

Uses of Complex Thinking
in Higher Education Adaptive Leadership Practice:
A Multiple-Case Study

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I dedicate this dissertation to
my husband Ali and
my daughters Audrey and Jaclyn,
whose presence in my life has sustained me
through darkness and light.
I love you with every atom of my being.

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Abstract

Research and theories of leadership development link the capacity for complex thinking to effectiveness at leading adaptive change. However, few empirical studies examine how this link operates in natural work settings, or explore its implications for practicing the kinds of leadership being called for in higher education today.

In this study, I address this gap using post-positivist, ethnographic methods to examine how three higher education leaders, who are publicly recognized as effective change agents and demonstrate the capacity for complex thinking via research-validated instruments, use complex thinking to understand and lead adaptive change in natural work settings. Drawing on a conceptual framework that spans multiple theories of leadership and human development, including Torbert's developmental action inquiry, Kegan's subject-object theory, and Heifetz's adaptive leadership theory, I interpret the data in the context of two research questions:

1. How, if at all, do three developmentally mature leaders in higher education use complex thinking to understand their adaptive leadership work?
2. How, if at all, do participants' uses of complex thinking shape their decisions and actions on the ground?

I find that participating leaders use their ongoing awareness of the constructed nature of reality, combined with high attunement to convergence and divergence of local and broader situational factors, to help their communities identify and address three types of value-reality gaps: *part-whole tensions*, *critical ambiguities*, and *identity fractures*. I provide rich illustrations of how these individuals draw on complex-thinking capacities to pursue six action strategies: (a) dynamically balance autonomy and oversight, (b) create shared frames illuminating larger realities, (c) engage and reorient the community, (d) co-construct and

dynamically interpret goals, (e) cultivate strategic relationships grounded in mutual trust, and (f) create conditions that help people weather uncertainties, build new identities, and shape the future. I also discuss five, complex thinking informed action themes that run robustly through these three participants' leadership practices: (a) cultivate expansive multicentered purposes, (b) illuminate the invisible, (c) redefine and recalibrate, (d) keep things connected, and (e) orchestrate co-construction. I discuss implications for leadership practice and outline opportunities for future research.

Chapter 1.

Introduction

Contemporary leadership scholars increasingly call attention to the high degrees of complexity characterizing twenty-first century society and the work of leading adaptive kinds of change in this environment (Drath et al., 2008; Gray, 2009; Heifetz, 1994; Helsing, Howell, Kegan, & Lahey, 2008; Kegan, 1994; Lichtenstein & Plowman, 2009; Pearson, 2012; Torbert, 2004; Uhl-bien, Marion, & McKelvey, 2007; Wilkinson, 2006). Some describe how market globalization, technological advancements, shifting demographics, and other macro-forces combine to produce new forms of complexity. Others use modern research methods and leadership theories to give greater visibility into the many forms of complexity that are, and always have been, intrinsic to the work of leading change in large social systems. Those contributing to this literature widely conclude that the world needs more leaders who are more capable of meeting the psychological demands associated with the difficult work of leading adaptive change in today's world.

Scholars in this contemporary leadership space who work with constructive-developmental theories of human development contend that *complex thinking*, a particular mental capacity that reflects highly differentiated and integrative ways of understanding, represents a uniquely valuable, arguably necessary personal asset for leaders seeking to influence adaptive change in today's world (Berger, 2012; Boiral, Cayer & Baron, 2009; Joiner & Josephs, 2007; Rooke & Torbert, 2005; Torbert, 1994b; Yeyinmen & Rodriguez, 2011). The theories framing these scholars' work define distinct levels of thinking complexity and delineate the nature of thinking within these different levels. Considerable attention has

been given to theorizing how complex thinking can serve as an asset to leaders, and examining empirical links between complex thinking and different measures of leadership behavior and effectiveness. Taken as a whole, the existing literature suggests that complex thinking holds great promise as a personal asset for leaders pursuing adaptive change in today's complex environment. However, much less attention has been given by scholars to empirically examining how complex thinking manifests in the way particular leaders understand and approach their leadership work in actual settings where leadership work normally takes place.

Higher education leadership is a particularly promising domain in which to situate such empirical exploration of the lived leadership practices of complex-thinking leaders. First, the leadership challenges in this arena are multifaceted and dynamic, and thus present ample opportunities for participating leaders to exercise their most complex and integrative ways of knowing (Barnett, 2001; Birnbaum, 1988). Indeed, scholars of higher education leadership are among those calling for more complexity in the way leaders understand what's happening and what's needed (Drew, 2010; Duderstadt, 2009). Second, with the exception of Torbert's (1978, 1981a, 1981b, 1991, 2000a) action research, no empirical studies looking at how complex thinking is used in leadership practice have been situated in the higher education context. Third, and perhaps most importantly, the participants in and products of higher education shape society in fundamental and far-reaching ways (Boyd, 2001; Cortese, 2012). For example, scholars point out that colleges and universities play a significant role in promoting self-actualization among students, evolving culture through policy and pedagogy, defining goals and best practices for whole sectors of society, cultivating ethical or unethical attitudes and behaviors among individuals and institutions, and developing skills and capacities required for competitiveness in a global market (Gallant, 2011; Boyd, 2001;

Cortese, 2012; DeNicola, 2102; Duderstadt, 2009; Khurana, 2007). The deep reach of this sector into our social fabric justifies urgency around efforts to deepen insight into the ways that capable and effective leaders within this sector are approaching the process of leading adaptive change within and beyond their institutions and communities.

Study Purpose and Overview

The purpose of this research is to bridge the theory-practice gap described above and, in the process, help address the question of how leaders can tackle the complex problems facing our twenty-first century society. My intellectual objectives (Maxwell, 2005) are to describe the participating leaders' sensemaking processes, leadership behaviors and experiences of working to lead adaptive change; as well as to explore relationships among these different types of leadership activity. My practical aim (Maxwell, 2005) is to produce what van Manen (1990) calls "action sensitive knowledge," (p.11) which is oriented toward illuminating how research participants "stand in life" (p.11) and, thus, promotes a dialogic response from readers. I advance my goals and purpose by conducting a multiple case-study in which I use ethnographic methods to examine up close how three higher education leaders use complex thinking to make sense of, and guide, their actions with respect to specific lines of adaptive leadership work they are pursuing in their current roles. Two research questions guide my investigation:

1. How, if at all, do three developmentally mature leaders in higher education use complex thinking to understand their adaptive leadership work?
2. How, if at all, do participants' uses of complex thinking shape their decisions and actions on the ground?

The three participating leaders—a chancellor of a public university system, a president of a liberal arts college, and dean of arts and sciences at a (different) liberal arts

college—are exemplary in their demonstrated ability to exercise complex thinking, their publicly recognized success at leading adaptive change in higher education, their ongoing significant involvement in higher education change leadership work, and their generosity in offering a window into their thinking and actions on the ground. Using a conceptual lens that draws on multiple theories of leadership and human development, and an iterative data collection and analysis process grounded in a critical-constructivist epistemology, I investigate the multifaceted and dynamic nature of these leaders' ways of thinking and acting — looking at how they employ different forms and combinations of complex thinking in the process of carrying out their leadership work in a variety of settings and situations over a period of approximately nine months. I focus my examination on specific lines of leadership work, identified in conjunction with participants, and reflecting substantive areas of focus for these leaders during the study period. These boundaries allow me to engage in deep inquiry within a defined scope, thus enabling me to witness the dynamic, multilayered and contextualized qualities of their sensemaking processes and associated leadership practices.

Organization of the Dissertation

The dissertation is organized as follows:

In Chapter 2:	Literature Review and Conceptual Framework I begin by discussing the rationale for this study and outlining gaps in the literature that this research will help address. I then review the literature looking at leadership applications of constructive-developmental theory focusing primarily on work that examines the nature and use of <i>complex thinking</i> as conceptualized by two major constructive-developmental theorists: Robert Kegan and William Torbert. After that, I review the literature developing and using Heifetz' adaptive leadership theory to clarify what I mean by <i>adaptive leadership work</i> . Next, I present a high-level review of the higher education leadership literature to provide a backdrop and entry point for situating my study in this context. Finally, I step back and comment in more direct fashion on the nature of the gap I'm filling, the way that I'm using the findings from these different literature reviews to inform my study, and the contribution my study will make toward addressing the gap.

Research Methods

In Chapter 3: I present the study design and methodology. I begin with the research questions and an overview of my epistemological assumptions. Next, I discuss my multi-case ethnographic design including the boundaries defining the cases, the multiple qualitative methods that I use to collect and analyze the data, and the dialectic-integrative research process I use, which involves moving continually between fieldwork and analysis to produce an evolving set of assumptions, questions, and understanding of the phenomenon I'm studying. I also present my participant selection process, including a summary of the qualification and recruiting outcomes. Finally, I discuss the timeline used for the study.

Findings: Case Profiles

In Chapters 4-6: I present my findings in the form of interpretive case profiles. Each chapter offers rich and varied glimpses into the lived leadership practices of one higher education leader who is engaged in significant adaptive work.

Chapter 4 “Harold,”¹ Chancellor of a State College and University System
Adaptive Focus: Sustainable Public Transformative Education via Strategic Budgeting and Partnerships

Chapter 5 “Janine,” President of a Private Liberal Arts College
Adaptive Focus: Whole Student Development & Social Impact via Strategic Institutional Development

Chapter 6 “Sherry,” Dean of an Arts and Sciences College
Adaptive Focus: Interdisciplinary approaches to STEM as a Strategic Lever for institutional Change

These descriptive accounts provide insight into the ways that these three complex-thinking adaptive leaders understand their work environments, define key aspects of their adaptive work, demonstrate the use of particular strategies in the way they approach that work, and carry out specific kinds of actions in the process of implementing those strategies. In these chapters, my analysis of how participating leaders use complex thinking to understand and approach their work

¹ Names are pseudonyms.

is both implicit in the specific strategies I choose to highlight and action scenarios I select to illustrate those leaders' practices, and explicit in my interpretations of these activities, many of which are woven throughout the text, and some of which are consolidated into bulleted summaries. When appropriate, I also suggest how less complex thinking leaders might differently handle the same challenge or choice.

Discussion

In Chapter 7: I present cross-case themes that emerged from the analysis, examine findings through the multi-theory lens of my conceptual framework, , and outline key learnings of relevance to the field.

Implications & Future Research

In Chapter 8: I discuss implications of this study for the field—both theory and practice—as well as outline avenues of future research motivated or made more possible by this study.

In the Coda: I present a multi-stanza haiku capturing my experience of the research process.

Chapter 2.

Literature Review and Conceptual Framework

I present this chapter in four parts. First (Part I: Study Rationale and Gaps in the Literature), I discuss the importance of this study, define some high-level constructs forming the basis of my argument, and explain how this study differs from existing research. Second, (Part II: Theoretical Framework), I introduce the three major theories comprising my integrative analytic lens—Kegan’s subject-object theory, Torbert’s developmental action inquiry, and Heifetz’ adaptive leadership. I focus this part of the review on defining what I mean by *complex thinking*, as a basis for identifying when my participants are exercising this mental capacity; and what I mean by *adaptive work* as a basis for keeping my investigation focused on those aspects of participants’ leadership activity. Third (Part III: Higher Education—A Fitting Arena), I provide a high-level overview of the kinds of adaptive work facing higher education leaders today, and present a rationale for situating my research in this context. Fourth (Part IV: Addressing the Gaps), I draw from the first three parts to summarize what is provided by, and missing from the various literatures informing my study (as reviewed in the first three parts of this chapter) and describe how my research will contribute to filling that gap.

Part I: Study Rationale and Gaps in the Literature

Contemporary leadership scholars increasingly call attention to the high degrees of complexity characterizing today’s world, the challenges we face as a human community, and the task of leading adaptive change in this environment (Drath et al., 2008; Gray, 2009; Heifetz, 1994; Helsing et al., 2008; Kegan, 1994; Lichtenstein & Plowman, 2009; Pearson,

2012; Uhl-bien et al., 2007; Torbert, 2004; Wilkinson, 2006). Some of these scholars emphasize the many ways in which market globalization, technological advancements, shifting demographics, and other macro-forces combine to produce new forms and sources of complexity. Others use post-positivist research methods (which help illuminate contextual, subjective, and intersubjective aspects of the truth) and post-heroic leadership theories (which conceptualize leadership as a process or activity in which multiple individuals participate) to give greater visibility into the many forms of complexity that are, and always have been, intrinsic to the work of leading change in large social systems. Within this literature, scholars widely conclude that the world needs more leaders who are more capable of meeting the psychological demands associated with the difficult work of leading adaptive change in today's world.

Scholars in this contemporary leadership community who work with constructive-developmental theories of human development contend that *complex thinking*, a particular mental capacity that reflects highly expansive, differentiated, and integrative ways of understanding, represents a uniquely valuable, arguably necessary personal asset for leaders seeking to influence adaptive change in today's world (Berger, 2012; Boiral, et al., 2009; Eigel, 1998; Joiner & Josephs, 2007; Nicolaidis & McCallum, 2014; Rooke & Torbert, 1998; 2005; Torbert, 1994b; Yeyinmen & Rodriguez, 2011). Constructive-developmental theory is a branch of human development theory defined by two overarching assumptions: (a) people apply their personal resources (e.g., thinking, feeling, attention) to actively *construct* understanding of events and experiences and (b) the way people go about constructing understanding has the potential to *develop* over time and through different levels or stages, each of which transcends and incorporates the previous ones and affords the individual more complex and integrative ways of making sense of the world and her experiences within

it (Basseches, 1984; Cook-Grueter, 1999, 2000; Kegan, 1982, 1994; Kohlberg, 1969; Loevinger, 1976; Torbert, 1972, 1987b, 2004).

In the process of developing and working with these theories, scholars have defined distinct levels of thinking complexity and explored in great detail the nature of thinking within these different levels. The specific levels of thinking complexity delineated by different theories in this branch have been mapped together and roughly grouped into four tiers of increasing complexity (Miller & Cook-Greuter, 1994). Stages that map to the *third tier* in this model encompass the thinking processes that are widely argued to be critical for leading change in our complex, twenty-first century society (Berger & Johnston, 2012; Boiral et al., 2009; Kegan, 1994; Rooke & Torbert, 1998, 2005; Torbert, 1987b, 1989, 1994b, 2004; Yeyinmen & Rodriguez, 2011). Throughout this paper I use the term *complex thinking* to refer to ways of understanding that become available with development to this third tier. I use the term *thinking complexity* to refer to the idea that thinking can exhibit different levels of complexity. In Part II of this chapter, I examine the nature and applications of complex thinking as defined by two major theorists in this branch, William Torbert (1972, 1987b, 2004) and Robert Kegan (1980; 1982; 1994). Appendix A shows how the stages of development defined by these two theorists map onto Miller and Cook-Greuter's four tiers.

