation	H ₀₀₀₀₃₀₀	Hegemony of imperatives
Historic Narrative	Empirical Reference	H ₀₀₀₀₀₁₀	Empirical indicator
Historic Narrative	Empirical Reference	H ₀₀₀₀₀₂₀	Causal force
Historic Narrative	Empirical Reference	H ₀₀₀₀₀₃₀	Historical manifestation
Historic Narrative	Human Nature	H ₀₀₀₀₀₀₁	Constant
Historic Narrative	Human Nature	H ₀₀₀₀₀₀₂	Changing
Trust	Positive Expectation Regarding the Conduct of Others	T ₁₀₀	Low degree of instrumented "checks" on behaviors
Trust	Positive Expectation Regarding the Conduct of Others	T ₂₀₀	Moderate degree of instrumented "checks" on behaviors
Trust	Positive Expectation Regarding the Conduct of Others	T ₃₀₀	High degree of instrumented "checks" on behaviors
Trust	Extent to which Unconditional Trust is Fostered	T ₀₁₀	High degree of the following: broad role definitions, free exchange of knowledge of information, and subjugation of personal needs for greater common good (voluntary)
Trust	Extent to which Unconditional Trust is Fostered	T ₀₂₀	Moderate degree of the following: broad role definitions, free exchange of knowledge of information, and subjugation of personal needs for greater common good (voluntary)
Trust	Extent to which Unconditional Trust is Fostered	T ₀₃₀	Low degree of the following: broad role definitions, free exchange of knowledge of information, and subjugation of personal needs for greater common good (voluntary)

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Trust	Extent to which Enterprise Members are willing to be Vulnerable to Others	T ₀₀₁	High severity of punishment for conflict with the dominant theoretical perspective
Trust	Extent to which Enterprise Members are willing to be Vulnerable to Others	T ₀₀₂	Moderate severity of punishment for conflict with the dominant theoretical perspective
Trust	Extent to which Enterprise Members are willing to be Vulnerable to Others	T ₀₀₃	Low severity of punishment for conflict with the dominant theoretical perspective
Participation	Purpose of Participation	P ₁₀	Means-ends: participation is a top-down process with short term goals, structured around the problem owner
Participation	Purpose of Participation	P ₂₀	Moral right of inclusion: Objective of participation is "enskillng" participants
Participation	Definitions	P ₀₁	Consensus after competition in intellectual market
Participation	Definitions	P ₀₂	Dominant usages
Participation	Definitions	P ₀₃	Historically relative
Legitimacy	Who has the Power to Act	L ₁₀	Individuals
Legitimacy	Who has the Power to Act	L ₂₀	Elites
Legitimacy	Who has the Power to Act	L ₃₀	Class agents
Legitimacy	Truth	L ₀₁	Consensus on the correspondence of hypothesis and evidence
Legitimacy	Truth	L ₀₂	Established by authoritative procedures
Legitimacy	Truth	L ₀₃	Human activity and experience (praxis)
Fear	Epistemological Argument	F ₁₀₀	Criticism of assumptions
Fear	Epistemological Argument	F ₂₀₀	Conflict over domain
Fear	Epistemological Argument	F ₃₀₀	Struggle over ideology
Fear	Ambiguity	F ₀₁₀	Low tolerance for ambiguity
Fear	Ambiguity	F ₀₂₀	Moderate tolerance for ambiguity
Fear	Ambiguity	F ₀₃₀	High tolerance for ambiguity
Fear	Humiliation	F ₀₀₁	Significant fear of ideas / decisions being poorly received
Fear	Humiliation	F ₀₀₂	Moderate fear of ideas/ decisions being poorly received
Fear	Humiliation	F ₀₀₃	Low fear of ideas / decisions being poorly received
Boundaries	Described	B ₁₀₀	In Taoism: Boundary as a dynamic interlocking intermediary for Yin and Yang. When an extreme is to be reached, reversal takes place; a duality that endows movement at the boundary with a dynamic and dialectic nature.

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Boundaries	Described	B ₂₀₀	<p>In Open Systems: Boundary as a cross-system interface and frontier across which the enclosed system acquires resources crucial for its survival. Boundaries should remain permeable in order to prevent an increase in system entropy. Boundaries act as both barriers and facilitators for acceptance of organizational norms, values, subculture, and expectations.</p>
Boundaries	Described	B ₃₀₀	<p>In System Dynamics: Boundary as the closure of a purposeful system. Should have minimal components linked with quantified causality. Context is system modeling. For qualitative system dynamics Senge uses mental models in dynamic and dialectical format. Focus is on tensions and paradoxes at the joint point of reinforcing loop and balancing loop, virtuous circle and vicious circle.</p>
Boundaries	Described	B ₄₀₀	<p>Of a Critical and Dialectical Nature: Boundary as the closure of a purposeful system. Boundaries as social constructs that define what knowledge to be considered, who generates knowledge, who participates in decisions, and who has a stake in the result. Boundaries are discovered through a dialectic process through the endless debate between the systems approach and its enemies. The whole cannot be known but must be considered. Ulrich developed a list of 12 questions to define the system boundary.</p>
Boundaries	Described	B ₅₀₀	<p>Originated from Difference: Boundary as a being itself and an interlocking intermediary for networking. Infinite differences surround objects; difference is dimensionless. Derrida's "difference" combines "to differ" in space with "to defer" in time as the possibility of conceptuality; a paradoxical presence.</p>

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Boundaries	Described	B ₆₀₀	Viable Systems Model: Boundary as a cross-system interface and frontier across which the enclosed system acquires resources crucial for its survival. Boundaries maintain the balance between autonomy and control. The recursive phenomenon in VSM has a nature analogous to the Tai-Chi of Taoism.
Boundaries	Described	B ₇₀₀	Soft-Systems Methodology: Boundary as the area “within which the decision-taking process of the system as power to make things happen, or prevent them from happening” (p. 312). Boundaries may be difficult to define since they involve human activity systems. Stage 5 brings multiple conceptual models into the real world for debate. Assessing whether gaps between the systemic model and reality is crucial.
Boundaries	Described	B ₈₀₀	Strategies: Boundary as a cross-system interface and frontier across which the enclosed system acquires resources crucial for its survival. Buffering and spanning are two boundary strategies. Buffering: demarcational and parametric to enhance the possibility of rational action. Boundaries in this sense serve to seal off or cushion the “technical core” from disruption through technology coding, smoothing variability in inputs, stockpiling, scale adjusting, and forecasting variations and uncertainties.
Boundaries	Described	B ₉₀₀	In chaos theory: Boundaries, like fractals, have stability and instability intertwined; boundary behavior is unpredictable. Small changes can have large effects. Mechanisms not well understood.

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Boundaries	Described	B _{a00}	Primary role: from system closer to system transforming. Boundary as an intermediary for system transforming and interlocking. Binary relationships separate and join, actively differentiate, and are secondary in theoretical analysis to social action.
Boundaries	Described	B _{b00}	Without Boundary: "Once traditional boundaries of hierarchy, function and geography disappear a new set of boundaries becomes important" and "these new boundaries are more psychological than organizational" (p105). In this case the focus is on boundaries of authority, task, politics, and identity. These tensions are: "(1) lead, but remain open to criticism; (2) specialize, but understand others' jobs; (3) defend one's interest without undermining the organization; (4) feel pride without devaluing others" (Lu, et al., 2000, p. 387)
Boundaries	Organizational Level of Analysis	B ₀₁₀	Mediating associations
Boundaries	Organizational Level of Analysis	B ₀₂₀	Dominant and subordinate organizations
Boundaries	Organizational Level of Analysis	B ₀₃₀	Agent of class interest
Boundaries	Internal Structures	B ₀₀₁	Differentiated
Boundaries	Internal Structures	B ₀₀₂	Complex
Boundaries	Internal Structures	B ₀₀₃	Contradictory
Dominance	Social Stability	D ₁₀₀₀₀₀₀	Integration
Dominance	Social Stability	D ₂₀₀₀₀₀₀	Control
Dominance	Social Stability	D ₃₀₀₀₀₀₀	Repression
Dominance	Key Level of Power	D ₀₁₀₀₀₀₀	Individual Influence
Dominance	Key Level of Power	D ₀₂₀₀₀₀₀	Organizational Domination
Dominance	Key Level of Power	D ₀₃₀₀₀₀₀	Societal Hegemony
Dominance	Patterns of Social Relations	D ₀₀₁₀₀₀₀	Roles
Dominance	Patterns of Social Relations	D ₀₀₂₀₀₀₀	Positions
Dominance	Patterns of Social Relations	D ₀₀₃₀₀₀₀	Locations
Dominance	Inequality	D ₀₀₀₁₀₀₀	Stratification
Dominance	Inequality	D ₀₀₀₂₀₀₀	Hierarchy
Dominance	Inequality	D ₀₀₀₃₀₀₀	Exploitation
Dominance	Who Rules	D ₀₀₀₀₁₀₀	Governing coalitions
Dominance	Who Rules	D ₀₀₀₀₂₀₀	Political elites
Dominance	Who Rules	D ₀₀₀₀₃₀₀	Power bloc
Dominance	Result of Action	D ₀₀₀₀₀₁₀	Integration

Table 69 Continued

Dimension	Clarifying Concept	Code	Description
Dominance	Result of Action	D ₀₀₀₀₀₂₀	Control
Dominance	Result of Action	D ₀₀₀₀₀₃₀	Rule
Dominance	Power Relations	D ₀₀₀₀₀₀₁	Coalitions and contracts
Dominance	Power Relations	D ₀₀₀₀₀₀₂	Hierarchy and force
Dominance	Power Relations	D ₀₀₀₀₀₀₃	Exploitation and alienation
Communication	Institutions	C ₁	Socialize
Communication	Institutions	C ₂	Constrain
Communication	Institutions	C ₃	Control
Geography	Dominant features of globalization	G ₁₀₀₀	Global capitalism, global governance, global civil society
Geography	Dominant features of globalization	G ₂₀₀₀	World less interdependent than in 1890s
Geography	Dominant features of globalization	G ₃₀₀₀	Intensive and extensive globalization
Geography	Driving forces of globalization	G ₀₁₀₀	Capitalism and technology
Geography	Driving forces of globalization	G ₀₂₀₀	States and markets
Geography	Driving forces of globalization	G ₀₃₀₀	Combined forces of modernity
Geography	Pattern of stratification	G ₀₀₁₀	Erosion of old hierarchies
Geography	Pattern of stratification	G ₀₀₂₀	Increased marginalization of South
Geography	Pattern of stratification	G ₀₀₃₀	New architecture of world order
Geography	Conceptualization of globalization	G ₀₀₀₁	As a reordering of the framework of human action
Geography	Conceptualization of globalization	G ₀₀₀₂	As internationalization and regionalization
Geography	Conceptualization of globalization	G ₀₀₀₃	As the reordering of interregional relations and actions at a distance

APPENDIX E: AUTOCRATIC, BUREAUCRATIC, PLURALISTIC, AND COGNITIVE PERSPECTIVES

Overview

Each theoretical perspective presented here has its own conception of politics. As I mentioned in Chapter I, in the pluralist perspective “politics” occurs when individuals and groups use their resources in attempts to influence the outcomes of disagreements over alternative possible decisions (Alford & Friedland, 1992, p. 408). Pluralist politics emphasize communication, broad participation, and transparency in influences as strategic alliances are formed to develop a firm foundation of trust in the enterprise. This perspective is often found in systems literature where politics is often “managed” through consensus building, process, and participatory activities. Pluralist perspectives tend to emphasize consensus and an evolutionary path of progress. The politics of personal and family relationships are central to traditional autocratic perspectives (Kirkpatrick, 1982, p. 32). The strength of personal bonds and family histories tend to blur social and work boundaries. Organized conflict characterizes “politics” in the bureaucratic perspective. In this case, relatively stable coalitions use “politics” as a strategy to compete for more power (Alford & Friedland, 1992, p. 408). In all three of these perspectives, politics is a strategy deployed to produce power, and power is about influence (Handy, 1993, p. 124). In the cognitive perspective, politics becomes significant when there is fear that there are threats to honor, interests, or values. In this view politics may involve the emancipation of classes of individuals in response to perceived exploitive power, manifest in alliances from which emerge religious or ideological movements, or be concerned with invented or situated alliances of institutions that cultivate a cultural ethos (Gouldner, 1976; Kirkpatrick, 1982; Marx, 1978a; Rosen, 2005). While each perspective has its own conception of politics, they overlap as strategies are developed and executed. I explore these conceptions in more detail in the following paragraphs.

In each section below discuss “perspectives.” The plural of perspective is used because there are variations within the literature on what counts as a single theoretical perspective. That is, a single concept may have several different descriptions (variations in the twelve dimensions) that are labeled “bureaucratic perspective.” Some literature

frames bureaucracy as a special variation of autocracy that can “precede or follow or even be concurrent with autocracy” (Fu, 1993; Jennings, 1962, pp. 164-165). There are similarities that group the different descriptions together, but the imprecision of language and the changing meaning of concepts over time create differences. In Chapter V, I suggested a novel approach using rough set theory to address this imprecision, but for the main purpose of the research, an approximate one-to-one mapping will suffice. The primary sources identified in the literature review are described in Table 69 below. Secondary sources derived from the literature review are used to illustrate specific points and issue within the literature on a given theoretical perspective, but the articulation of concepts within each theoretical perspective in this chapter will be based upon the primary sources listed below.

Table 69 Primary Sources for Theoretical Perspectives Identified in the Literature Review

Theoretical Perspective	Primary Sources
Autocratic	(Bendix, 2001; Fu, 1993; Jennings, 1962; Kirkpatrick, 1982; Skinner, 1978a, 1978b)
Bureaucratic	(Alford & Friedland, 1992; Allison & Zelikow, 1999; Bendix, 2001; Jennings, 1962; Katz & Kahn, 1966; Mitroff & Linstone, 1993; Skinner, 1978a, 1978b; Weber, 1978b)
Pluralistic	(Alford & Friedland, 1992; Habermas, 1990; Jennings, 1962; Stone, 2002; Weick, 1995)
Cognitive	(Alford & Friedland, 1992; Cottam & Shih, 1992; Gouldner, 1976; Katz & Kahn, 1966; Lakoff, 2008; Marx, 1978a; Smail, 2008; Weick, 1995)

Autocratic Theoretical Perspectives

As a political concept, there is no “true meaning” of the term *autocracy*. While the Oxford English Dictionary defines it as “absolute government by one person,” the literature takes a much looser interpretation (Oxford, 1989). Etymological accounts trace the term back to the ancient Greek philosophers; David Hume noted that at minimum, autocracies needed the support of the Praetorian Guard (Burnell, 2006, p. 546). What I will describe in this section are general characteristics of an autocratic perspective to support the instance of the paradigmatic model. As such, I will adapt the definition used by Burnell (2006); autocracies can be understood as regimes where competitive political participation is sharply restricted or suppressed and the power holders reserve a right to determine the rights and freedoms everyone else enjoys, while largely free from

institutional constraints themselves. This operating definition is reinforced from the primary texts for this section: *Autocratic Tradition and Chinese Politics*, by Zhengyuan Fu (1993) and *Dictatorships and Double Standards* by the late Ambassador Jeane Kirkpatrick (1982). Secondary sources, such as Burnell (2006), are used to amplify points but are consistent with the positions and explanations in the primary texts.