It's important to note that the capacity for complex thinking is a rare. As such, it is not available as a resource to most leaders. Based on psychometric testing of more than four thousand adults in the US and the UK, researchers estimate that approximately 6-15 percent of adults in these communities have developed tier three levels of thinking complexity, with most of the individuals who have, measuring at the earliest stage in this tier (Cook-Greuter, 2004; Kegan & Lahey, 2016; Rooke & Torbert, 2005; Starr & Torbert, 2005). The same studies suggest that approximately thirty percent of adults in these populations are

positioned to develop these capacities with one additional stage transformation. Notably, the literature suggests that this leap between tiers two and three is one of the most difficult transformations in the overall arc of development (Pfaffenberger, 2005).

Although I explore Kegan and Torbert's theories in detail in Part II of this chapter, as an orienting backdrop for the reader, I offer immediately below examples of some of the different forms that the literature suggests complex thinking can take:

- Dialectical thinking
(Basseches, 1984; Kegan, 1982)
- Multiparadigmatic awareness and trans-systems ideology
(Berger, 2012, Kegan, 1982)
- Interpenetration of self and other
(Kegan, 1982)
- Interpenetration of selves
(Kegan, 1982)
- Holistic understanding/ trans-cognitive awareness
(Cook-Greuter, 1999; Torbert, 1989, 1994)
- Use of metaphor and other analogical forms of thinking
(Nicolaidis, 2008, Torbert, 1989, 1999)
- Generative learning within ambiguity
(Nicolaidis, 2008, 2015)
- Paradoxical thinking and friendliness towards difference
(Kegan, 1982, 1994; Torbert, 2004)
- Long time horizon and multi-historical timeline awareness
(Berger, 2012; Torbert, 2004)
- Seeing connections between seemingly distinct ideas, initiatives, systems
(Berger, 2012)
- Intentional attention, high qualities of attention, integrative awareness
(Torbert, 1989; 2004)

Several research-validated instruments are available to measure an individual's level of thinking complexity at a given point in time (Stein & Heikkinen, 2009; Torbert, 2013). Research using these instruments shows a link between thinking complexity (capacity) and leadership effectiveness measured using a variety of quantitative and qualitative measures such as: profitability; effectiveness ratings; observed approaches to problem solving; success at and approaches to transforming organizations (Harris, 2005; McCauley, Drath, Palus, O'Conner, & Baker, 2006; Rooke & Torbert, 1994a, 1998; 2005). Additional analyses have qualitatively examined the value and purposes of applying complex-thinking capacity in leadership contexts (as described later in this chapter). Based on their comprehensive review of the literature examining leadership applications of three major constructive developmental theories, McCauley et al. (2006) find the evidence for this link to be strong with respect to comparisons between different levels of complexity within tier two. However, they also find that "although the arguments for the added effectiveness of development to [the third tier] are compelling, there is mixed support for this assertion" (p.647). In this same review, McCauley et al. (2006) suggest that the following factors may interact with thinking complexity to affect performance in ways that are not yet well understood:

- Organizational level where complex thinker is positioned (Lewis & Jacobs, 1995).
- Thinking complexity of other people in the environment who interpret the leader's actions though their own lenses could affect both how they understand and respond to those efforts, and how they rate the effectiveness of the leader (Berger & Fitzgerald, 2002 as cited in McCauley et al., 2006; Kegan, 1994).
- The developmental level of the organization itself, meaning the extent to which its culture, structures and practices support ongoing self-reflection and continuous learning (Drath, 1990).

One way to begin deepening our understanding of, and encouraging experimentation with new ways of supporting the relationship between complex thinking and leadership effectiveness is to enhance the empirical foundation available for investigating this link. For example, studies that explore how complex thinking is used in context to understand the issues, identify action options, engage the attentions and ideas of others, or otherwise take up the work of influencing adaptive change (leading) could: (a) provide concrete entry points (e.g., independent variables), and inform study design (e.g., control variables) for future research examining links between uses of complex thinking (vs. just the capacity) and leadership effectiveness and outcomes; and (b) support organizational leaders in better recognizing and supporting the qualitatively different ways of thinking and working carried out by complex-thinking leaders in typical situations.

Highlighting another important variable to consider when examining the relationship between complex thinking capacity and leadership (or other kinds of) effectiveness, Kegan (1994) suggests that the value of thinking complexity as a personal resource is best evaluated relative to the demands of the environment in which a person lives and works. This “psychological curriculum” approach has been used by a number of scholars to investigate fit between the demands of specific kinds of adaptive leadership work and the capacities afforded by development of different levels of thinking complexity. For example, in their theoretical essay, Boiral et al. (2009) provide in-depth descriptions of the values, complexities, and leadership demands associated with the work of environmental leadership. They examine these elements against the ways of thinking and acting associated with different stages of thinking complexity; identify how various activities that are integral to environmental leadership work might intersect with the strengths and weaknesses of each level; and conclude, “Although each stage presents specific characteristics, advantages, and

limitations, [tier three levels of thinking complexity] appear best adapted to the promotion of substantial and proactive environmental leadership”(p.492-3).

Similarly, but focusing on a human rights education context, Yeyinmen & Rodriguez (2011) argue in a theoretical essay exploring intersections between constructive-developmental theory and adaptive leadership theory, that complex thinking capacity can help human rights educators make sense of paradoxical goals and strategies that arise from uncritical application of leadership approaches grounded in critical pedagogy. They list examples of the kinds of adaptive challenges faced by leaders in the human rights education movement and suggest that a more developmentally mature pedagogy for human rights education might incorporate elements from the adaptive leadership framework.

The capacity, or lack thereof, of our leaders to effectively understand and deal with the psychological demands placed on them by such situations as the Watergate scandal, Milgrim’s disobedience studies, and Middle East tensions is particularly impactful in a democracy. Based on their analysis of the leadership dynamics in these situations, Kegan and Lahey (1984) conclude:

The fragility of the American democratic experiment can be found in considering that it is guided by a [tier three complexity] set of principles and only a minority of its adult citizens have themselves reached [this] level of development...It is dangerous enough to democracy to have a followership that is not [tier three]. It can be life threatening when our leadership is not. (p.225)

Providing an example of the specific kinds of demands that leaders in these situations failed to meet they explain, “[complex thinking] at the level of political life amounts to a capacity to transcend an exclusive loyalty to one’s particular faction in confirmation of an ultimate loyalty to the whole” (p.225). Also, Kegan (1994) analyzes the psychological demands placed on leaders by Heifetz and Sinder’s (1988) adaptive leadership

framework and argues that adaptive leadership represents a “post-modern ‘honors curriculum’ for reconceiving the successful leader” (Kegan, 1994, p.322). Specifically, he maps to tier two the leadership ontology represented in most leadership frameworks, which is based on the expectation that the leader will “craft and communicate a coherent vision, mission, or purpose; and...reconcile people to take out membership in, ownership of, or identification with that vision, mission, or purpose” (p. 322). He attributes tier three levels of complexity to the demands placed on leaders who hope to take up and enact the ontology of the adaptive leadership framework, which involves “an exercise of leadership on behalf of providing a context in which all interested parties, the leader included, can together create a vision, mission, or purpose they can collectively uphold” (p.322).

This body of scholarship analyzing the psychological demands of different kinds of adaptive leadership work adds both support and nuance to the argument that complex thinking can serve a particularly valuable function in the process of addressing some of the most conflict-ridden, protracted, and little-understood problems facing our society (and species) today. Just as Boiral et al. (2009) conclude that there is a role to play in environmental leadership for individuals of every level of thinking complexity; so do these other analyses suggest that there might be particular roles, functions, and ways of being within a leadership context that are particularly suited to the merits of the complex thinking role. These analyses lead me, and I assume others, to ask, what does it look like when leaders who have proven successful at leading these kinds of adaptive change take up these kinds of work in their actual work settings? These essays offer clear and compelling visions of what it might look like; they provide hints for where to look and what kinds of things to watch for. When I explore the leadership practices of leaders in higher education is this what I will find?

The field of applied constructive-developmental theory has seen a recent uptick in the number of empirical studies focusing substantively, or exclusively, on examining the development or application of tier three levels of complexity and above (Brown, 2012; Drago-Severson, 2009; Kelly, 2013; Legault, 2010; McCallum, 2008; Nicolaides, 2008). This trend confirms that there is growing interest in deepening our collective understanding of how these ways of thinking manifest in human understanding and actions. Each of these studies contributes valuable knowledge to the field. However none of them are situated in a higher education context, or use an adaptive leadership lens.

The scholar whose work is, perhaps, most similar to that which I am presenting here is William Torbert. Torbert (2004) developed his constructive-developmental theory, *developmental action inquiry* (defined in greater detail in Part II of this chapter), in a context of continual, empirical exploration of experiential learning processes and outcomes. As such many of his earliest publications, while not yet referencing action-logics (his term for stages) or explicitly incorporating the assumptions outlined above as central to the constructive-developmental branch of theory, are relevant to this dissertation because they define and explore concepts that were ultimately incorporated into his theory. Also, these works present findings from his action-research explorations of his own efforts to apply these concepts in natural settings located either within, or in relationship to higher education. Specifically, two of Torbert's (1972, 1976) earliest books draw on findings from his action research studies examining his own efforts to develop and evolve an Upward Bound college readiness program for high school students. His leadership in this situation represents a case of pursuing adaptive leadership from a position of informal authority relative to the higher education system. The findings from these studies inform my thinking about what it looks like, and what happens, when different forms of thinking complexity are exercised in lived

leadership practice. In particular, these books explore in depth what it looks like, and how others respond, when a leader (in this case the researcher himself) experiments with exercising different qualities of attention in the process of carrying out his work, and systematically examines the kind of learning and other outcomes that result.

These books also explore important relationships, which Torbert later develops, between internal practices (e.g., directing attention; holding ideas loosely; deliberately taking a receptive stance) and external practices (e.g., seeking feedback, reframing conversations, developing processes); and between individual qualities of attention (levels of thinking complexity; Torbert's (2004) individual action-logics) and organizational qualities of learning (levels of organizational complexity; Torbert's (2004) organizational action-logics). These connections are relevant to the extent that they direct my attention to both internal and external domains of my participants' practices, as well as to both behaviors carried out by them (actions) and artifacts produced through those actions (structures, processes, practices) as described by them during the interviews or observed by me. The idea that leadership practice can be examined with respect to activities taking place in multiple domains of a leader's experience (attention, understanding, actions in the world, effects on the world) informs the kinds of data I collect, and what I pay attention to in my analysis.

Another early article of Torbert's (1978) informs my study design. In this article, Torbert introduces, defines, and illustrates his "theory of liberating structure" (p.112) (later renamed liberating disciplines), which defines eight essential qualities of organizational structures, processes, and practices that can be used to promote deliberate movement of an organization and its participants toward more shared purposes and collaborative ways of working, while simultaneously supporting the day-to-day work and outputs of the participants. While I do not explicitly set out to examine organizational processes and

structures, I enter the study with the idea that the effects of a leader's activity can extend beyond the immediate context in which that leader acts, and thus design my interview protocols to reflect that assumption. In this article Torbert illustrates the concept of a liberating structure by reporting on the "purposes, plans, implementation, and effects" (p.116) of an undergraduate business school course that he helped develop at the Southern Methodist University School of Business Administration, working from the vantage point of assistant professor at that institution. While he does not discuss thinking complexity in these terms (again, because his thinking about stages of individual thinking complexity had not yet matured), he provides illustrations of a higher education leader (himself) making efforts to implement the kinds of thinking and acting that he and others later associate with tier three stages of complexity, such as awareness of the constructed nature of reality and deliberate use of irony to simultaneously acknowledge, and adjust people's entering assumptions. Kegan and Lahey's (2016) work on Deliberately Developmental Organizations offers another perspective on the features of an organization that can promote deliberate and ongoing development of its participants, offering another point of intersection between Kegan and Torbert's work that was arrived at via completely different paths, yet landed in similar places (the first being their respective staged theories of human development).

Several additional action-research studies conducted by Torbert (1969, 1973, 1981a, 1981b; Torbert & Hackman, 1969) examine his on-the-ground efforts to carry out organizational interventions in higher education settings. These interventions could be interpreted as both incidents of adaptive leadership and action-manifestations of the exercise of complex thinking, although he does not explicitly name them as such given that his theory was a work-in-progress. For example, in one case (1981a) he describes a series of successive classroom interventions made by members of the teaching team he was part of, which (a)

serve the adaptive function of directing attention to a gap between the content of the presentation being delivered by the professor, which emphasized the value of approaching the course from an active, experimental stance, and the traditional, presentation format being used to deliver the message and (b) reflected the use of a reframing strategy, which Torbert (2004) later argues is informed by awareness of the constructed nature of reality and a desire to create shared interpretive frames.

In another (1981b) Torbert engages in a series of organizational interventions aimed at transforming the graduate school of management for which he is serving as associate dean at the time. I suspect, although I haven't done it, that if I were to apply Kelly's (2013) four criteria for assessing developmental attributes of historical data (perspectives, timeframe, feedback, use of power), I would find support for the hypothesis that Torbert draws upon complex thinking in the process of carrying out these interventions and associated reflections. Thus these early studies can be thought of as action-research investigations of an (arguably) complex-thinking leader in a higher education context. Notably, his use of action-research to conduct these studies at a time when the method was not yet an established (i.e. academy legitimized) method speaks to another way in which this work can be thought of as being situated within (or in this case in relationship to) higher education. Through his research practices (in this case both the content of his publications and his choice of method) he sought to transform the boundaries of social science by expanding them to better integrate the experiential realm. Some of his later publications describe these aims and interventions in more explicit terms (for example see Torbert 2000a, 2000b, 2000c; Chandler & Torbert, 2003; Reason & Torbert, 2001).

Many of Torbert's later action science studies are situated in corporate settings, and thus are less directly relevant as illustrations of how complex-thinking higher education

leaders act in context (Fisher & Torbert, 1995; Torbert, 1987b, 1995, 2004). However, by this time Torbert's theory, developmental action inquiry, was better articulated, and thus these and later works become relevant as reference points for defining the nature and application of complex thinking as defined by this theory (and detailed later in this chapter). Notably, as Torbert's theory matured, his use of this frame to design and describe the results of his research became more explicit. This shift represents both an aid and a thwart to researchers, such as myself, seeking to use these studies to deepen our understanding of the nature of leadership practices informed by complex thinking. It is an aid because it allows researchers to more explicitly identify the interventions as applications of different forms of complex thinking as defined by Torbert's theory. At the same time, it is a thwart because many of the specific interventions being studied represent Torbert's deliberate efforts to transform situations, groups, or organizations in ways that are defined by his own individual or organizational development theories. While this research is extremely valuable for continuing to test and develop his theory (a major contribution to the field; among other reasons), it is less useful for deepening understanding of how leaders who have never been exposed to Torbert's ideas pursue adaptive work with the aid of complex thinking. The excerpt below taken from Torbert's (2004) book illustrates the self-referential quality that sometimes creeps into Torbert's explanations of complex thinking:

A principal feature of the *Strategist* action-logic is self-awareness in action. It not only intuitively recognizes other action-logics and itself as action-logics, as does the *Individualist*, it also intuitively recognizes all actions as either facilitating or inhibiting ongoing transformational change of personal, familial, corporate, or national action-logics. (p.104)

While those familiar with Torbert's work likely recognize that you can replace "action-logics" with something more generic like "ways of understanding" or "motivations for action" or "world-views" or "social paradigms" in which case this statement becomes

more applicable outside the context of Torbert's developmental action inquiry, the self-referential quality of his analysis at times raises questions about how the strategist (and other tier three) level(s) of thinking complexity might manifest in the thinking and actions of a leader who has never been exposed to the particular developmental theories Torbert incorporates into his descriptions. What language, constructs, and ways of thinking about the current and potential future state of a situation, organization, or field might a complex-thinking leader use to guide his or her action if not in terms of the specific stages of organizational development proposed by Torbert? I am not aware of any other research that uses a constructive developmental lens to examine the adaptive leadership practices of higher education leaders in context.