Politics in autocratic perspectives center on the elites and their relationships to elites outside the enterprise (Kirkpatrick, 1982). Autocratic politics can take many forms found in bureaucratic perspectives. Coalition politics are more prevalent within bureaucratic enterprises when compared to autocratic enterprises where the biases of elite leaders, family, and friend relationships permeate the enterprise. Unlike politics in bureaucratic perspectives where the legitimacy of authority can be a significant factor in causes of political behavior, politics in autocratic perspectives achieves legitimacy through the acknowledgement of personal bonds and historic relationships (Kirkpatrick, 1982). The politics outside this circle of influence can become radicalized because in autocratic circles the roots of power and authority are deep through established relationships. Hierarchy and privilege, order, and a passive concern for those less fortunate often characterize autocratic enterprises; such perspectives are offensive to pluralistic perspectives that promote egalitarianism, liberty, and activity in the cause of democracy (Kirkpatrick, 1982, p. 45).

In Jennings's conception of an autocratic theoretical perspective, the essential mode of response is action – “The autocrat has a strong desire to thrust himself into the breach and to overwhelm by responding” (1962, p. 83). The autocrat has a strong hierarchical orientation, pushing hard those who are beneath him while exhibiting high degrees of submissiveness to those above him. This orientation is often called “bicycle psychology” in the psychology literature because of the position of the rider who is bent over (submissive above) with feet trampling down (dominating) (Jennings, 1962, p. 87). A belief in superior abilities, self-reliance on decisions, and the belief that consultation on decisions should be a “communion with gods” underlies the autocrat's greatest fears: ambiguity and humiliation when decisions are poorly received (Jennings, 1962, pp. 137-147).

Zhengyuan Fu (1993) paints a slightly different picture of an autocratic theoretical perspective in his book, *Autocratic Tradition and Chinese Politics*. Fu (1993) traces thousands of years of autocratic tradition starting with the Shang kingdom in northern China and ending with the state of the Chinese Communist Party in the 1990s. The systemic context is relatively constant: society is completely subordinated as natural resources and property of the state where egalitarianism and individualism are strongly discouraged. Within the autocratic tradition there is a tradition of Chinese bureaucracy to ensure rationalization and order. The punishments for non-conformity were arguably crueller in pre-communist times, although the fear of punishment by death or torture continued through the evolution of the CCP. In pre-communist time, the people served to glorify the ruler; in communist times, the object shifted to the state or “fatherland” (Fu, 1993, pp. 173-176).

The dimension of legitimacy varied over regimes. Totalitarianists and neo-confucianists saw law as a major tool of the ruler to maintain authority and power while the ruler is above the law; this view continued through the confucianists, where the only limit on the arbitrary power of the ruler was his own moral convictions (Fu, 1993, pp. 38-46). In the Daoist (Taoist) school, “The Way” regulates everything both animate and inanimate; Dao gives rise to law and he who grasps Dao is the source of the law (Fu, 1993, pp. 35-37). The Moist school saw legitimacy of the ruler mandated by Heaven which “chose the most worth in the world and established him as the Son of Heaven” (Fu, 1993, pp. 37-38). In more recent times, the CCP, around the time of its conception, promoted that all legitimate power is monopolized by the party state (Fu, 1993).

Within Fu’s work, I was able to distinguish fourteen different descriptions of autocratic perspectives that contained concepts which met the critical-ideology criteria. The concepts included political culture, legal order, and leadership (or dictatorship of the proletariat). I discussed the multiple “flavors” of autocratic political culture and legal order in Chapter VII. For the construction of the instance of the paradigmatic model I choose the concept *leadership* in the autocratic perspective that reflects the CCP around the time of its inception. The coded record is depicted in Table 70 below. Note that a zero indicates there is not enough data to make an assessment of the clarifying concept.

Table 70 An Instance of an Autocratic Perspective

Data Description	Data
Bibliographic information	(Fu, 1993, pp. 173-176)
Articulated theoretical perspective	Autocratic
Concept	Leadership (dictatorship of the proletariat)
<i>Systemic Characterizations</i>	
World View	W ₃₃₃₃₃₂₁
Values	V ₁₃₃₂
Interests	I ₂₃
Historic Narrative	H ₃₂₂₂₃₃
<i>Situational Characterizations</i>	
Trust	T ₃₃₁
Participation	P ₁₂
Legitimacy	L ₂₂
Fear	F ₃₁₁
<i>Structural characterizations</i>	
Boundaries	B ₃₂₃
Dominance	D ₃₃₂₂₂₂
Communication	C ₃
Geography	G ₀₂₁₂

Bureaucratic Theoretical Perspectives

In the bureaucratic perspective, politics is about organized struggles. “The essence of politics - as we will have to emphasize time and again - is *struggle*, the recruitment of *allies* and of a *voluntary* following” (Weber, 1978b, p. 1414). Mintzberg borrows from this perspective but introduces the idea of legitimacy in describing politics. Politics is “individual or group behavior that is informal, ostensibly parochial, typically divisive, and above all, in the technical sense, illegitimate-sanction neither by formal authority, accepted ideology, nor certified expertise (though it may exploit any one of these)” (Mintzberg, 1983, p. 172). Politics in this sense arises through weaknesses in legitimate power where internal coalitions compete to influence policy and decisions in terms of their own perceptions of organizational interests (Mintzberg, 1983, p. 172). Politics, along with what he calls legitimate powers of authority, ideology, and expertise, are about how power pulsates through the organization “at times imploding or concentrating toward a center, at other times exploding or diffusing to the peripheries” (Mintzberg, 1983, p. 219).

The spread of bureaucracies has permeated nearly every aspect of our lives from the way we work to the ways we raise our families. This ubiquitous spread of bureaucracies has transformed the fabric of our societies (Scott, 2003, pp. 4-5).

Never much agitated, never even much resisted, a revolution for which no flags were raised, it transformed our lives during those very decades in which, unmindful of what was happening, Americans and Europeans debated instead such issues as socialism, populism, free silver, clericalism, chartism, and colonialism. It now stands as a monument to discrepancy between what men think they are designing and the world they are in fact building. (Lindblom, 1977, p. 95)

The transformation described above has moved us away from “communal” forms of organization to more “associative” forms that are bonded by contractual arrangements based on common interests (Starr, 1982, p. 148). It is no wonder that bureaucratic perspectives and the affect of bureaucracy on enterprise transformations have been studied widely.