In sum, a sizable and growing research base exists examining leadership applications of constructive developmental theory. However, most early studies focus on exploring differences between stages in tier two or examine qualitative or quantitative links between complex thinking *capacity* and various behavioral, effectiveness, and outcome measures. Recent years have shown an increased focus on exploring the nature and benefits of tier three complexity in particular, highlighting expanding interest in further exploring not only the existence of this link but also how it operates. However, few empirical studies have examined how specific qualities of complex thinking manifest in leaders' thinking and acting on the ground and even fewer have focused such work exclusively on the highest levels of thinking complexity. To my knowledge, with the exception of Torbert's action research described earlier, no empirical studies examining how complex thinking is used in leadership practice have been situated in the higher education context.

Part II: Theoretical Framework²

Reviews of the literature developing and applying two major constructive-developmental theories.

Guiding question: What is complex thinking and how might it shape leadership behavior?

In this section, I outline key tenets of two major constructive-developmental theories: Kegan's subject object theory and Torbert's developmental action inquiry. The constructs defined in this section provide a basis for discerning when complex thinking is being exercised, and thus serve as entry points for examining *how* this mental capacity is being used by my participants to inform their understanding, decisions, and actions on the ground. I work with two distinct, yet compatible constructive-developmental theories because doing so provides a more expansive set of entry points for identifying the phenomenon I seek to study in action (complex thinking), enables theoretical triangulation during data analysis, and counters the trend toward increased fragmentation of the applied constructive-developmental theory literature along theoretical lines.

I select the theories of Kegan and Torbert in particular because these two theories meet the following four criteria:

1. The theory is domain general, providing a substantive account of how some central psychological structure drives growth that cuts across all domains of human experience. This makes the research potentially more relevant outside the specific context being studied, which supports the potential for theoretical generalization.

² Much of Part II is drawn, largely unchanged, from my qualifying paper (Yeyinmen, 2013).

2. There is a well-validated diagnostic tool available to assess development as conceptualized by the theory. This supports my intent to use this conceptual framework in future empirical research.
3. The theory is robust in its description of the highest level of complex thinking capacity, as this is the central focus of my study.
4. The theory or literature using the theory discusses leadership applications. This will provide context-relevant entry points for my investigation.

The nature of complex thinking as defined by Kegan's subject-object theory.

Kegan's *subject-object theory* (Kegan, 1980, 1982, 1994, 2000) is a theory of human development grounded in the field of psychology—particularly the work of Jean Piaget. Like other neo-Piagetian theories, it extends Piaget's investigation of human development beyond adolescence into adulthood. It also extends Piaget's work beyond the domain of cognition to the broader field of knowing, which includes thinking, feeling, and perceiving (Kegan, 1994). The central ideas in Kegan's theory are described below and used to delineate the nature of complex thinking as conceptualized by literature using this lens.

Organisms organizing and being organized.

Subject-object theory holds that human beings, like all living organisms, continually seek greater coherence of their organization (Kegan, 1982). This impulse provides a motive for human development as the developing person attempts to “make sense” of the increasing volume and diversity of information and experiences generated through her interactions with the world. Although it would be easy to interpret this as a primarily internal process undertaken by a person to understand what is “out there” Kegan (1982), embracing Piaget's vision, describes it differently:

Rather than locating the life force in the closed individual or the environmental press, [Piaget's model of development] locates a prior context which continually elaborates the distinction between the individual and the environment in the first place...it does not place an energy system within us so much as it places us in a single energy system of all living things. Its primary attention, then, is not to shifts and changes in an internal equilibrium, but to an equilibrium in the world, between the progressively individuated self and the bigger life field, an interaction both sculpted by and constitutive of reality itself (p.43).

Location of the life force in the interaction between the individual and its environment distinguishes subject-object theory from neo-psychoanalytic and existential-phenomenological theories, which position that force within the individual (Kegan, 1982), and behaviorism, which places emphasis exclusively on the role of the environment in shaping the behavior of the individual (Chance, 2009). This dialectical rendering of the relationship as prior to its constituent parts (Basseches, 1984) is particularly relevant for examining how paths of mutual influence operate between the higher education system and complex-thinking individuals participating in (and in part defined by) that system. For example, it suggests that complex-thinking leaders not only use their capacities to operate on the system, but also pay attention to, and learn from, the ways in which the system is operating on them.

Subject-object relationship.

According to subject-object theory (Kegan, 1982, 1994), the way a person understands different aspects of the world is related to the way she constructs her "self" in relation to the larger set of systems and dynamics comprising the world. This construction of self and world is described as the subject-object relationship. The *subject* refers to those aspects of reality that the individual experiences as part of the "Self" or "I". They are aspects in which the person is embedded and that she unconsciously uses in the process of making sense of her experiences. A person cannot see, reflect on, take responsibility for, or control

these aspects of reality. They include all of her taken-for-granted assumptions about the nature of her Self, other people, the world, and interactions among these; these assumptions are unconsciously held as objective “truths” that cannot be questioned or modified. They are the invisible tools she unknowingly uses to make sense of her experiences and envision possibilities (Kegan, 1982, 1994; Lahey, Souvaine, Kegan, Goodman, & Felix, 1988). The *object* refers to the remaining aspects of reality that are experienced by that individual – the “not ‘I’”; it includes all that has been differentiated from the Self. These aspects of reality are no longer experienced as preexisting, objective, unchangeable truths. A person can see, reflect on, take responsibility for and control them. The object includes assumptions that person holds conditionally, consciously, and with knowledge that they may be or become untrue as time passes or conditions shift. It represents the tools that person consciously uses to make sense of experiences such as by questioning, testing, and molding them to bring greater coherence to her understanding or otherwise achieve her aims (Kegan, 1982, 1994; Lahey et al., 1988).

Development through orders of consciousness.

The form of a person’s subject-object relationship, also called the subject-object balance, develops over time and with the right conditions. This development occurs through a process of equilibration in which the existing structure is used to integrate new experiences into a coherent organization or meaningful whole (assimilation) until this structure can no longer handle the variety and complexity of information it receives, at which point the structure can transform to achieve a new subject-object balance (accommodation), that is more capable of organizing and integrating a larger, more diverse, more complex, set of information and experiences (Kegan, 1982). The degree of organizing complexity reflected in a person’s current subject-object balance (and determining the type and quality of

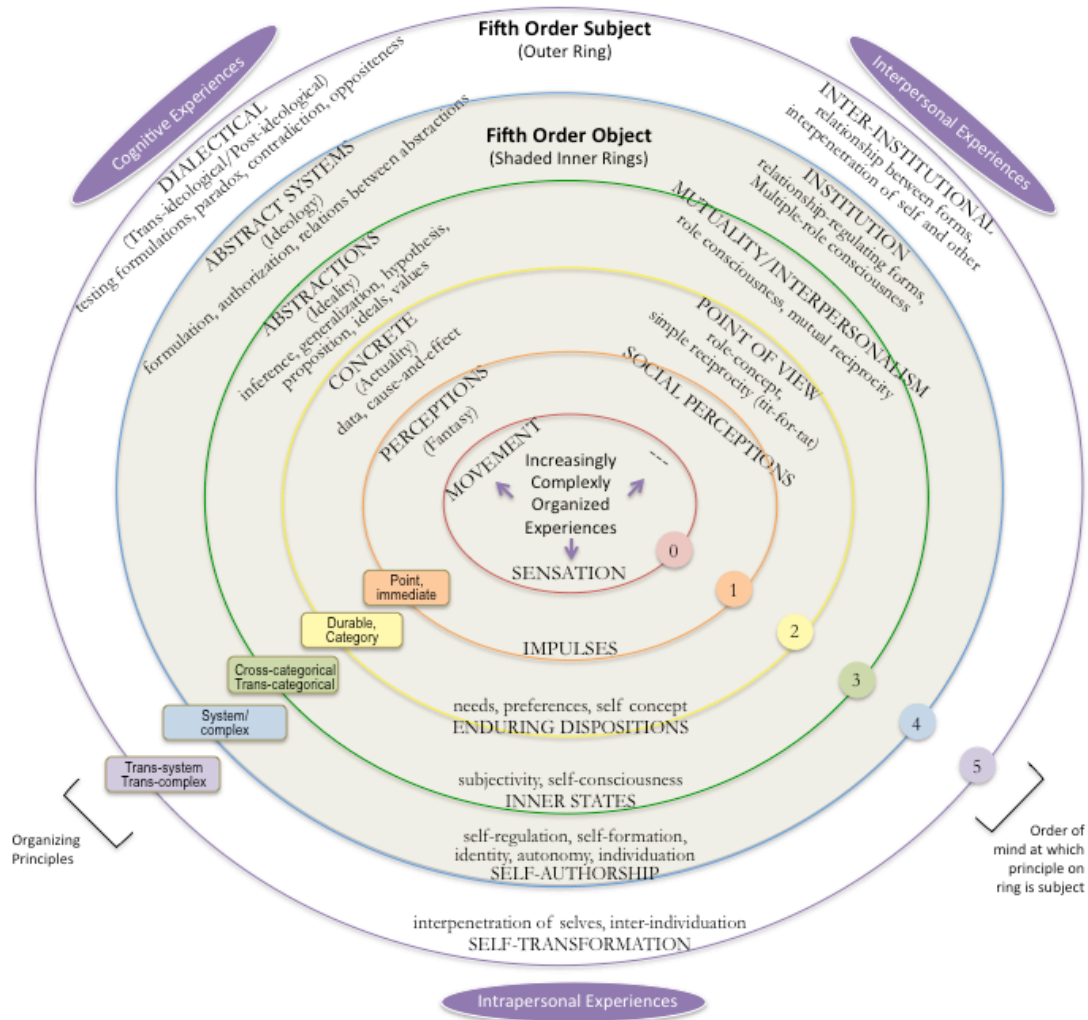
experiences that her existing structure can “handle” or assimilate) is determined in part by the complexity of the highest level organizing principle available to her for making sense of her experiences, and in part by the extent to which she has fully differentiated her Self from the next most complex organizing principal and reintegrated it into her overall sensemaking process. More specifically, each accommodation, or transformation of the subject-object balance involves: (a) differentiation of the Self from the experiences understood using the organizing principle that was subject at the previous order (experiences using this principle begin shifting from subject to object); (b) development of a more complex organizing principle to be used in organizing experience (experiences organized using this principle becomes the new subject); and (c) more complete integration of the newly shifted object experiences into the larger set of experiences which were already in the object position.

To explain more concretely how development of the central organizing capabilities manifests in human experience, subject-object theory articulates three *lines of development*: cognitive, interpersonal, intrapersonal.³ Specifically, the cognitive line describes organizing activity as it manifests through the thinking process (e.g., logic of cause and effect, abstract ideas such as values, ideology). The interpersonal line represents organizing as it manifests through understanding of relationships to other people (e.g., roles, relationships). The intrapersonal line describes how organizing manifests through understanding of the self and its attendant processes (e.g., affect, identity) (Kegan, 1994). Accordingly, as a person develops more complex ways of organizing reality, her understanding in each of these three domains reflects a greater degree of complexity and becomes more integrated across domains.

³ Unlike some other developmental theories, which use the word “lines” to postulate multiple, domain-specific structures underlying development, subject-object theory uses this word to describe different domains of experience that are made sense of using the single organizing structure: the subject-object balance.

Subject-object theory outlines six (starting with zero) subject-object balances that a person can move through, in order, in the course of developing. Kegan refers to these different stages of development as *orders of consciousness* because each new balance incorporates a set of higher order organizing principles embodying a greater degree of complexity. Figure 1 below provides a visual representation of the most complex subject-object balance—the fifth order—in the context of development through the earlier orders.

Figure 1. Fifth Order Subject-Object Balance in Evolutionary Context.



I designed this figure using content from Kegan's (1982, 1994) books to illustrate how with each stage transformation (new order of mind) the self becomes larger, or more

capable of seeing and organizing more aspects of reality. The capitalized text shows how experiences in each domain are organized with increasing complexity at each order. The text sitting just inside the outermost concentric oval (Self-transformation, Dialectical, Inter-institutional) indicates how experiences in the different domains are organized with the trans-system/trans-complex organizing principle, which is *subject* for individuals at the fifth order. Thus, a fifth order individual can have experiences of understanding the world in these ways, but cannot stand back and reflect on her process of constructing those experiences. On the other hand, the capitalized text appearing just inside each of the inner concentric circles (those within the shaded area of the diagram) indicates all the ways of organizing experience in the three domains that are *object* to fifth order individuals. Experiences organized in these ways are available to these individuals to be seen, reflected upon, deconstructed, or otherwise consciously used in the process of making sense of a situation, group, or other phenomenon.

Notably, Kegan (1980) emphasizes that the framework “is not fundamentally about stages” (p. 374); rather the stages are developmental milestones in a process. As such, subject-object theory gives as much emphasis to the transition between major stages, as it does to the stages themselves. Specifically, Kegan defines four transitional milestones between each two major stages, starting with stage 1. Including these transitional milestones, (and starting at stage 1) Kegan defines twenty-one distinct subject-object balances that can be identified as the prevailing epistemological structure operating within a person.⁴ I pause here to take a closer look at how the process of development through equilibration (described earlier) relates to movement through these transitional milestones.

⁴ Stage 0 and transition stages between 0 and 1 are not counted among the 21, as they cannot be identified using existing measures (e.g., subject-object interview).

Imagine a developing person who is currently making sense of the world in a way that reflects any fully equilibrated subject-object balance (i.e., any full stage) between 1 and 4.⁵ In other words, the most complex organizing principle available to that person (which is identified using the same number as the stage) is fully developed, and less complex organizing principles have been fully integrated into the object position. For the purposes of this explanation, call the organizing principle associated with this fully equilibrated stage X. Through the process of equilibration described earlier, with development, the person's Self first becomes differentiated from this (now becoming) less complex organizing principal, X, to which the person was previously subject, and increasingly makes sense of the world in ways that reflect integration of that prior subject (operating principle) into the new, more complex system treated as separate from the Self (object) by the next more complex organizing principle, call it Y (now experienced as the Self), where X and Y are adjacent organizing principals in the universal progression (or associated major stages in Kegan's theory, say 4 and 5). This differentiation and integration happens gradually, moving through distinct transition phases before the individual arrives at the next full stage (fully equilibrated subject-object balance), or order of consciousness.