One debate, particularly in the United States, is concerned with the dominance of the bureaucratic perspective and its impact on fundamental government functions. Most of the fear that bureaucracies are out of control reflects a lack of understanding of the systemic nature of bureaucracies, rhetoric masking personal or group agendas, and a desire to shift power in terms of dominance or control. In some cases, “out of control” can mean the enterprise “is not governed in all respects by its hierarchical superior” (Kaufman, 1981, p. 1). Other meanings of ‘out of control’ mean lack of Congressional oversight; insufficiency of public participation in decision making; and the seemingly burdensome cost of satisfying administrative requirements and prohibitions (Kaufman, 1981, pp. 1-2). Yet congressional hearings and examinations are taken seriously by bureaucracies; the competing, contradictory, and diverse checks and balances in the federal government help prevent disruptions in basic government functions and excessive concentrations of power. There is, however, evidence of excessive bureaucratic dominance:

President Truman, for example, summing up what must have been his own experience in the presidency, predicting that President Eisenhower would discover that it is not unusual for nothing to happen when the chief executive gives specific, clear commands. President Kennedy learning the same lesson when he discovered that military bases in Turkey that he had ordered closed were still open and operating a long time afterward, as

though he had never spoken. President Johnson entrusting the war on poverty to a new agency instead of to established domestic bureaus. President Nixon was convinced that the bureaucracy was hostile to his programs and had to be brought to heel. One president after another lent credence to the charge that bureaucracies are not primarily presidential instruments. (Kaufman, 1981, p. 3)

Max Weber (1947) also expressed concerns about the evolution of bureaucracies and the emergence of a “dictatorship of the bureaucrats.” Eugene Jennings (1962, pp. 165-166) summarizes:

Weber felt that a bureaucratic dictatorship would constitute a despotism unparalleled even by the ancient Egyptian tyrants. It would be more oppressive because it would be efficiently oppressive. He saw and dreaded the growth of the bureaucratic mind. It is as if “we were deliberately to become men who need ‘order’ and nothing but order, who become nervous and cowardly if for one moment the order wavers, and helpless and torn away from their total incorporation in it.” Weber saw the horrible demise of human affairs if one day the world was filled with nothing “but those little cogs, little men clinging to little jobs and striving towards bigger ones.” (Weber, 1947)

Gerald Frug wrote an insightful analysis of why these concerns may be valid. He examines the two principle bodies of legal doctrine that contribute most to the justification of bureaucracy – corporate and administrative law. Frug (1984) describes “four different attempts to defend corporations and administrative agencies, and explains why none of these theories can overcome the problems of managerial domination and personal alienation that exist in hierarchic organization” (p. 1281). Frug (1984) further explains, that “The very project of bureaucratic legitimation limits our ability to envision alternative, participatory forms of social organization, forms more consistent with the ideals of a democratic nation” (p. 1277). Bureaucracy is ideology in American law, supporting the continual concentration of political and economic power and problems with uncontrollable managerial discretion and a lack of participatory forms of social organization (Frug, 1984).

The benefit of the evolution of bureaucracies is contested. For example, in the field of public administration, new paradigms of bureaucracy are discussed in the literature. However, some researchers argue that this new paradigm is to the detriment of the field. Lynn (2001) writes, “A careful reading of that literature reveals, however, that the bureaucratic paradigm is, at best, a caricature and, at worst, a demonstrable distortion

of traditional thought that exhibited far more respect for law, politics citizens, and values than the new, customer-oriented managerialism and its variants” (p. 144).

While most studies of bureaucratic politics depict bureaucracies as conservative forces and/or as elite structures run by conservatives, there is some evidence that radical policy programs can be promoted by bureaucracies. Gregory Kasza (1987) cites three examples of civilian militaries serving military regimes in Japan (1937-45), Peru (1968-75) and Egypt (1952-70) that used specialized agencies, supraministerial bodies and low-ranking ministries to promote radical policy programs (Kasza, 1987). He concludes “middle-theories” are more useful than grand theoretical attempts to “encompass all bureaucracies in a single set of propositions” and suggests the role of individual leaders may be significant (Kasza, 1987, p. 851).

Theories that attempt to explain politics as a reflection of bureaucratic structure are severely limited in range, providing “little insight as to the kinds of interests that underlie specific institutional arrangements” (West, 1997). Yet even interests may not be sufficient. Edward Rhodes, in his study on the composition of naval forces, suggests that the competition of ideas for intellectual hegemony may show more explanatory power than bureaucratic theories (Rhodes, 1994). He criticizes Philip Zelikow and Graham Allison’s Model III (government or bureaucratic politics) but misses the point that the authors advocate for the use of several models (or theoretical perspectives) in explaining political phenomena (Allison & Zelikow, 1999). In addition, Paul Mitchell (1999) argues “interests are far more important than Rhodes suggests and that strategic ideas cannot be usefully separated from bureaucratic interests”(P. T. Mitchell, 1999, p. 243) Similar claims as to the limitations of the bureaucratic perspective as an adequate explanatory model are found in Rosati (1981) and Sigal (1978).

Westerners tend to think of situations in terms of positions and linear actions, both of which become subordinated to the larger bureaucratic picture. The western perspective is comfortable with the idea of some *person* designing the system; hence enterprises can be eliminated and manipulated by the human masters. Kaufman (1981) writes, “Consequently, given our predisposition to ascribe inequalities and other shortcomings in our political, economic, and social systems to specific agents, the course of modern history has elevated government officers and employees into the leading guilty

role in the minds of many Americans” (p. 8). Yet there is often no agency to blame and the inquirer is left with frustration and anxiety, if not hopelessness. Kaufman (1981) continues, “it upsets many people even to contemplate the possibility that we are caught up in a social process not under the control of any human agency. This view of the world may be more difficult to accept than the realization that we are not at the center of the universe and the discovery that we are products of blind natural selection” (p. 7).

For the instance of the paradigmatic model, I chose the concept of leadership in the section on autocratic perspectives. Hence, the same concept must be chosen for the rest of the three theoretical perspectives. I will use Jennings’s conception of the executive bureaucrat in the table below (1962).

Table 71 An Instance of a Bureaucratic Perspective

Data Description	Data
Bibliographic information	(Jennings, 1962)
Articulated theoretical perspective	Bureaucratic
Concept	Leadership (Executive)
<i>Systemic Characterizations</i>	
World View	W ₂₂₂₁₁₁₂
Values	V ₁₁₃₃₂
Interests	I ₂₁
Historic Narrative	H ₁₂₂₂₂₁
<i>Situational Characterizations</i>	
Trust	T ₃₃₂
Participation	P ₁₂
Legitimacy	L ₂₂
Fear	F ₂₁₂
<i>Structural characterizations</i>	
Boundaries	B ₆₁₁
Dominance	D ₂₂₂₂₂₂₂
Communication	C ₃
Geography	G ₂₁₀₀

Pluralistic Perspectives

Alford and Friedland (1992) note that the “pluralist perspective could have been called by several other names, ‘democratic,’ ‘behavioral,’ ‘individualistic,’ ‘functionalist,’ or ‘market,’ each of which would signify an emphasis and a set of issues within the perspective. We chose ‘pluralist’ because it is a common term in the literature, and it states the essential assumptions of the world view in one word” (Alford &

Friedland, 1992, p. 35). Along with Alford and Friedland (1992), Jennings's (1962) "executive democrat," Habermas's (1990) "ideal speech situation," and Stone's (2002) "polis model," I describe the general pluralist perspective. The specific perspective used in the instance of the paradigmatic model is from Alford and Friedland (1992).

In Chapters I and II and earlier in this chapter, I discussed Habermas' ideal speech situation that legitimizes enterprise action and decision through participatory procedures. The pluralist tends to view participation as a moral right of inclusion, although the specific procedures for how that is accomplished vary across leadership styles. Hence the main unit of focus are individuals, "whose *preferences* (motives, grievances, tastes) and *values* (accepted norms, personal commitments, beliefs and perceptions) are the irreducible unit to which other levels of analysis must ultimately be referred (Alford & Friedland, 1992, p. 35). Value systems are differentiated and it is the role of modern society to integrate them (Alford & Friedland, 1992).

The pluralist lives in tension between the ability of administration to empower, and the tendency of administration to snuff out participation and creative behaviors; in this perspective, power and order are aimed in different directions (Jennings, 1962, p. 198). The pluralistic leader attempts to unite by that which separates: power and expertise. He or she does this "by sharing his [or her] power, skills, beliefs and interests, problems, assignments and responsibilities" as well as resources (Jennings, 1962, pp. 198-199). While the sharing orientation of pluralists foster a culture of individual freedom, it is subject to the constraints of proper use that promotes responsibility for the freedom of others and prohibits "accumulation of power for self-defined ends" (Jennings, 1962, p. 209).