In the first transition phase, which Kegan defines as $X(Y)$, one begins to realize the limits of the less complex organizing principle, X, sensing that there is a more complex way of making meaning, Y, but is not yet able to employ Y in a substantial or consistent way. At this transition stage, the individual begins be able to reflect upon the earlier organizing principle X, and can begin operating on not only aspects of experience made sense of using that principle, but also the process of using that principle to make sense of experiences. In the second transition phase X/Y , the subsequent organizing principle, Y, takes on a less

⁵ Although transition stages have been defined between 4 and 5, stage 5 cannot be used as the starting point in this example because there are no stages defined beyond that.

rudimentary form and becomes available for more regular participation in meaning-construction, although it is used primarily in service of the aims of the previous principal, X, and the individual remains subject to (unconscious of) her use of this principle. In other words, she can use it and operate on the outputs of this organizing process, but cannot yet see, or operate on, the process itself. In the third transition phase, Y/X , the more complex principal, Y, becomes primary, bending the prior principal, X, to its aims, but the person does not yet have full control over, or awareness of that process. In the fourth transition phase $Y(X)$ the more complex operating principal, Y, is predominantly used to organize meaning, however the person is constantly on guard against slipping into the prior, less complex way of organizing, X. Once X has become both fully differentiated from the Self and fully integrated into the person's 'object-ive' system of making meaning, the person is considered to be "at" or "of" the next order Y (Lahey et al., 1988). Thus, development beyond the most complex, fully equilibrated subject-object balance in the second tier (Stage 4) proceeds through the following milestones (here including fully equilibrated stages on each end) 4, 4(5), 4/5, 5/4, 5(4), and finally 5. Stage 4 is considered the most complex milestone in tier two. Sub-stage 4(5) is the first weigh station within tier three.

Paradoxically, with each expansion of a person's Self, the Self actually appears smaller to that person in relation to the rest of the world. This is because as a person's Self becomes larger, so does that portion of reality that she can perceive. This idea that the ego-Self diminishes through development to the point where, ultimately, it ceases to exist as a separate entity and becomes reintegrated into a unified reality representing all and everything, is consistent with other constructive developmental theories (Brown, 2012; Cook-Greuter, 2004) and certain religious philosophies. In practical terms, when a leader sees less distinction between herself and the world her interest in "what is good for *me*" and

“what is good for *the rest of the world*” can become blended into a single motivation for orienting action. This notion is supported by empirical research. For example, in his study examining how thirteen complex-thinking leaders design sustainability initiatives, Brown (2012) found that the two participants with the highest levels of thinking complexity (Torbert’s *ironist* level) designed “as the system;” the five participants with the next most complex levels of thinking complexity (Torbert’s *alchemist* level) designed in “‘dialogue’ with systems”; and the six participants with the least mature levels of tier three complexity (Torbert’s *strategist* level) tended to “operate *on* systems.”

In sum, subject-object theory holds that: at a specific moment in time, a given individual’s organization of experience embodies a particular *subject-object relationship* that makes available to her constructs, or sets of organizing principles, of particular levels of complexity, to be employed consciously or unconsciously in the process of organizing experience. Compared to less developed individuals, complex thinkers have 1) consciousness of a larger scope of experiences (spanning more degrees of complexity) contributing to a more comprehensive field of reality across which coherence of organization is intentionally sought; 2) access to a more complex set of organizing principles that can be unconsciously applied in their efforts to organize meaning coherently; and 3) different fundamental psychological motivations for action stemming from the different meaning of “coherence” for a “Self” as large as that representing the fifth order.

Although these three types of capacities are theoretically distinct, in lived reality they can interact in important ways, in part mutually constituting each other and in part employing each other in their operations. Kegan (1982) and Torbert (2004) both acknowledge that during the transition from the fourth to fifth order of mind, differentiation from the systems complex occurs first with reintegration of this process occurring only later

with development of the trans-system capacity. Torbert (2004) calls the earlier, more differentiated position the individualist stage and Kegan refers to it as a deconstructive sub-stage between the full fourth order and the full fifth order. As such, while trans-systems complex organizing uses systems complex organizing in its operations, the reverse is not true. Basseches (1984) similarly argues that dialectical processes are a distinct, more developed psychological capability that (sometimes) emerges after differentiation from one's personal ideology.

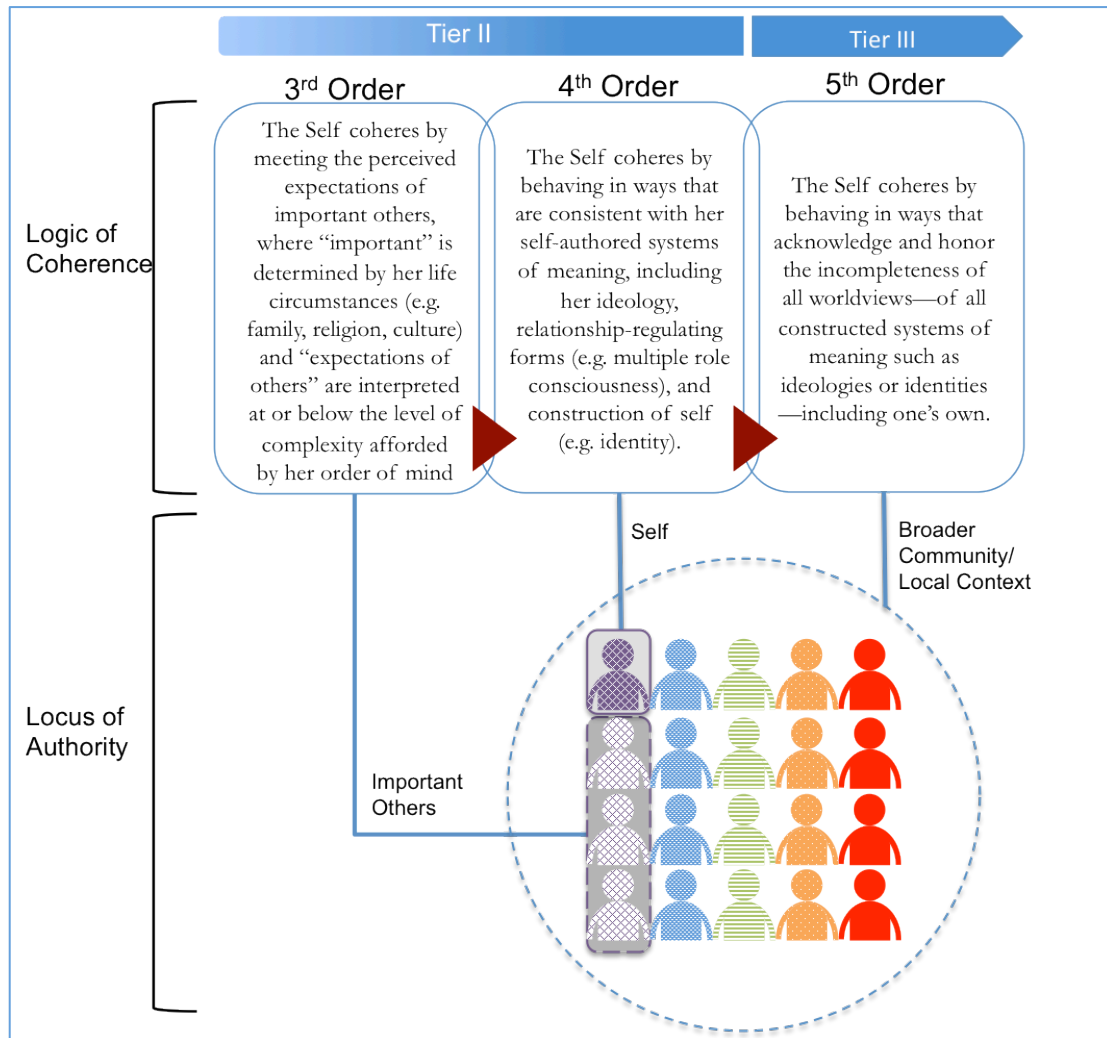
Fundamental motivations for action: Logics of coherence and locations of authority.

Earlier I mentioned that, according to subject-object theory, the commonly held desire to seek greater coherence of one's organization provides a fundamental motive for human development. This theory also holds that people's decisions and actions in the world are fundamentally motivated, and significantly informed, by this desire to cohere. Notably, the *way* in which they seek and define this coherence changes with each developmental transition. Specifically, each transition brings a shift in the *logic* of coherence, or the fundamental psychological goals and motivations underlying their choices and actions. For example, fourth order individuals seek coherence through actions that promote internal consistency, including consistency between different elements of their worldview, and between what they believe and how they act. Fifth order individuals, on the other hand, seek coherence through actions that honor the incompleteness of all worldviews. Also, different logics of coherence locate authority in different places. The fifth order logic locates it in the community or system; in the combined objective-subjective reality that constitutes the evolving lifeworld and our co-constructed understanding of it. Underscoring the role of context in shaping how authority is sourced from this broader system/community, Berger (2012) points out that for the post-conventional individual, "authority is fluid and shared,

and is not located in any particular person or job. Rather, authority comes from the combination of the situation and the people in the situation. A new situation (or different players) may cause a shift in where authority is located” (p. 19).

In contrast, the less complex fourth order logic of coherence locates authority in the developing individual, in her self-authored understanding of the world. Individuals at this order consciously take in and evaluate the many conflicting messages from external sources and apply independent judgment to interpret, evaluate and prioritize these messages. They rely on themselves as the final judge and mediator of what is good and true. Exhibiting even less complexity, the third order logic of coherence locates authority in the somewhat narrowly defined community of important others who have participated most directly in the person’s learning and socialization. This may include people in her direct sphere of influence such as family, or it may include broader identity groups such as members of her race, class, culture or gender, or groups with authority over her life, such as political leaders or the media. Individuals at this order unconsciously internalize messages from these sources and often feel torn and anxious when these messages conflict with each other. Figure 2 below shows the logic of coherence and associated locus of authority for Kegan’s third through fifth orders of mind. For a more detailed description of how these constructs change with development see Kegan (1982, 1994).

Figure 2. Fundamental Motivations for Action: Logic of Coherence and Locus of Authority at Kegan's Third through Fifth Orders



Source: Original design based content in Kegan, 1982, 1994

Kegan points to the value of complex thinking for motivating certain types of leadership activity. For example, he and others using his theory suggest that complex thinking can support people in carrying out the following types of leadership activity:

- “*Providing a context* in which all interested parties, the leader included, can *together* create a vision, mission, or purpose they can collectively uphold” (Kegan, 1994, p. 322).

- Celebrating the richness of conflicting perspectives and holding paradoxical truths (Basseches, 1984; Berger, 2012; Burbules & Rice, 1991; Kegan, 1994).
- "Tak[ing] action against one's special-interest group on behalf, not of some other group, but of the bigger community of persons to which *all* special-interest groups are relativized" (Kegan & Lahey, 1984, p.224).
- "Helping to harmonize multiple conflicting points of view when entertaining possible goals, pathways toward achieving them, and issues under discussion" (Drago-Severson, 2009, p.79).

Berger and Johnston (2012) draw on their experience applying Kegan's theory in a leadership development and executive coaching context to point out that because post-conventional individuals are able to see more of what is going on in the system, and can make sense of it in more complex ways, they are particularly well suited to leadership roles that involve visioning, people management, and task management responsibilities of very large scale and scope. More specifically, post-conventional capacities support the ability to: (a) develop visions that span years to generations; (b) manage teams that include both clearly bounded groups of people (employees and clients, and possibly local communities and governments) *and* the broader global community and the environment; and (c) manage tasks that involve greater dynamic complexity and take place in contexts characterized by more nonlinear, unpredictable cause-effect relationships. Berger (2012) describes a number of additional ways that complex-thinking capacity is likely to shape leaders' understanding and actions on the ground. A sampling of these descriptions is provided in Table 1.

Table 1. Characteristics of Complex-Thinking Leaders as Described by Berger (2012).

Complex-Thinking Characteristic	Page
“Draw patterns out in a wide variety of ways.”	131
“Can have a hard time remembering that others don’t see [patterns].”	131
“Difficult for them to see polarities [because] everything becomes connected to its opposite.”	131
“Naturally think across a longer time span or carry a perspective that circumstances can evolve to be very different over time in unknowable ways.”	144
“Naturally take multiple perspectives and can see how their ideas, hopes, and values are represented in the perspectives of even those who are very different. They can therefore hold the divergent perspective of different stakeholders and find the larger patterns of agreement, disagreement, and multiple commonalities among the different groups.”	144
“Less likely to believe in linear cause-and-effect ideas in general, turning their attention more naturally to nonlinearity and emergence.”	144
“Likely to have complex notions of control in general and to believe that control is likely illusory.”	144
“Have learned the limits of their own inner system—and the limits of having an inner system in general.”	186
“See across inner systems to look at similarities that are hidden inside what used to look like differences.”	186
“Less likely to see the world in terms of dichotomies or polarities.”	186
“See connections everywhere.”	186
“Able to look at an issue from multiple sides and see the ways that the different perspectives overlap.”	186
“Constantly working to grow, to question their own assumptions, to understand and cope with greater and greater amounts of complexity.”	186

The nature of complex thinking as defined by Torbert's developmental action inquiry.

Developmental Action Inquiry (DAI) (Fisher & Torbert, 1995; Rooke & Torbert, 2005; Torbert, 1972, 1976, 1987a, 1987b, 1989, 1991, 1994a, 1999, 2004; Torbert, Livne-Tarandach, McCallum, Nicolaides, & Herdman-Barker, 2010) is an integrated theory of human, leadership and organizational development rooted in the experiential learning paradigm of action-science (Argyris, 1983; Torbert, 1976). As a multilevel theory it describes the factors promoting development at individual, group, and social systems levels. Its aims at these three levels are defined as: integrity of individuals, mutuality among individuals, and sustainability of social and ecological systems (Torbert, 2004). The defining features of DAI are described below with an emphasis on explicating the nature of complex thinking capacities.

Simultaneous action and inquiry.

The essence of action inquiry, both as a leadership practice and as a theory of human and organizational development, is *learning through inquiring in the midst of action*. By emphasizing the simultaneity of action and reflection, DAI distinguishes itself from other theories of learning in the action science tradition, which advocate cycling between action and reflection (Torbert, 2004). In DAI, the “action” is oriented toward changing the world in some way and the “inquiry” is oriented toward raising the possibility that the actor herself must also change—right now. Torbert (2004) explains: “Action Inquiry is a way of learning anew, in the vividness of each moment, how best to act now. The source of both its difficulty and potential is that action inquiry requires making ourselves, not just others, vulnerable to inquiry and to transformation” (p.2). Empirical research suggests that post-conventional action-logics make it more possible, more productive, and (sometimes) more pleasant to open oneself up to this type of vulnerability, which has clear implications for

leading change in an adaptive context characterized by shifting and conflicting goals (Torbert, 1994b, 1996). Case studies of complex-thinking managers and executives also illustrate how exhibiting such vulnerability can make possible more *timely* actions and interventions as it allows learning and behavioral adjustments to occur in real time (Starr & Torbert, 2005; Torbert, 1989, 1996, 2004). This potential for self-transformation is also described by Kegan (1982) and Basseches (1984) as a uniquely post-conventional capacity.