Pluralists put a strong emphasis on egalitarianism and individualism: "Organizations, institutions, and societies are built up from successive layers of individual interactions in segmented roles" where "shared values govern their interactions" (Alford & Friedland, 1992, pp. 38-39). Jennings supports this observation: "Every individual is capable of feeling united with others or separated from them" (Jennings, 1962, p. 203). This view differs from the autocrat whose "either-or complex allows rigid classification of people that serves both his administrative needs to control and psychological needs to dominate. Without this hierarchical view his drive for power

would be relatively ineffective...inequality is the primary basis of control” (Jennings, 1962, p. 203). Tensions that do arise are a result of a failure of normative integration, weaknesses in democratic political culture, or the level of education of participants (Alford & Friedland, 1992, p. 40).

To pluralists, the process of modernization emphasizes differentiation of occupations within enterprises and society:

Modern values diffuse widely, generating and sustaining economic growth. Nontraditional networks of communication and social exchange are established: geographic mobility, mass media, and world trade markets. The growth of income and wealth and the expansion of industrial and other nonagricultural service and white collar occupations require the growth of mass education.” (Alford & Friedland, 1992, pp. 47-48)

Ideas, persuasion, and alliances fuel change as opposed to the bureaucratic view where change is seen as motivated primarily by material exchange (Stone, 2002, p. 34).

Within enterprises, one of the most common paradoxical problems has to do with efficiency. In some efforts, change equals efficiency and leaders move to “transform” their organizations into more efficient machines. The simple formula is more product for less work hours – it is convenient, measureable, and attainable through goal-setting and a rhythm of means-ends meetings and instrumented accountability. It is a bureaucrat’s heaven, but paradoxical in that the enterprise becomes over-determined by rules, processes, and instrumented accountability that, in the end, only reinforces existing paradigms and language. Pluralists recognize the paradox and ask more fundamental questions such as: what counts as resources towards production? Are they simultaneously outputs for someone else? How are benefits and production figured into the equation? Stone (2002) includes, “How should we count the virtually unlimited opportunity costs of resources used as inputs?” (p. 67). In terms of output, pluralists question who determines what counts as production, who sets objectives, how the values between multiple objectives are mediated, and if different objectives and products benefit different constituencies or groups (Stone, 2002, p. 67).

Table 72 An Instance of a Pluralistic Perspective

Data Description	Data
Bibliographic information	(Alford & Friedland, 1992)
Articulated theoretical perspective	Pluralistic
Concept	Leadership
<i>Systemic Characterizations</i>	
World View	W ₁₁₁₃₄₃₁
Values	V ₃₂₁₁₁
Interests	I ₁₂
Historic Narrative	H ₅₃₁₃₁₁
<i>Situational Characterizations</i>	
Trust	T ₁₁₃
Participation	P ₂₁
Legitimacy	L ₁₃
Fear	F ₁₃₃
<i>Structural characterizations</i>	
Boundaries	B ₂₁₂
Dominance	D ₁₁₁₁₁₁₁
Communication	C ₁
Geography	G ₁₁₁₁

Cognitive Perspectives

Central to all conceptions of cognitive perspectives identified in this research is the process of cognition. The individual who holds a cognitive perspective recognizes the limitations of rational actor models and prefers to think of the world in terms of mental maps, world views, and emotion linked through cognitive processes that involve images, symbols, beliefs, scripts, roles, and schema (Cottam & Shih, 1992, p. vii).

A critical conception of politics in the cognitive perspective is conscious of an array of human-centric issues such as cognitive dissonance, value and interest mismatches, and “false consciousnesses” (Gouldner, 1976). Cognitive perspectives are at their core highly sensitive to historic narratives. Similar to pluralist approaches, politics is often worked through in venues designed to increase understanding between individuals and groups. But in its confrontational form, politics in the cognitive perspective are highly subversive. Politics in the cognitive perspective and politics in the bureaucratic perspective are in some sense analogous to the Asian game of go (or *wei-chi* in China) and chess, respectively. The goal of *wei-chi* is to encircle and isolate the opponent, while in chess moves force decisive battles where it rarely pays to sacrifice or withdraw pieces. In *wei-chi*, mobility and fluidity of movement is required to immobilize

the opponent's pieces whereas chess is more aggressive and position oriented (Greene, 2000, p. 424). Green (2000) writes, "[i]n the *wei-chi* way of war, you encircle the enemy's brain, using mind games, propaganda, and irritation tactics to confuse and dishearten" (p. 424) .

The idea of false consciousness is used to distinguish the idea of false consciousness in non-moral critical theory from radical critiques such as found in Marx, Hitler, the Chinese Cultural Revolution, Stalinist Russia, and as far back as Plato. Radical critiques are motivated by the belief that people can be better, not just different than they are at a moment in time. The critiques contain four essential elements, described here by (Kirkpatrick, 1982, p. 104):

- First, an attack on people as they actually exist as corrupt, greedy, envious, materialistic, egotistic, and so forth.
- Second, an assumption that the moral failures of human beings (however they are defined) are a result of bad social organization and can be "cured" change the society, create "new" men.
- Third, an attack on dominant conceptions of reality by way of a doctrine of "false consciousness" that invalidates the ideas and preferences of everyone except the revolutionary.
- Fourth, the recommendation of a new epistemology which makes knowing a function of ideology: to know the workers' true wants or wishes, consult Marx or Marcuse.

Laclau and Mouffe argue that there is a fundamental flaw in Marxist thought. They argue against class perspectives of politics and power and support the view that social antagonisms occur when identities are threatened (Precious, 2008). In class perspectives, the authors argue, social antagonisms occur when social antagonisms are fully constituted a priori in social relations – the fundamental flaw in Marxist thought. That is, the working class is not an a priori concept that is fixed at the point of production, but instead it is one of many identities individuals and groups may have over many discursive contexts.

Cognitive perspectives are often described in the psychology literature as psychological processes where organization emerges from the formation of common

“cause-maps” (Cottam & Shih, 1992) or “mental plans” (Powell, Dyson, & Purkitt, 1987). This conception of a cognitive perspective is similar to that found in Weick (1995). Some researchers emphasize the use of roles and drama in their analysis where “decisions are not the result of a struggle to recognize reality but the selection and utilization of the sense-making images and roles intertwined in an intricate drama, the script of which has been memorized by the actors and audience as well” (Cottam & Shih, 1992, p. viii). The study of the concept of images as cognitive organizing devices and information filters are also an active area of study in political psychology. Some of these areas were covered under the section *Influence* in Chapter II. Cognitive approaches can also include understanding how people think about the world of politics (McGraw, 2000). One significant challenge in political psychology is linking effects to analysis on political cognition. Cottam (1992) writes, “affect is much more difficult to study, in part because psychology has given us few clues concerning distinct patterns in the relationship between affect and cognition and in part because we are uncertain how much of a role affect plays in political decisions” (p. 13). Whether affect and cognition are linked and how is a point of contention in the literature.

In the cognitive perspective, organizations are perceived as a process with emphasis on the cognitive processes of the members as opposed to existing structures that determine patterns of communication and activity (Shih, 1992, p. 40; Walker, 1992, p. 20). Organizations exist primarily in time as opposed to space; the processes of organization must continually be reaccomplished as members strive towards goals through control of uncertainty (Thompson, 1967, pp. 9-13, 159-161; Weick, 1977, p. 278). However, the emphasis on goals falls into the means-ends paradigm discussed by Brown (1996), hence the processes described fall subject to agenda-setting by elites or resource managers. The power distribution in the processes and how power is managed in participatory forums needs to be addressed if these approaches are to be sensitive to the types of emergent behaviors possible in enterprise transformations.