Four territories of experience.

DAI defines four distinct territories of experience, or aspects of reality that can potentially be experienced by human beings (directly) and social systems (more indirectly). The theory holds that people and organizations inherently strive to coordinate and align their experiences across these territories in order to generate existential integrity in action. This assumption outlines an implicit motive for human development akin to Kegan's desire to cohere. Torbert refers to these territories as the *deep four* to emphasize that they extend beyond cognition to involve direct experiences of the world. These territories are described (and experienced) as follows (Torbert, 1994a, 2004; Torbert et al., 2010):

1. *Outside world:* The world that exists outside of and apart from the individual; includes the results of one's own and other people's actions as seen from the outside, sights, sounds, and other observable phenomena.
2. *Own sensed embodiment and performance:* The inner and outer functioning of one's body as it can be sensed by the individual; includes one's own behavior, breathing, moving, perceiving, skills, patterns of action as sensed from within.
3. *Action-logics:* cognitive/affective structures (which develop through universal stages); operationally includes dynamic outputs of those structures including such things as models, maps, values, beliefs, feelings.

4. *Intentional attention/transcognitive consciousness*: A “presencing awareness,” intuition, or the source of one’s own attention; can be experienced through practices such as action inquiry, mindfulness, prayer, or meditation; at later action-logics it can be distinguished from the other three territories and can experience all three simultaneously.

Torbert (1994a) notes that in a given moment, one’s attention can be focused on the territories in one of three ways: “1) predominantly, or alternatively, on any one of the [first] three territories...; or 2) on analogies or incongruities among any two of the [four]; or 3) unitively on the simultaneous coexistence and interplay among all four territories...” (p.182). Moreover, he holds that these three ways of focusing attention evolve sequentially over time. Specifically, DAI suggests that human development unfolds through a process of gaining consciousness, control, and ultimately coordination and integration of one’s own experiences across an increasingly large swath of latent reality as defined by the four territories. First, in moving through early (tier 1) stages of development, an individual gains increasing knowledge and control of the first territory—the outside world. Second, in developing sequentially through stages in the second tier, the individual additionally gains: first, knowledge and control⁶ of the second territory—her own sensed performance or behavior; next, knowledge and control of the third territory—her own cognitive/affective structures; and finally, “hypothetical reasoning that coordinates these three territories” (Torbert, 1994a, p.183). Finally, in developing to the third tier, an individual additionally develops both (a) knowledge and control of her experiences in the fourth territory—the *intentional attention* or *source of attention*, and (b) the ability to coordinate and integrate experiences across all four

⁶ By “control” I do not mean the person can dictate what experiences she will have, but that she can make intentional efforts to shape, employ, learn from, or otherwise interact with those experiences she sees.

territories simultaneously, a capacity Torbert refers to as an *integrative quality of awareness*. An individual's experience of the fourth territory represents a type of “trans-cognitive awareness.” It is *trans*-cognitive because it is experienced “not as a hypothetical possibility in the thinking territory but as a vivifying reality in the present moment” (Torbert, 1994a, p.183).

Torbert (1994, p.185; citing his own and others' work as noted below) suggests that the capacity for an integrative quality of awareness affords individuals recognition of the following:

- The uniqueness of relationships and contexts (Gilligan et al., 1990);
- The importance of timing (e.g., finding teachable moments) and placing (e.g., creating unique market niches) in relational, organizational, and social initiatives;
- The multiplicity and relativity of different frames or paradigms (Perry, 1970);
- The dilemmic (rather than problematic) and paradoxical (rather than well-defined) nature of social life (Basseches, 1984);
- The primacy of integrative, analogical, or metaphorical thinking (over analytical, deductive thinking) in comparisons across territories of experience (Torbert, 1989); and
- Inquiry as a primary life-value—as a political type of action, a spiritual type of search, and an aesthetic taste—not just as a scientific, intellectual value secondary to some answer; inquiry as primarily action inquiry and only secondarily as reflective inquiry (Torbert, 1991).

1st, 2nd, and 3rd person fields of inquiry and action.

DAI also distinguishes 1st-, 2nd-, and 3rd- person fields of inquiry and action encompassing both: (a) who is doing the inquiring, or 1st-, 2nd-, 3rd-person *inquiry/voice*, and

(b) who or what's behaviors or behavioral outputs are the target of that inquiry, or 1st-, 2nd-, 3rd-person *action*. According to DAI the three dimensions of inquiry/voice and three dimensions of action can be combined in various ways, and can occur with respect to different time dimensions (past, present, and future) to produce twenty-seven distinct varieties of action-inquiry: (three types of voice) $\times$ (three types of practice) $\times$ (three dimensions of time) = twenty-seven types of action research (Chandler & Torbert, 2003).

The purpose of dividing activity in this way is to encourage a process for growing understanding that expands beyond what is often reported on in the literature and is often defined as *evidence-based research*, which is 3rd-person inquiry (using objective measures to evaluate effectiveness) into 3rd-person practice (the effectiveness of someone else's practice or practice outputs). There is growing recognition in the education literature of the need for such expansion (Mehta, Gomez, & Bryk, 2012; Thomas, 2012; Torbert, 2000a; Weis & Fine, 2012). Empirical studies suggest that complex thinking can facilitate engaging in types of inquiry and practice that span a wider scope of possibilities as defined by this model. Moreover, these studies suggest that the practice of effectively interweaving these different types of inquiry can lead to more timely and transformative interventions (Torbert, 2004).

Reflecting its integral nature, DAI includes a mapping of these three fields of inquiry/action onto the four territories of experience described earlier, thus providing a heuristic for the process of examining, and enacting, efforts to align experiences across these structural levels in the context of daily practice. This heuristic is shown as Table 2 below and interpreted in Appendix B.

Table 2. Torbert's Depiction of How Four Territories of Experience Manifest Themselves in Three Fields of Inquiry/Action.

Territory of Experience	Field of Inquiry/Action		
	<i>First-Person Attention</i>	<i>Second-Person Speaking</i>	<i>Third-Person Organizing</i>
1. Outside world	Effecting/Perceiving	Inquiring	Assessing
2. Sensed embodiment	Sensing/Behaving	Illustrating	Performing
3. Action-logic	Thinking/Feeling	Advocating	Strategizing
4. Intentional attention	Intending	Framing	Visioning

Source: Torbert, 2004, p.39 Figure 3.1 (headings adapted)

Single-, double-, and triple-loop learning.

DAI (Torbert, 2004; Torbert et al., 2010) holds that the process of seeking alignment is a process of learning that involves perceiving a gap between two or more territories, inquiring into the nature of the gap, (then or while) acting on the world to try to close the gap, and assessing the result. The quality of learning experienced through this process differs depending on the number and nature of territories involved in the inquiry and action. For example, as noted above, less complex-thinking individuals are more likely to focus on noticing and eliminating gaps between the first two territories—behavior and outcomes. This is the lowest quality of reflection and generates an instrumental type of learning that involves assessing outcomes against intended goals and adjusting behavior as necessary to achieve the predefined goals. This reflective learning process is referred to in the organizational literature as single-loop learning and it is capable of producing first-order change, or changes to patterns of behavior.

Double-loop learning, on the other hand, requires addressing a gap's between one's behaviors or desired outcomes and success in achieving one's goals by inquiring into the goals themselves, along with the values and beliefs that keep them in place. This involves a

higher quality of reflection in action compared to single-loop learning. Double-loop learning can lead to adjusting one's values or underlying assumptions, often resulting in re-definition of intended goals or possibly a shift to a new paradigm. These types of changes are referred to as second order changes. According to DAI, double-loop learning becomes possible only when a person's awareness expands to incorporate the third territory of experience described above. As such, regular exercise of this form of learning represents a type of complex-thinking capacity.

Finally, triple-loop learning is produced by the highest quality of reflective learning, the "simultaneous awareness of all 4 territories of experience...It can be called presencing (Senge et al., 2004) ...[it] occurs in any moment when there's an attention distinct from the mental thinking, from the physical sensing, and from the objects of perception, infusing them all with an immediacy that is at once passionate, dispassionate, and compassionate" (Starr & Torbert, 2005, p. 87). Scholars using DAI argue that this level of learning is necessary for bringing about transformations at the whole-system (societal) level, or third order change (Nicolaidis & McCallum, 2014; Rooke & Torbert, 2005). Torbert and colleagues argue that the ability to engage in these different qualities of learning is positively related to level of thinking complexity, or the structure of one's way of interpreting experience, as described below (Fisher & Torbert, 1995; Torbert, 1987b, 1991, 2004).

Individual and organizational action-logics.

Torbert's DAI incorporates stage theories of development at the individual and organizational levels. The organization-level theory was developed first (Torbert, 1976) in part based on reviews of other stage models of development at individual and organizational scales, most notably Erikson's (1959 as cited in Torbert & Herdman-Barker, 2011) theory of interpersonal development. Torbert and Herdman Barker (2011) explain:

Given the analogy found between individual and organizational development, this version of developmental theory had a fractal, scalable, complexity-theory quality to it from the start, making it possible to analyze micro-developmental octaves within a single person or a single meeting (Torbert, 1989), or macro-developmental octaves across IBM's 100-year history (Torbert, 1987), as well as issues of leadership in organizations as these emerged (p.43).

Torbert later “retrofitted this organizational model to the personal scale of development” (Torbert & Herdman Barker, 2011, p.43) and proceeded to refine and validate it over the following two decades through empirical research using psychometric instruments including the Leadership Development Profile (LDP), a modified version of Loevinger's Washington University Sentence Completion Test (WUSCT), and the Global Leadership Profile, a subsequent adaptation of this instrument.

The structure that develops in Torbert's multilevel theory is called the action-logic because it represents “a unique logic, set of assumptions, and overall framework” (Torbert, 1989). It governs people's (and organizations') “ways of interpreting their surroundings and reacting when their power or safety is challenged” (Rooke & Torbert, 2005). Torbert (2004) contends that growth occurs as a result of learning that takes place when we inquire into the gaps we experience between our intentions and our actions, or between our intentions and our effects in the world. He notes that as a result of such learning “the initial limiting framework is dethroned and becomes a strategic option, or variable, within a more inclusive assumptive framework (Kegan, 1982; Kohlberg, 1969; Loevinger, 1976; Torbert, 1987; Trevino, 1986; Wilber, 1980)” (Torbert, 1989, p.86). Table 3 below provides a summary of managerial characteristics that Torbert's (2004) empirical research suggests are associated with each of the post-conventional action-logics defined by DAI. Since much of the empirical work informing this table is focused on managers and consultants in US organizations, the language used in this table reflects this professional orientation.

Table 3. Managerial Style Characteristics of Complex Thinkers as Depicted by Torbert & Colleagues for Each Tier Three Stage of Complexity.

Tier Three Stage	Managerial Style Characteristics
<i>Ironist</i>	Maintains a sense of the cosmic interplay among all beings in time and space, a sense of the absurd gaps, distances, and differences within the intelligent universe and sense of the limitations of personal and organizational power; Constantly aware of the incongruities among the four territories of experience and values the conscious suffering of such inconsistencies as moments with the greatest potential for self and organizational transformation; Aware of the distances among the worldviews of each of the earlier stages; Aware of the potentially destructive character of charismatic leadership and therefore backs away from it.
<i>Alchemist</i>	Continually exercises own attention, seeking single-, double-, and triple-loop feedback on interplay of intuition, thought, action, and effects on outside world; anchors in inclusive present, appreciating light and dark, replication of eternal patterns and emergence of the previously implicit; stands in the tension of opposites, seeks to blend them; intentionally participate in the work of historical/spiritual transformation; co-creator of mythical events that reframe situations; near-death experience, disintegration of ego-identity; treats time and events as symbolic, analogical, metaphorical (not merely linear, digital, literal).
<i>Strategist</i>	Recognizes importance of principle, contract, theory, and judgment—not just rules, customs, and exceptions—for making and maintaining good decisions; high value on timely action inquiry, mutuality, and autonomy; attentive to unique market niches, particular historical moments; interweaves short-term goal-orientedness with longer-term developmental process-orientedness; aware of paradox that what one sees depends on one's action-logic; creative at conflict resolution; enjoys playing a variety of roles; witty, existential humor; aware of and tempted by the dark side of power.
<i>Individualist</i>	Takes a relativistic perspective; focuses more on both present and historical context; often aware of conflicting emotions; experiences time itself as a fluid, changeable medium, with piercing, unique moments; interested in own and others' unique self-expression; seeks independent, creative work; attracted by difference and change more than by similarity and stability; less inclined to judge or evaluate; influences by listening and finding patterns more than by advocacy; may become something of a maverick; starts to notice own shadow (and own negative impact); possible decision paralysis.

Sources: Ironist (Lichtenstein, Smith, & Torbert, 1995, excerpted from pp. 110-111); all other stages (Torbert, 2004, p.108, Table 7-1)

Torbert and colleagues present empirical evidence that an individual's ability to catalyze transformation of systems at the other scales (interpersonal, social system) is related to the developmental levels of: that individual, the system(s) in which he/she is operating, and the system he or she is trying to transform (Rooke & Torbert, 1998, 2005; Torbert, 2004). For example, according to these authors, leaders at both tier two and tier three levels can catalyze transformation of systems through tier two levels of organizational

development. Only tier three leaders, or tier two leaders operating in systems supported by tier three leaders, can catalyze organizational transformation beyond tier two organizational stages. Appendix C shows the parallels between individual and organizational action-logics.

Torbert (2004) and others argue that use of complex thinking can make leadership actions more timely and effective because it enables more complete understanding of situations and motivates certain kinds of behaviors. For example, Torbert and others have associated complex thinking capacity with leadership activities such as:

- “Creat[ing] unique structures to resolve gaps between strategy and performance” (Rooke & Torbert, 2005, p.3);
- Generating systemic change in organizations through learning that leads to shifts in fundamental goals and strategies (Rooke & Torbert, 2005);
- Seeking out more types of feedback from a wider variety of sources in the process of developing and implementing strategies (Torbert, 2004);
- Engaging in generative learning within ambiguity (Nicolaides, 2008);
- Practicing mutual forms of power (Torbert, 1987b, 1989, 1991, 2004); and
- Greater use of prioritization and delegation with inquiry (Merron, Fisher, & Torbert, 1987).