Coherence theory is one approach to understanding the process of cognition. Some researchers, such as Paul Thagard (2000), view coherence theory as a way to integrate cognition and emotion and bridge psychology and philosophy: “Much of human cognition can be understood in terms of coherence as constraint satisfaction, and many of

the central problems of philosophy can be given coherence-based solutions” (p. 312). These unifying and integrative claims, however, are highly contested among researchers in both psychology and philosophy.

While most managers think of themselves as pragmatists who practice good, rational judgment, the cognitivist views cognitive biases and organizational correctives rooted in competing epistemological and ideological worldviews (Kruglanski & Webster, 1996; Tetlock, 2000). Building on the work of Kruglanski and Weber (1996), Lipsett and Raab (1978), McClosky and Brill (1983), Tetlock(2000) , and Sniderman and Tetlock (1986) I analyzed personal epistemologies “along a cognitive-style continuum that gauged strength of preference for conceptual simplicity and explanatory closure” (Tetlock, 2000, p. 297). Subjects evaluated alleged cognitive biases of individuals, strategies that enterprises use to cope with accountability demands from the broader society, and strategies of coping and structuring accountability relationships between employees and supervisors. The broad evaluation topics allowed for analysis at multiple levels within the enterprise. Tetlock (2000) found “Political ideology and cognitive style emerged as consistent predictors of the value spins that managers placed on decisions at all three levels of analysis³⁰...Intuitive theories of good judgment apparently cut across levels of analysis are deeply grounded in personal epistemologies and political ideologies” (p. 293).

The cognitivist is sensitive to personal epistemologies and political ideologies and will construct narratives that consciously integrate at both the conscious and unconscious level. Participation is largely viewed as a moral right with debate and engagement part of the creative processes within enterprises. The idea is to get concepts into normal

³⁰ Specifically, Tetlock found “conservative managers with strong preferences for cognitive closure were most likely (a) to defend simple heuristic-driven errors such as overattribution and overconfidence and warn of the mirror-image mistakes of failing to hold people accountable and of diluting sound policies with irrelevant side-objectives; (b) to be skeptical of complex strategies of structuring or coping with accountability and to praise those who lay down clear rules and take decisive stands; (c) to prefer simple philosophies of corporate governance (the shareholder over stakeholder model) and to endorse organizational norms such as hierarchical filtering that reduce cognitive overload by short-circuiting unnecessary argumentation” (Tetlock, 2000, p. 293).

discourse through a conscious effort to “change the brains” of other people. George Lakoff created the term *cognitive policy* to reflect how this is done through the process of political debate and engagement: “Cognitive policy is a framing campaign that precedes specific material policies. It introduces deep frames, the moral frames that come first” – frames either exist or are activated in the brains of the public prior to serious discussion on policy issues (Lakoff, 2008, pp. 169-170).

Frames, cognition, and concepts are central to the cognitivist. The findings from neuroscience and cognitive linguistics arm the inquisitive cognitivist with insights to be more successful at politics. Lakoff (2008) describes how the combination of the two fields allow researchers to study “precise conceptual frames, conceptual metaphors, and cultural narratives that can account for the inferences actually used in unconscious reasoning about politics” (Lakoff, 2008, p. 197). I use Lakoff’s work and his conception of leadership to articulate this instance of a cognitive perspective (2008).

Table 73 An Instance of a Cognitive Perspective

Data Description	Data
Bibliographic information	(Lakoff, 2008)
Articulated theoretical perspective	Cognitive
Concept	Leadership
<i>Systemic Characterizations</i>	
World View	W ₃₃₃₃₃₄₃
Values	V ₃₂₁₁₁
Interests	I ₁₁
Historic Narrative	H ₄₃₃₃₁₃
<i>Situational Characterizations</i>	
Trust	T ₁₁₃
Participation	P ₂₁
Legitimacy	L ₁₃
Fear	F ₃₃₃
<i>Structural characterizations</i>	
Boundaries	B ₇₁₂
Dominance	D ₁₁₁₃₁₁₁
Communication	C ₁
Geography	G ₀₀₀₁

APPENDIX F: IMPLICATIONS FOR ENGINEERING MANAGERS

And let it be noted that there is no more delicate matter to take in hand, nor more dangerous to conduct, nor more doubtful in its success, than to set up as the leader in the introduction of changes. For he who innovates will have for his enemies all those who are well off under the existing order of things, and only lukewarm supporters in those who might be better off under new.

-Niccoló Machiavelli in *The Prince* (1513)

In this appendix I discuss the practical implications of this research for engineering managers. Reflecting upon the results of the research and in terms of managing enterprise transformations, perhaps the most important characteristic an engineering manager can develop is the ability to be comfortable making decisions in ambiguous and uncertain environments. Enterprise transformations are comprised of shifting states that simultaneously exist – cooperation, frustration, and paradigmatic hegemony. The measure of this ability can be improved by looking at specific concepts across theoretical perspectives, understanding where he or she stands, and the terrain of tensions that might generate political behavior. This exercise provides critical insights into why each of the competing (or complementary) positions defines the concept the way they do and the differences between alternative conceptions. The engineering manager becomes more effective at the dialectic process through which enterprise problems and associated theses are developed and more adept at managing politics due to the increased awareness of what strategic alliances may emerge to shape systemic, situational, and structural contexts.

Red Teams and Dialectical Processes

Enterprises often employ advisory groups or red teams to stimulate change. But change must occur at multiple levels within the enterprise in order to transform it. It is the paradox of transformation that highly identified workforces with associated and

institutionalized patterns of communication, doctrine, rules, and processes are unable to discuss change in terms other than those that affirm the current realities. While advisory groups and red teams are valuable, they are limited both in scope and persistence across the enterprise. These tools are insufficient by themselves to stimulate the change needed for enterprise transformations. Engineering managers may instead or in addition use the red team concept on a regular basis to generate an internal dialectic on critical issues.

Risk

The concept of risk within the theoretical framework developed needs further exploration and research to prevent events such as the Union Carbide disaster. Particularly in multi-culture engineering environments, a transparent and clearly articulated understanding of risk from each perspective should be part of the pre-design phase. For hazardous engineering efforts, the understanding of risk needs to be revisited at each stage of design to ensure risk at all levels of the organization is understood and documented. A useful supporting tool may be mind maps or similar graphical tools. In this context, the theoretical framework forms the basis of understanding from which to develop causal linkages between socio-technical elements of the design.

Ascertaining Theoretical Perspectives

In the remaining paragraphs of this appendix, I explore ways in which the theoretical framework may be developed and deployed as a tool for engineering managers. There are many steps that require further validation, empirical evidence, or stronger theoretical support. I have made every attempt to note these areas of weakness as well as assumptions made.

The initial data collected should include what type of stimuli is motivating the transformation of the enterprise, what concept is being modified or proposed (may be in the form of a problem), and the theoretical perspectives of the major stakeholders, whether they be groups, institutions, or elites. Stimuli may be an organization's desire for technological innovation, gains in efficiency, dominance in existing or new markets, competitive or strategic advantage, or threats from an adversary or competitor. Because power operates differently across systemic, situational, and structural contexts, tools will

need to be tailored to the context explored. The data collected may be from surveys, interviews, lessons learned, verbal or written statements, literature, or existing analysis. The design of the data collection is context sensitive. Table 74 provides some measurement instrument recommendations and suggestions for key questions for data collection for each dimension within the three contexts.

Table 74 Suggested Measurement Instruments and Questions to Ascertain Theoretical Perspectives

Context	Dimension	Mass Measurement Instrument / Key Questions	Elite Measurement Instrument / Key Questions
Systemic	World Views	Enterprise historical analysis: How are problems approached and resolved? What happened when there was no resolution? What have been the ontological approaches and how are results considered? What is the nature of knowledge in the enterprise?	Surveys, interviews using clarifying concepts
Systemic	Values	Surveys, interviews using clarifying concepts. Examination of reward systems and basis for previous promotions.	Surveys where elites describe their management style, how they view employees. Also use clarifying concepts to compare with mass analysis.
Systemic	Interests	Surveys, interviews and historic case studies that provide feedback on how interests are shared, promoted and deconflicted in the enterprise.	Surveys and interviews on how management resolves issues and promotes agendas.
Systemic	Historic Narrative	Enterprise historical analysis: How has the enterprise responded to stimulus in the past? Used clarifying concepts to shape design for inquiry.	Same as mass.
Situational	Trust	Surveys and interviews using the clarifying concepts.	Same as mass.
Situational	Fear	Surveys and interviews using the clarifying concepts.	Same as mass. Emphasis on how elites manage ambiguity.
Situational	Participation	Surveys and interviews using the clarifying concepts.	Same as mass.
Situational	Legitimacy	Enterprise historical analysis: Who has the power to act and make decisions? What decisions stick and why not others? Surveys and interviews using the clarifying concepts.	Surveys and interviews using the clarifying concepts.
Structural	Boundaries	What are the boards, centers and cells that determine how work is accomplished and who participates? What is the relative power between bounded spaces?	Same as mass.

Table 74 Continued

Context	Dimension	Mass Measurement Instrument / Key Questions	Elite Measurement Instrument / Key Questions
Structural	Dominance	Enterprise historical analysis: How stable are existing organization charts? How often have they changes in the past? Who gets promoted and why? What is the reward system and how are rewards evaluated and by who? What are the feedback mechanisms from employees to leadership?	Same as mass plus surveys for elite perspectives on command, control and feedback, using the clarifying concepts as a basis for design.
Structural	Communication	Examine communication flows and patterns of communication. Are the flows primarily designed to socialize ideas, constrain, or control?	Same as mass.
Structural	Geography	Interviews, surveys and an analysis of politics and rewards. Does geography affect other dimensions? What are the driving forces and ideas behind expansion of the enterprise?	Same as mass.

Once the theoretical perspectives at work have been identified, the paradigmatic model is compared with other paradigmatic models in the database of theoretical perspectives. The following questions could be explored:

- What are the appropriate “labels” for the theoretical perspectives that exists? This, or a coding scheme, will be used to describe results.
- What does previous analysis say about politics associated with the concept (or problem statement) under consideration?
- What does previous analysis say about conflict between the theoretical perspectives that are present?

The results from the questions qualitatively inform the next phase of design. Figure 35 depicts the data collection described in the previous two paragraphs.

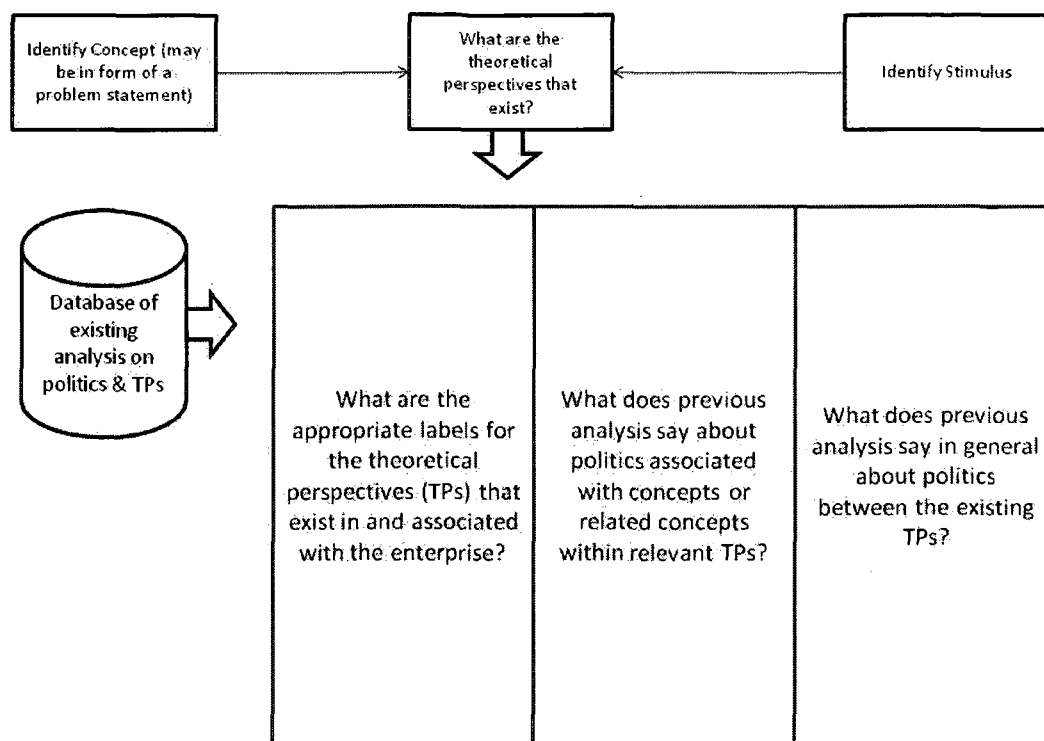


Figure 35 Identifying and Classifying Theoretical Perspectives

Managing Politics in Enterprises under Transformation

Within the research I characterize enterprises under transformation as shifting states between cooperation, frustration, and paradigmatic hegemony. As I described in Chapter III, this latter state occurs when the enterprise “system” lacks frustration and is not tending towards a cooperative state. Instead, the system tends to grow without bounds as a single hegemonic paradigm emerges. As discussed in Chapter II, highly identified workforces tend to a state of paradigmatic hegemony. An engineering manager might want to suspend this tendency until he or she was ready to institutionalize the solution to the problem (or change as a result of a modified or new concept). With additional development of the framework beyond the scope of this research, the theoretical framework could be a powerful tool to manage politics in enterprise transformation. I will explore how this might be done in the following paragraphs.

Fiol (2002) developed a model of identity transformation in organizations that may be useful as a meta-view for how an engineering manager might suspect or limit paradigmatic hegemony. The model involves trust breaking and trust building in an environment characterized by organizational disruption. I will describe specific steps in a suggested process in the remaining sections of this appendix. The model Fiol (2002) described is adapted and presented in Figure 36 below.