Torbert (2004) suggests that while the latest stage action-logic developed in a person influences what they *can* notice, become aware of, describe, reflect on and change, this action-logic does not always inform what they *do* notice, become aware of, describe, reflect on and change, in part because action-logic is only one of the four territories of experience. The way a person acts in a moment is, in part, a function of what they are experiencing, consciously or unconsciously, in all four of the territories at that moment. For example, Torbert (2004) suggests that we each have a “fallback” (p.68) or preferred action-logic that

we use to organize meaning when under stress or emotional pressure. McCallum (2008) found empirical support for this proposition concluding that while individuals of all levels of mental complexity can experience fallback as suggested by Torbert, more developed individuals recognize and correct for this regression more quickly than those at earlier stages, reflecting their greater capacity to “intentionally attend” to the gap between how they are capable of making sense of and responding to an event and how they actually did. DAI suggests that learning from fallback episodes and intentionally deploying earlier action-logics to match the needs of a situation are two different ways that later stage action-logics can be deployed to boost leadership effectiveness (McCallum, 2008; Torbert, 2004). Livesay (2013) offers a detailed multiperspectival view of current thinking in the field about the nature of fallback and identifies important questions to be considered moving forward.

Review of the Literature Developing and Applying Heifetz’ Adaptive Leadership Framework.

Guiding question: What constitutes adaptive work?

I define adaptive leadership work using constructs outlined in the literature developing or applying adaptive leadership as conceptualized by Heifetz and colleagues (Cojocar, 2008; Heifetz, 1994, 2006; Heifetz, Grashow & Linsky, 2009; Heifetz & Laurie, 1999; Heifetz & Linsky, 2002; Heifetz & Sinder, 1988; Parks, 2005). Adaptive leadership represents both a theory and a framework for practicing adaptive leadership *on the ground*, which makes it a useful lens for ethnographic work. Situated in a larger “post-heroic” (Fletcher, 2004) strand of leadership theory, offers a process-based definition of leadership, which shares with these other theories the assumption that leadership is a certain kind of activity or process (not a person, role, or level of authority) that must be defined with

reference to the system(s) of which it is a part and the communities it affects. In these theories, the leader is seen as a participant in a larger change process characterized by complex interactions between people and their environment(s) and continually shaped by dynamics such as uncertainty, conflict, emergence, and change (Drath et al., 2008; Heifetz, 1994; Heifetz et al., 2009; Heifetz & Laurie, 1999; Lichtenstein & Plowman, 2009; Senge, Scharmer, Jaworski & Flowers, 2004; Spillane, Halverson, & Diamond, 2004; Uhl-Bien et al., 2007; Williams, 2005).

Adaptive leadership theory places explicit normative value on activities that “[give] clarity and articulation to *a community’s guiding values*... [which are] *interpreted in the context of problems* demanding definition and action”⁷ (Heifetz, 1994, p. 23). In other words, adaptive leadership involves creating a context and conditions that help people in a community productively engage in the difficult work of resolving conflicts that exist relative to a particular set of problems facing that community, in order to jointly define and make progress toward its shared or most widely held values. Drawing on this and other assumptions outlined by Heifetz (1994) about the nature of adaptive leadership I define adaptive work (which phrase I use interchangeably with adaptive leadership work) as follows:

Adaptive work is the process of engaging a community in the learning required to address gaps between the values it widely shares and the reality it faces, or between the values held by different segments of the community, in order to help the community as a whole continually refine its understanding of, and progress itself towards, its most fundamental and widely shared values. (Heifetz, 1994, p.22 paraphrase)

An *individual* can do this work, for example, by engaging in certain kinds of *internal activities* (e.g., directing own attention in useful ways such as by stepping on the balcony; defining adaptive challenges and conceptually unbundling them or exploring their

⁷ Emphasis mine.

interactions) or *external activities* (e.g., making interventions to keep levels of distress in a productive range; uncovering hidden perspectives through dialogue). An *organizational (or other group/ social) structure, process, or culture* can ‘do’ this work by creating certain kinds of conditions (e.g., lateral or mixed reporting hierarchy, incentive process that rewards doing adaptive work, culture of collaboration). A *physical artifact* (e.g., artwork symbolizing a community’s core values; vision statement articulating a community’s shared vision of thriving; physical layout that facilitates movement between interactive and independent kinds of work) or *metaphysical artifact* (e.g., a state of being, worldview, or way of understanding) can ‘do’ this work by motivating and facilitating the kinds of learning and reflection needed to carry out adaptive work.

In the pages that follow, I elucidate the key elements of my definitions above as I understand them based on a review of the literature developing or applying adaptive leadership theory as defined by Heifetz and colleagues. In the process of doing so, I point out some of the ways in which the effective exercise of these elements demand ways of thinking and acting that are motivated or facilitated by the use of complex thinking, or could be seen as flowing naturally from the exercise of underlying psychological structures that give rise to this capacity. As explained in the methods section (Chapter 3) I use these elements as sensitizing points for my data collection and analysis.

Visions of thriving.

Heifetz et al. (2009) argue that the purpose of leadership is to help a community bring about socially useful change—change that will help the community and its members *thrive*. Borrowing the idea of thriving from evolutionary biology, these scholars note that just as adaptations in the gene pool enable a species to propagate under changing environmental conditions, adaptations in elements of a social system can enable a community and its

members to thrive under similarly changing conditions. However, they acknowledge that in the case of adaptation within human communities, the vision for thriving is intimately tied to the dynamic and socially constructed values and preferences of the community and its individual members. Moreover, human beings can approach adaptation with intentionality. As such, what it means to thrive must be defined anew by each community, this definition may change over time, and leaders can play an important role in helping the community evolve and pursue this vision. Therefore, *thriving* in a social context refers to the broad realization (fulfillment) of values that are shared or widely held by members of the community, where the community is defined broadly to include all people and entities with a stake in the activities being pursued by members of the community, (or changes unfolding in the environment).

Adaptive leadership theory defines normative principles that dictate *how* a leader defines and leads a community toward its vision of thriving, rather than defining or assuming the leader will effectively define the *content* of those values. Effective adaptive leaders seek to develop a robust and nuanced understanding of the vision(s) of thriving that exist in the community, continually test their understanding of this vision by seeking feedback from external sources, and orient their actions toward illuminating gaps represented in these visions or obstacles impeding their realization. This aspect of adaptive work, which is referred to as “keeping the work at the center,” can be distinguished from ways of acting that involve mobilizing resources to advance more narrowly defined visions of thriving developed by the leader herself, or by narrowly defined segments of the community, such as those in power or those who are most vocal about the kinds of changes that are needed (which is often how leadership work is defined by heroic leadership theories). Adaptive leadership scholars contend that solutions placed at the center of narrowly defined segments

of the community are likely to result in unintended consequences or face strong resistance from factions within the community who hold equally narrow, often conflicting perspectives on the problem.

In Torbert's Developmental Action Inquiry terms, the process of "keeping the work at the center" can be thought of as a way of aligning individual and community activities in territories one (effects/outcomes), two (behaviors/performance), and three (assumptions/strategies) with the content of territory four (intentions/vision), which includes individual and collective visions for a thriving community. Kegan's trans-system complex organizing principle, as well as Torbert's integrative quality of awareness, seem particularly well suited to helping a leader work across factional perspectives to help a community keep in mind the broader vision of thriving that incorporates the perspectives of factions that exist outside of the community, and includes factions whose interests are not immediately at stake.

Heifetz (1994) articulates this 'inclusivity' yardstick partly as the degree to which segments of the community which hold "competing value perspectives" have been substantively involved in the processes of defining and implementing a given change. He points out that a key element of adaptive work is uncovering alternative visions of thriving and associated "hidden perspectives" on particular issues that are held by different groups within the community, especially those whose views are less likely to be represented in the dominant discourse due to such factors as marginalized social status, limited access to power, or other social dynamics. In other words, adaptive work calls upon the leader to account for not only differences in visions of "the good life" but also the fact that specific social changes affect different groups within a community in different ways. According to Heifetz and colleagues, this can take such forms as (a) actively seeking out perspectives that

differ from those held by dominant factions, (b) exposing and orchestrating conflicts grounded in these differences, (c) actively leveraging diversity as a means of expanding collective understanding of the shared problems, and (d) engaging people in the process of co-creating visions of a future desirable state and strategies for getting there. In prioritizing such co-created visions of thriving over more narrowly held visions constructed by the leader or dominant factions within it, adaptive leaders not only acknowledge and respect, but also celebrate and learn from the diversity and complexity of human beings, the traditions and beliefs they hold dear, the institutions they have created to serve their purposes, and the social, cultural and political contexts in which they operate.

Because of its explicitly normative emphasis on progressing a community toward the greater realization of its own widely held values, adaptive leadership theory differs from some of its complexity theory cousins which profess a normative-neutral stance on leadership. For example, Drath et al. (2008) specify that their Direction Alignment Commitment (DAC) leadership ontology is based on a nonnormative, functionalist philosophy as outlined by Morgeson & Hofmann (1999). DAC counts as leadership any phenomenon that serves the function of increasing *Direction*, *Alignment*, or *Commitment*, regardless of the intent of its actor, the mechanism of influence, or the normative implications for the community. Similarly, Uhl-Bien and Marion (2009) note “the outcomes of interest in Complexity Leadership Theory [are] innovation, learning, adaptability, and new organizational forms” (p.633). Yet these authors do not specify any normative criteria for evaluating these changes with respect to the values held by the human community (or other reference group, e.g., ecology) in cases where these values differ from the four they have identified: innovation, learning, adaptability and new organizational forms. For example, they do not require asking “innovation in service of what or whom?”

Notably, adaptive leadership theory does not offer an explicit perspective on how to normatively compare two equally inclusive visions of thriving with different contents—for example, two different visions advocated by two different, comparably diverse (on different dimensions), sets of factions within a community, each of which prioritizes a different value hierarchy. Therefore, the criteria of inclusivity falls short in helping leaders (who wish to do so) assess whether or not a given vision of thriving is inherently better than another, such as when helping a community address conflicts that are particularly protracted in nature or based on deeply held, and fundamentally differing values. For example, this might come up when one group on a university campus seeks to exercise its right to free speech in a way that involves the use of hateful language that makes the community feel less safe for another group on that campus. Theoretically, the most inclusive vision of thriving would be that which considers the perspectives of and implications for all members of the human (and broader ecological) community. However, obtaining this ideal is impossible in practice. Thus, it could be argued that the criterion of inclusivity falls short operationally when either: (1) inclusivity can't be accurately assessed, or (2) inclusivity is comparable across alternative visions.

However, adaptive leadership theory does not advocate making such choices. Rather, it suggests that the real adaptive work lies in creating some larger vision of thriving that takes the best of each conflicting side and incorporates it into some new, yet unarticulated (possibly yet unconceptualized) vision that may, or may not, lie at the intersection of the two initial visions. In other words, adaptive work involves not choosing between visions and not only seeking points of alignment across existing forms of competing visions, but also (or possibly instead) drawing upon distinct elements of the competing visions as they currently exist to identify, create, or uncover some new domain of possibilities that lies within the (yet

undetected; unacknowledged; undervalued) larger sphere of reality shared by the competing factions but outside of competing visions of thriving as currently formulated by those factions. Underscoring this distinction, Kegan (1994) suggests that a conceptualization of conflict that is based on complex thinking would sound something like this:

The protracted nature of our conflict suggests not just that the other side will not go away, but that it probably *should* not. The conflict is a likely consequence of one or both of us making prior, true, distinct, and whole our partial position. The conflict is potentially a reminder of our tendency to pretend to completeness when we are in fact incomplete. We may have this conflict because we need it to recover our true complexity. (p.319)

Adaptive work that draws on complex thinking capacity would likely incorporate decisions and actions that are based on this conceptualization of conflict and oriented toward influencing the types of learning needed to discover the shared unknown, deepen understanding of the respectively valued, and through these processes, emerge into an unknown future. For example, this might involve practices that help a community identify which of its “DNA” should be preserved (Heifetz, 1994). It could also involve engaging them in processes of thinking more deliberately about which learning from the past it wants to carry into the future, what’s working in the present that should not become the ‘baby thrown out with the bathwater,’ and what new ways of thinking about or acting to address the issues that have not yet been pursued are worthy of defining some experiments to explore.

Adaptive challenges.

A cornerstone of adaptive work is the process of helping members of the community diagnose and address the intractable problems that are preventing them from realizing their values. Heifetz and colleagues distinguish adaptive challenges from technical problems, with the latter being well understood and having known solutions. These scholars emphasize that technical problems can often be very complicated and can require special

expertise to address; but they are problems for which the community has worked out techniques that will reliably fix the problem if implemented properly. Since most problems facing complex social communities combine technical and adaptive elements, adaptive work is defined as those activities aimed at tackling challenges that include at least a significant adaptive component defined with reference to the community's shared vision of thriving. Failure to identify adaptive aspects of a challenge, or misdiagnosis of these elements as technical problems can interfere with a leader's ability to engage the community in the kinds of learning necessary to address the challenge in ways that are sustainable and consider the needs of all segments of the community affected by the problem. Heifetz et al. (2009) further specify:

Adaptive challenges can only be addressed through changes in people's priorities, beliefs, habits, and loyalties. Making progress requires going beyond any authoritative expertise to mobilize discovery, shedding certain entrenched ways, tolerating losses, and generating the new capacity to thrive anew. (p.19)

Heifetz (1994) suggests that adaptive challenges can take one of two forms: (a) gaps between a community's agreed upon values and their lived reality—these are called *value-reality gaps*, or (b) gaps between the different value perspectives held by members or factions within a community with respect to a given issue—these are called *value-conflicts*. Solving these different types of adaptive challenge(s) in order to advance a community toward its goals is at the core of adaptive leadership. In this study I examine how participants understand, illuminate, or otherwise help the community address salient examples of these two kinds of adaptive challenges.

Offering a second analytic lens, Williams (2005) outlines six types of adaptive challenges, each requiring a different leadership strategy and presenting a unique set of challenges to individuals seeking to help a community address it. This scholar points out that

although these types of challenges are theoretically distinct, in practice they overlap and interact in dynamic ways. As such, while it is important for a leader seeking change to assess the nature of the particular challenge(s) to determine which of these frames is most appropriate for guiding action, it is equally important for her to understand the relationships and interactions between these aspects of a problem, and to shift her own strategy and approach as progress (or lack thereof) in one area affects the shape of overall system and its problems. Finding connections between seemingly distinct issues is a complex thinking capacity that Berger and Johnston (2012) well illuminate and illustrate. In Table 4 below I provide a summary of Williams' six types of leadership challenges along with their associated solution strategies and implicit leader curricula as described by Williams. I created this table by drawing content from across Williams' (2005) book. In my study I use these classifications to inform my understanding of the lines of work being pursued by my participants. While I don't reference these classifications explicitly, I find them helpful for sifting through the data to define the boundaries of specific challenges being worked on by my participants.

Table 4. Solution Strategies & Personal Demands in Williams' Adaptive Challenges.

Challenge Type	Challenge Description	Recommended Solution	Personal Demands on Leader (p.246-247)
<i>Activist Challenge</i>	Denial of existing value conflicts or of gap between shared values and lived reality prevents community from seeing and acting on important opportunities in the environment.	Help people acknowledge value conflicts so they can see, evaluate, and act on opportunities in the environment.	• Resist becoming self-righteous about the cause or forcing change as narrowly defined by the leader. • Separate the cause from leader's own personality & role.
<i>Development Challenge</i>	Current capabilities are inadequate for ensuring the community's survival or capacity to thrive.	Develop capabilities of the community.	• Take the long view and build holding environment to support gradual changes over time. • Avoid letting personal frustration with shape and pace of change lead to punitive actions against the community.
<i>Transition Challenge</i>	Community's existing values are no longer useful for addressing challenges presented by the current environment.	"Refashion the values, loyalties, and mind-sets of the people" to reflect new, current environmental challenges (p.115)	• Remain sensitive to what people are giving up to avoid pushing too hard. Manage need for personal achievement and focus on supporting change in others.
<i>Maintenance Challenge</i>	Environment poses sudden, severe threat to community's existence.	Help community defend its "amassed value" and "preserve essential resources" until the threat passes. (p.35)	• Resist responding to the overwhelming nature of the threat with paralyzing depression. • Face the reality that the community is in decay. • Avoid adopting excessively polite, upbeat attitude that encourages people to deny reality of the situation.
<i>Creative Challenge</i>	Opportunity exists to produce major, new benefit for the community by "doing something that has never been done before." (p.35)	"Incite" members of the community to "transcend their prevailing paradigm and make a useful discovery." (p.35)	• Avoid dominating the group or stifling potentially productive dissent • Tolerate the "messiness and chaos of the creative process." (p.247)
<i>Crisis Challenge</i>	"Group faces a potentially explosive situation that could threaten the life of the group or some aspect of the prevailing order" (p. 35)	"Dissipate the explosiveness in the situation" and "address underlying unresolved challenges [to prevent] reoccurrence of the crisis" (p.35)	• Manage anger personal offense to avoid "lashing out" at others • Manage fear of conflict and avoid retreating from necessary work. • Maintain productive levels of disequilibrium oriented toward finding long-term solution.

Source: Constructed from content in, 2005

Educative strategy.

Since, by definition, learning by the community is required to address adaptive challenges, Heifetz (1994) suggests that an “educative” (p. 187) strategy is an important element of any adaptive leader’s work. However, the way in which a leader understands what it means to carry out an “educative strategy” will always be shaped by the assumptions that person holds about who is supposed to be educating whom about what, how, and why. The kinds of education required to address adaptive challenges include such things as: helping the community identify and understand the nature of existing or impending value-conflicts or value-reality gaps; diagnosing how certain dynamics in the system or perspectives held by people in the community are thwarting proper identification and effective resolution of those challenges; developing the community’s capacity or motivation to address existing or impending gaps; and helping the community understand what steps are necessary to keep them alive while they are engaged in other forms of learning. As a member of the community whose thriving is at stake, the leader may assume responsibility for performing certain functions within a broader strategy aimed at addressing the adaptive challenges, however the educative process should be directed primarily toward helping other members of the community see the problems and discover solutions to address them while remaining oriented toward the community’s shared values.

Diagnosis and action.

Scholars contend that doing adaptive work requires moving continually between activities aimed at (a) *diagnosing* the system (which includes defining the values held by different segments of the community, exploring the dynamics shaping the interactions between members of that community and between the community and the environment, and identifying adaptive challenges thwarting that community’s ability to achieve its values;

(b) *acting* on or within that system in ways that help the community learn and adapt; and (c) *harnessing the learning* that results from carrying out and moving between diagnosis and action, such as by making “mid-course corrections” in one’s understanding of, or strategies for helping the community see and address its adaptive challenges (Heifetz, 1994; Heifetz et al., 2009; Heifetz & Linsky, 2002).

In the process of carrying out these activities, the leader must hold onto her interpretation of reality (her diagnosis) both firmly enough to guide her inquiry and actions on the ground, and loosely enough to remain open to the need for adjustments. Thus she is advised to move forward with confidence but also with an experimental mindset characterized by a willingness to learn and make mid-course corrections. Moreover, Heifetz et al. (2009) assert, “if you are skilled at adaptive leadership, you might find yourself actively holding more than one interpretation about a particular observation open at any moment, even mutually exclusive ones” (p. 35). These two requirements, 1) holding assumptions tightly enough to support action and loosely enough to motivate testing and modifications; and 2) being willing to hold two contradictory ideas as simultaneously true are parts of the “postmodern honors curriculum” that Kegan identifies (as described earlier in Part I of Chapter 2). As such, a leader’s ability to engage in these ways of thinking and acting is theorized to be facilitated by the availability of complex thinking capacity. Notably, the adaptive leadership model is similar to Torbert’s developmental action inquiry leadership model in its emphasis on interweaving and continually learning from action and inquiry. In both models, inquiry informs action (a widely researched phenomenon) *and* action informs inquiry in real time (somewhat less conventional). In my study I examine both how participants’ complex understanding shapes their action, and how their actions provide inputs for their complex understanding.

Another similarity between these two leadership models, which is also shared by other process-based leadership theories, including complexity leadership theory (Uhl-Bien et al., 2007), leadership of emergence theory (Lichtenstein & Plowman, 2009), DAC leadership theory (Drath et al., 2008), distributed leadership theory (Spillane et al., 2004), presencing (Senge et al., 2004), is that leadership is conceptualized as a dynamic, situated process that cannot be understood without reference to the system(s) of which it is a part, which includes the dynamic interaction between individuals in a system, and the other unpredictable, evolving elements of that system. While individual traits and resources such as formal and informal authority, social and cultural capital, and thinking complexity can serve as resources shaping how a person understands and contributes to this system, access to these resources is neither a prerequisite nor a defining feature of leadership in this paradigm (Heifetz et al., 2009). *How* one deploys these resources in service of helping the community learn should be based in part on the kind of work you are doing. For example, within the adaptive leadership framework, different forms of authority are considered an important resource for accomplishing adaptive work. Heifetz (1994) points out that formal authority needs to be deployed differently when doing adaptive work (vs. technical work). Table 5 below taken from Heifetz (1994) provides several examples of this.

Table 5. Leadership with Authority in Adaptive Situations (vs. Technical).

Social Function	Technical challenges	Adaptive challenges
<i>Direction</i>	Authority provides problem definition and solution	Authority identifies the adaptive challenge, provides diagnosis of condition, and produces questions about problem definitions and solutions
<i>Protection</i>	Authority protects from external threat	Authority discloses external threat
<i>Role orientation</i>	Authority orients	Authority disorients current roles, or resist pressure to orient people in new roles too quickly
<i>Controlling conflict</i>	Authority restores order	Authority exposes conflict, or lets it emerge
<i>Norm maintenance</i>	Authority maintains norms	Authority challenges norms, or allow them to be challenged

Source: Heifetz, 1994, p. 127 Contents verbatim. Title and headings adapted slightly.

Thus, Heifetz (1994) points out, “[authority] becomes a tool in a strategy to mobilize adaptive work [by the community] toward a solution, rather than a direct means to institute one” (p.87). Drawing out in more explicit terms the differences highlighted in the table above, Heifetz (1994, p.128) defines five strategic principles governing the use of authority to accomplish adaptive work:

1. Identify the adaptive challenge.
2. Keep the level of distress within a tolerable range for doing adaptive work.
3. Focus attention on ripening issues and not on stress-reducing distractions.
4. Give the work back to people, but at a rate they can stand.
5. Protect voices of leadership without authority.

One way I may observe my participants applying the resource of complex thinking is to help them uphold the principles above in the process of helping their communities thrive. For example, the broad perspective, long timeline, and systems-thinking afforded by

complex thinking may help leaders better diagnose threats and opportunities facing the community, see connections between different adaptive challenges they face, and anticipate less obvious impacts of different solution options on the table. They can use these insights to focus the community's attention on less visible aspects of the realities they face, amplify ongoing efforts to address what appear to be critical threats, and raise important questions that help ripen important issues.

Internal and external domains of leadership practice.

Like other scholars who explore the value of investigating internal as well as external leadership activities (e.g., Senge et al.'s (2004) internal "presencing"; Torbert's (2004) "inquiry in action"), Heifetz contends that diagnosis and action "should unfold in two dimensions: toward the organizational or social system you are operating in and toward yourself" (Heifetz, et al., 2009, p. 6). As described above, external diagnosis involves understanding both whose ability to thrive might be impacted (for better or worse) by different forms of the change being considered and what structures, norms, politics and other dynamics characterize the system, and therefore need to be contended with in the process of bringing about change (or deciding not to). Internal diagnosis involves understanding one's own intentions, assumptions, values, and habits and how these might interact with the dynamics of the system to influence decisions, actions and outcomes. While full information about a system (an impossible goal) is not the ideal, more complete understanding through combined and ongoing, internal and external diagnosis is.

Complex thinking may be useful for trying to gain deeper understanding of both internal and external domains. For example, Heifetz (1994) uses the metaphor of "getting on the balcony" (p. 252) above the "dance floor" (p.253) to describe the process of distancing oneself from activity in which one is currently engaged externally (the situation) and

internally (one's own thoughts and feelings), thereby gaining perspective on those activities in the broader context of time, space, or meaning (Heifetz, 1994, Heifetz & Linsky, 2002). Berger (2012) points out that the amount of distance or perspective an individual can gain through this attention shifting technique depends in part on her developmental position. In a sense, Berger notes, there are “multiple balconies” each offering a broader scope of reality against which to judge the specific activities taking place on the dance floor. Complex thinking provides access to higher balconies, and thus broader and more layered perspectives on situations.

Paths of influence: complex, nonlinear, unpredictable, spanning long or multiple, intersecting timelines.

Adaptive leadership theory as conceptualized by Heifetz and colleagues (Heifetz, 1994; Heifetz et al., 2009; Heifetz & Laurie, 1999), emphasizes that leadership begins with the actions or interactions of one or more agentive individuals within a community who mobilize others to produce socially useful change. However, some complexity leadership theorists define adaptive leadership more broadly to include the possibility that self-organizing, emergent system dynamics can also provide leadership that promotes adaptive change. For example, Drath et al. (2008) distinguish between leaders (individuals) and leadership (a multilevel phenomenon that cuts across individuals, groups, and larger systems such as organizations). They contend that any intentional or emergent activity, or any artifact of these processes, that serves one of three functions in a system can be considered leadership of that system: providing Direction, increasing Alignment, and producing Commitment—hence the name DAC. Although DAC extends the notion of leadership beyond individuals, it does not exclude them.

As discussed earlier, DAC and other complexity theories shift the emphasis of leadership from the activities of individuals (which serve particular functions) to the *functions*

themselves (Drath et al., 2008). This functional perspective underscores the nonlinear nature of some paths linking individual activity to system effects. An example might be a leader who supports the development of organizing complexity in people (builds personal capacity) and promotes the development of adaptive capacity within organizations (for example by introducing incentives that encourage experimentation). Developing other people today may serve the immediate function of aligning individual capacities with demands of the environment and increasing the commitment of those people; however, once those people apply their expanded capacities to affect the system in new ways in the future, this second level of impact may no longer be directly linkable to the leader. The importance of considering multiple timelines when evaluating leadership effectiveness is underscored by Cojocar (2008) who observes that adaptive leadership theory “prescribes that leaders make decisions and act with a conscious understanding of how their behaviors are broadly relevant to time and space, not just for one organizational setting within a singular moment of time” (p.31). Since interventions and capacity building efforts implemented on one timeline might have different types of influence on the system and its members from the perspective of other timelines, these different timelines should be taken into account in the process of understanding how specific actions are influencing the system. These ideas connect to my reviews of the literature presented earlier in which I highlighted Torbert’s liberating disciplines and Kegan’s Deliberately Developmental Organizations as examples in which a leader’s actions (the creation of such disciplines/organizations) can exert influence on a system or community long after the leader is gone. Recognizing this reality and working on changes that will outlive the leader’s presence in the organization will be facilitated by thinking that is oriented to a long time line (vs. my own annual achievements), the needs of

the community (vs. my own legacy), and a deep appreciation for both the value and the difficulty of engaging in continuous learning, both as individuals, and as a community.

Part III: Higher Education—A Fitting Arena to Study Complex-Thinking in Adaptive Leadership Practice

In this section I use a broad brush to characterize the situational complexity that exists in the higher education context and the kinds of adaptive work being carried out by leaders in that environment. The choice to use a broad brush in this part of my review is based on my commitment to remaining receptive to my participants' descriptions of how they understand their particular environments and their particular work (and my awareness that, by this point in the document, I've probably already tested my readers' patience...)

My review of the literature examining the higher education arena and the work of leading change in that environment revealed multiple themes that speak to the complexity of this work domain (Barnett, 2001; Blackmore & Sachs, 2000; Drew, 2010; Kezar, Carducci & Contreras-McGavin, 2006). For example, Kezar et al. (2006) report that “colleges and universities have long been noted as organizations with ambiguous goals and purpose, diffused power, and decentralized systems” (p. 111). Many of these institutions combine hierarchical and decentralized modes of governance (Teichler, 2001), pursue funding strategies spanning public and private sectors (Duderstadt, 2009), and maintain dense networks of collaborative partnerships (Giles, 2012; Rojas, 2012). In addition, universities often maintain multilayered and fragile relationships with their surrounding communities (Torbert, 1982). Complicating matters further, contemporary macro-dynamics including globalization and technological innovation call for ever-increasing availability, scope, and interactivity of educational services and operations (Rhoads, Berdan & Toven-Lindsey, 2013; Singh, 2011). On one hand, these trends and realities hold potential as critical threats to the sustainability of higher education institutions and their ability to uphold their core values. On

the other hand, they represent fleeting opportunities to experiment with new approaches to teaching, learning, and leading which can be leveraged through the kinds of environmental attunement, timely action, and collaborative inquiry facilitated by development of complex thinking.

These environmental dynamics have real implications for higher education leaders seeking to influence change on the ground. For example, leaders must contend with policy wars among advocates of ‘student as consumer,’ ‘student as scholar,’ and most recently, ‘student as employee’ paradigms (Drew, 2010; Simpson, 2014); demands for greater equality amidst increasing pressure for accountability and competitive performance (Blackmore & Sachs, 2000; Bolden, Petrov & Gosling, 2008; Pasque, Hendricks, Bowman, & University of Michigan, National Forum on Higher Education for the Public Good, 2006); pressures to pursue more sustainable growth strategies (Martin & Samels, 2012; Wright, 2010); and ongoing debates over the meaning, measures, and use of merit-only and mixed admissions policies (Bowman & St. John, 2011; Kurilko, 2007), to name just a few. Illustrating the challenges associated with strained town-gown relations Torbert (1982) describes how at one university, the complex web of interconnections between university and community participants created a sense among university administrators that “fear lay close beneath the cordial mask of this dependent relationship” (p.99). Here again, from the perspective of a complex leader, both positive and negative potential lie within these challenges.