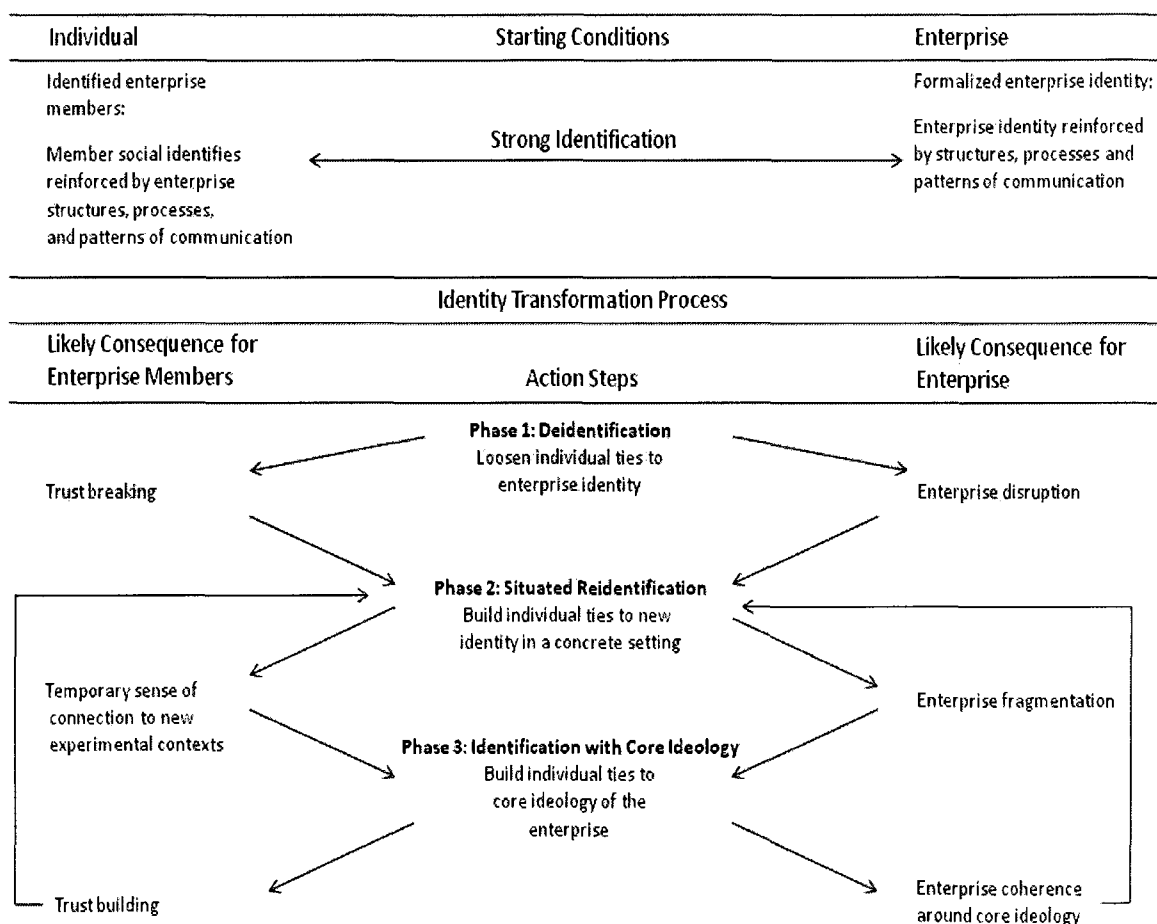


Figure 36 A Model of Identity Transformation in Enterprises (adapted from Fiol, 2002)

Using the model of identity transformation, engineering managers develop frames, narratives, and metaphors that address dimensions within the theoretical framework where paradigmatic hegemony may emerge or currently exists. The reduction of paradigmatic hegemony allows the inclusion of multiple perspectives in the dialectic, increasing the opportunities for new solutions and transformative behavior. This approach also allows the engineering manager to consider his or her options in terms of what ideology is most appropriate for the concept or problem to be solved. In this sense, the engineering manager is managing politics with the assumption that he or she 1) is responsible for the transformation effort and 2) has a high degree of flexibility in the decisions associated with the transformation. I will address strategies for engineering managers with less accountability and less decision-making authority later on in this appendix.

Regardless of whether paradigmatic hegemony exists, the engineering manager should articulate the vision that the concept addresses or situation that the problem solves. The artifact can be a video, document, or vision statement. What is important is that the artifact provides a clear reference point for the dialectic and comparison of theoretical perspectives. Employment of the theoretical framework for the purpose of managing politics will require participatory mechanisms for organization members to express ideas, frustrations, and comments as trust is broken and built and the enterprise is fragmented and reconstructed along the lines of the model for identity transformation. Within the research, I emphasized the criticality of participation by making it a dimension within the theoretical framework. However, should the engineering manager desire an autocratic core ideology, as I indicated in my research, participatory mechanisms should be narrowed and distance placed between the engineering manager and the workforce.

It should be noted that my own biases concerning the implications of the research for engineering managers are emerging. I noted my biases in Chapter III and Chapter IV. The types of engineering management regimes range from totalitarian to democratic. There are implications in this chapter that are relevant no matter which theoretical perspective the engineering manager embodies, but there are other implications that assume the engineering manager has a theoretical perspective more aligned with democratic and cognitive perspectives.

After the vision is captured in an appropriate artifact, the engineering manager should develop a way to present options, or a proposed solution, for the dialectic process. Scenarios, futures, trend analysis, and historical stories illustrating the problem and a solution are all ways in which an engineering manager can present choices for debate. The dialectic should result in either a confirmed thesis (solution to the problem or confirmed concept) or an alternative thesis to be explored in another iteration of the dialectic process. Once a solution or agreed to concept is solidified, the engineering manager can develop an appropriate artifact that solidifies the result. Figure 37 describes the model for managing politics described in the previous paragraphs. Note that this model builds on Figure 35 and Figure 36, which are included as embedded pictures in Figure 37.

The implications for engineering managers have emphasized managing politics in enterprise transformations. However, often the engineering manager lacks the authority and span to effectively manage politics. As such, the engineer manager may at best analyze the politics that exist and may occur while employing an indirect approach to influence the enterprise transformation. In this case, the theoretical framework may support the identification of opportunities and challenges that may emerge in the shifting states that exist in enterprises undergoing transformation.

As in the previous model, this model identifies and classifies the theoretical perspectives associated with stakeholders impacted by the concept, problem, or solution development. The engineering manager should identify those dimensions within the framework where there may be cooperation, frustration, and paradigmatic hegemony. Frames, narratives, and metaphors should be developed for engaging in debates when the opportunity arises or in forums proposed by the engineering manager. In essence, the engineering manager will look for opportunities to use the model for managing politics. The engineering manager who has significant authority and responsibility creates strategic alliances through the dialectic, addressing each element of the framework through the process. Lacking that opportunity, the engineering manager should proceed with deeper analysis on the politics in the enterprise. He or she must understand the different tensions between dimensions in the theoretical perspectives to understand what strategic alliances may form to affect particular systemic, situational, and structural contexts and when and where he or she may engage to influence those arrangements.

In addition to using the political analysis to shape engagement and build strategic alliances, the engineering manager can use the analysis to shape products that show areas in design where there are significant disconnects before decisions are brought to decision-makers. All too often an engineering product team develops a product assured that the sheer logic and beauty of design and critical function that the product fills will be enough to satisfy decision makers. But decision makers make decisions within political environments – an engineering manager who is sensitive to the political situation is better prepared to develop a solution that satisfies decision makers. While systems literature contains methods and approaches for satisficing, they are not sensitive to all the dimensions represented in the theoretical framework.

Finally, the theoretical framework may support business development efforts by identifying the areas where there is conflict and opportunity, particularly in the development of new technologies or controversial development (e.g., products derived from stem cell research). For highly complex environments involving multiple countries, stakeholders, and institutions, automating the theoretical framework into a model for ideological reasoning could provide insights into the responses of multiple entities to specific stimuli. For example, in response to stimuli, an autocrat may broaden enterprise

transformation approaches to include social and policy reforms to motivate holistic approaches deeply embedded in political ideologies. A bureaucrat may use directives, memos, rules, and processes to instrument control over potential deviations from rational plans. A pluralist may call for more participatory venues to raise awareness and agreement on relevant issues whereas the cognitivist may add a psychologist to the enterprise to raise awareness of value and interest conflicts to develop strategies that address fears and cognitive dissonances. With further research the theoretical framework could be employed to support transformation audits, strategy development, and open debates about new possibilities for transformation.

Summary

The analysis of politics in enterprise transformations will always be part art and part science. This research pushes the bounds into what might be included in science given further development. Engineering managers who are sensitive to politics and use that understanding to reduce risk and develop more appropriate products for stakeholders have a clear advantage over those who do not. By embracing politics as part of the creative process, engineering managers can reduce risk, increase stakeholder buy-in, and create more appropriate products which satisfy key stakeholders.

VITA

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