Mirroring trends in the broader leadership literature (Berger, 2012; Heifetz, 1994; Lichtenstein & Plowman, 2009; Uhl-Bien & Marion, 2009) scholars of higher education leadership are increasingly applying new leadership paradigms to uncover how these dynamics shape leadership work, and conclude there is a need for more leaders who can construct evolving, expansive, and multifaceted understandings of their work and contexts

(Cutright, 2001; Eriksen, 2008; Kezar et al., 2006). For example, in a study examining how college presidents made sense of their environments and were perceived in their roles, Birnbaum (1992 as cited in Kezar et al., 2006) found that presidents “were considered more effective when they developed cognitive complexity and used [multiple] frames simultaneously” (p 116). Love and Estanek (2004) similarly conclude that student affairs administrators should practice paradigm transcendence, valuing dualisms, recognizing connectedness and embracing paradox. Other scholars conclude that ambitious change efforts call for “transformational” and “adaptive” leaders who can orient action toward more expansively defined goals and, in the process, modify deeply held assumptions or otherwise alter the fundamental goals, structure, and culture of systems (Drew, 2010; Foster, 1989; Kezar & Sam, 2011; Sharp & Shea, 2012). All of these demands are well matched to the strengths afforded by complex-thinking capacity.

While leader case-studies are well-represented in the higher education leadership literature, to my knowledge, with the exception of Torbert’s early action research described earlier, I am not aware of any studies that use the lens of constructive-developmental theory to qualify participating leaders as complex thinkers and then systematically examine how they carry out adaptive work on the ground in this setting.

Part IV: Addressing the Gaps

As discussed in this chapter, the kinds of challenges facing our human community today, many of which are mirrored in the higher education arena, are highly complex, and demand leaders who are capable of making sense of this work in equally complex ways. Constructive-developmental theory provides a useful lens for defining what it means to think complexly, and offers tools for identifying leaders who have developed this capacity so that they can be studied in action. While scholars working with this branch of theory have

thoroughly specified the nature of complex thinking, and found correlations between the development of this capacity and performance on various leadership and management tasks, much less attention has been given to systematically examining how this link operates and what it looks like when leaders actually *exercise* this capacity, especially in the kinds of messy, dynamic, natural settings where adaptive leadership work usually takes place. More research in this area is needed if we hope to deepen our understanding of the *lived experience* of exercising complex thinking to carry out adaptive work. Of the limited number of studies that do examine how complex-thinking leaders handle real-world challenges, only Torbert's self-studies are situated in a higher education context, and none use Heifetz' adaptive leadership lens to define the boundaries of the leadership activity being examined.

This dissertation is not intended to *close* these gaps, but, speaking metaphorically, to map out more of the terrain, create footholds, and secure belay ropes on the underexplored mountain of complex thinking in lived leadership practice. By examining, up close, *how* three higher education leaders, working in different institutional settings, and moving through multiple situations, apply complex thinking to understand and carry out their adaptive leadership work, I am able to offer rich descriptions of such practice, to serve as mirrors, provocations, and research hooks. I draw on the concepts outlined in the constructive-developmental theory section above (within Part II) to qualify participants for this study and to evaluate the complexity of themes I uncover in participants' ways of understanding their environment, and acting on this understanding. Although I do not code explicitly for the constructs identified in this literature review (e.g., forms of complex thinking; behaviors associated with complex thinking), I use these constructs as sensitizing concepts to direct my gaze in the field, and as entry points for making sense of themes that emerge during emic coding and subsequent thematic analysis (see Chapter 3 for more on this). I draw on the

concepts outlined in the adaptive leadership section above (also within Part II) to define which aspects of my participants' leadership practice represent adaptive work, and, thus, to delineate the boundaries of the lived practice I will explore to investigate uses of complex thinking. As outlined in part three above, situating this study in higher education makes sense because leaders in that arena face the kinds of adaptive challenges that demand complex thinking. As such, I am likely to encounter them engaged in the activity of applying their psychometrically validated capacity for complex thinking to understand and approach adaptive work in this environment.

Chapter 3.

Research Methodology

Research Questions

The research questions guiding this study are:

1. How, if at all, do three developmentally mature leaders in higher education use complex thinking to understand their adaptive leadership work?
2. How, if at all, do participants' uses of complex thinking shape their decisions and actions on the ground?

These questions investigate defined aspects of what is going on in a particular set of cases and, thus, represent what is referred to by qualitative methodologists as *particularistic* research questions (Maxwell, 2005). Such questions are appropriate when “the primary concern of the study is not with generalization, but with developing an adequate description, interpretation, and explanation of [these] case[s]” (Maxwell, 2005, p.71). Put differently, such questions support studies designed to achieve high levels of internal validity, which bolsters the truth value of conclusions drawn about the particular cases studied, while offering a sound empirical grounding for theoretical generalizations to a broader set of cases. To answer these questions, I carry out the research using the study design detailed below.

Study Design

Researcher ontology and epistemology.

This research is grounded in the following assumptions I hold about the nature of reality (ontology) and what we can know about it (epistemology).

1. *There is an objective reality:* reality exists as a dynamic, objective phenomenon distinct from *and including* our evolving understanding or experience of it; what different people subjectively know and believe at different points in time is part of that objective reality.
2. *We each construct knowledge of that reality:* We are all continually making our own assessments about the nature of this reality and, either consciously or unconsciously, constructing for ourselves some understanding of its nature; we each continually construct subjective understandings of what is true and what meaning these different truths hold for our lives, societies, and physical/metaphysical worlds.
3. *Reality and our constructions of it dynamically interact and shape each other.* Each construction of reality is both an integral part of, and substantively shaped by, the larger objective reality, which includes the phenomenological world separate from our constructions of it and all evolving constructions of it.
4. *For complex social phenomenon, no construction of the truth ever maps completely onto the full reality in all its objective and constructed aspects.* Every construction of what is true about a complex social phenomenon is partial, flawed, and grounded in the constructing agent's own constitution, history, experiences and assumptions.
5. *Some constructions of reality map more closely and completely onto the actual reality than others, and it is possible, under certain conditions, to make reliable assessments about the relative accuracy of these different constructions.* Because we can engage in intersubjective comparisons of our constructed truths, employ empirical measures validated through scientific observations, and take stock of our own human impulses and experiences, we can compare different constructions of reality and assert that some constructions are closer to the actual reality than others.

These assumptions, which best approximate a realist ontology and a critical-constructivist epistemology inform various aspects of my research design. For example, as discussed in more detail in subsequent sections of this chapter, I: (a) approach analysis using a process that incorporates dialogic movement between data collection and analysis, and between collected data, conceptual framework, and multiple, external sounding boards (e.g., participants, peer-debriefers, subsequent data); (b) assert that empirical research using such a method can generate valid conclusions about the nature of, and relationships among, subjective, objective and intersubjective aspects of reality; and (c) use the criteria of sufficiency rather than saturation to guide decisions about when to stop observations.

Multiple-case study.

I structure the research as a multiple-case study incorporating three cases. Having more than one case allows me to observe and compare different types of leader experiences and leader-context interactions. Limiting my study to three cases provides a manageable scope for exploring the participants' practices in significant depth with attention to dynamic and nuanced aspects of their thinking and acting in context. Following Thomas (2011) I use the case study format to provide "boundaries" for my research that specify "the direction and extent to which [I] want [the] search to go" (p.21). In addition to the *conceptual boundary* represented by my research questions and conceptual framework, which specify the particular processes I will be examining and the lenses I will be using to do so, I also use the following three *operational boundaries* to specify which aspects of concrete reality I will be looking at in order to locate and study these processes:

- *Person.* Each case focuses on the thinking processes and leadership practices of one complex-thinking higher education leader who has qualified for the study and generously agreed to participate. Focusing each case on a single person allows me

to delve into the subtleties of these participants' understanding, as well as the nuances of their action, and examine them in ways that meaningfully answer my research questions. Later in this chapter I outline the specific qualification criteria and process I use to select these participants.

- *Time.* For each case I focus on adaptive leadership work being undertaken by the leader during the six to nine months when we are working together and, only to the extent it seems relevant for exploring this ongoing work, leadership activities undertaken by this leader in the recent past. This emphasis on the present enables me to gain insight into the dynamic processes that shape how participating leaders understand and approach their work, even as the context shifts and changes, the work unfolds before them, and their understanding of and approach to it evolve.
- *Focal Domain of Leadership Work.* Each case focuses on the participating leader's efforts to promote adaptive change with respect to a specific domain of that person's leadership work, or a small number of specific change initiatives being worked on by that leader during the study period. I select the focal work domain for each case in conjunction with the leader using the following criteria: (a) extent to which the leader's work in that domain demands adaptive leadership, (b) the intensity of the leader's work in that domain during the study period, (c) the extent to which that work is taking place in observable contexts during that period, (d) levels of complexity and value-conflict reflected in the adaptive work taking place in that domain (with more being better), and (e) value to participants' of engaging in deeper reflection on their work in those areas. I use the selected focal domain to guide selection of situations to observe and to invite leaders to speak in concrete terms about their work.

This mix of conceptual and operational boundaries, in combination with my use of particular ethnographic methods (described next) are designed to help me “select the scenes [to] observe and direct [my] gaze within them” (Charmaz, 2006, p.23).

Ethnographic methods.

I investigate the three cases using ethnographic methods designed to illuminate subjective, objective, and intersubjective aspects of reality, focusing on how the particular processes I’m studying manifest and unfold in natural settings. Consistent with the epistemological assumptions outlined earlier, and joining other constructivist ethnographers (e.g., Charmaz, 2006; McCallum, 2008, Torbert, 1972), I embrace the notion that knowledge is constructed by the researcher in interaction with the data such that analytic categories and research conclusions emerge from dialogic movement between the data (e.g., interview transcripts, observation notes), the current interpretive framework (e.g., theories, researcher ontology, epistemology, assumptions, and experience) and challenges to the interpretive framework coming from the outside (e.g., alternative interpretations offered by participants, advisors, peer debriefer; subsequent data). As such, rather than approaching data collection and analysis as discrete steps in a linear process, I continually move between different forms of data collection, data analysis, and testing of emergent findings against external sources, allowing my activities in each iteration to inform how I approach and understand the next. Figure 3 and Figure 4 below show how this multi-iterative process unfolds at the case and multi-case levels. Note that the specific timeline represented in these figures below reflects the proposed timeline at the outset of the study and does not match exactly to the actual timeline followed. These figures are included to provide a visual sense of the way I move between fieldwork and analysis and between within-case and across-case analysis while continually refining and evolving my focus as this process unfolds. Appendix D shows the

actual high-level timeline used for this study. Appendix E provides a detailed schedule of research activities showing actual completion dates for all key milestones.

Figure 3. Research Roadmap Showing Dialectical Movement Between Fieldwork and Analysis Within a Given Case.

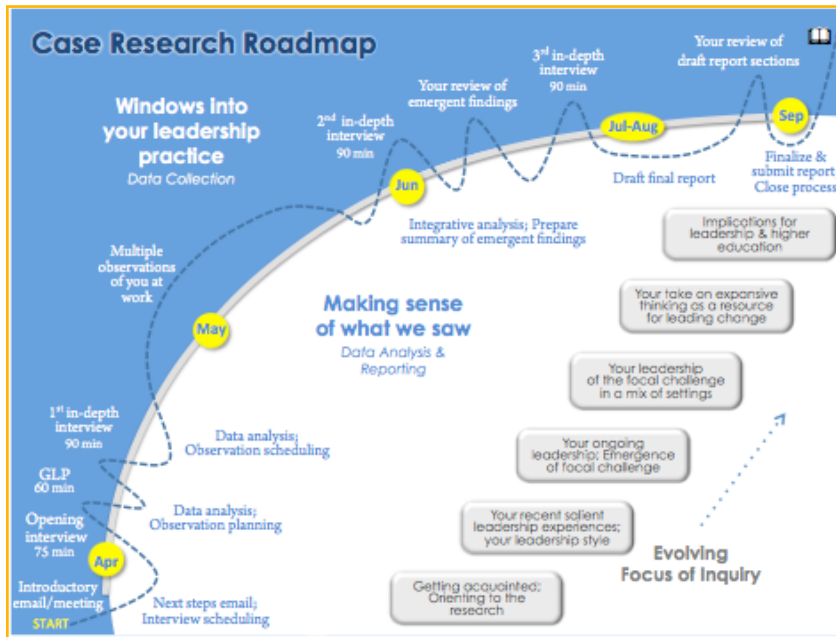
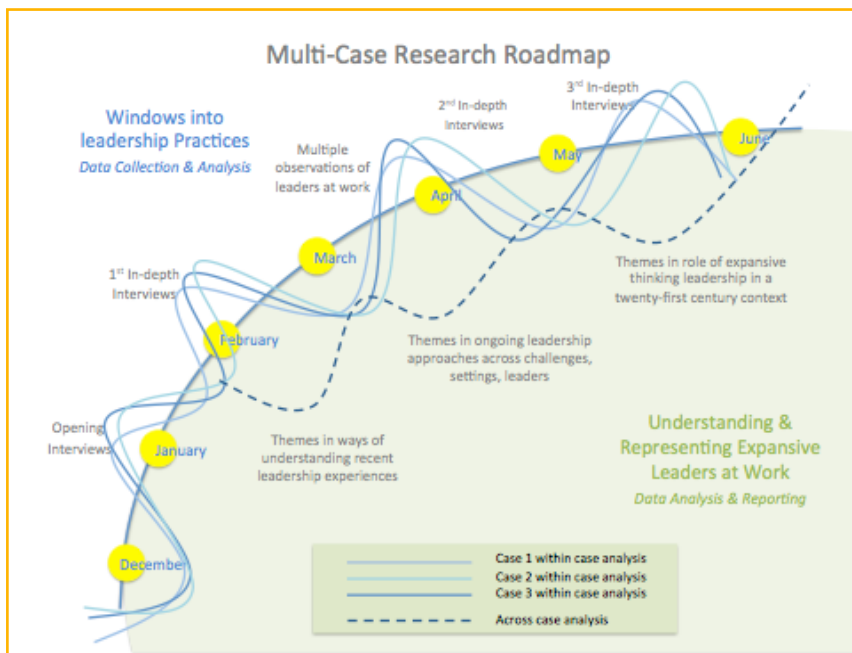


Figure 4. Research Roadmap Showing Dialectical Movement Between Within-Case and Across-Case Analysis.



The specific combination of ethnographic methods I use to gather and analyze data, which are represented as milestones in the figures above are detailed in the sections that follow.

Participant selection & recruiting.

I purposely select and recruit three participants who, as a group, exhibit diversity along meaningful dimensions including role, gender, ethnicity, and institutional context and, as individuals, fulfill all five of the qualifying criteria below:

- Demonstrates the capacity for complex thinking based on an assessment of epistemological structural complexity based on (a) completion of a *Subject-Object Interview* (Lahey et al., 1988), a measure of complex-thinking *capacity*; and (b) completion of the *Global Leadership Profile*, a measure of complex-thinking *performance* attuned to the leadership context. I define these instruments in more detail later in this chapter;
- Has achieved past success influencing change in higher education as demonstrated by public acknowledgement of this work in the form of awards, promotions, news stories, or other similar accolades;
- Is currently engaged in change leadership work in higher education;
- Is willing to offer a window into his or her leadership practice in the form of participation in the various activities required by this study; and
- Meets proximity criteria defined by the researcher based on pragmatic considerations.

These qualifying criteria flow from my conceptual framework as outlined in Chapter 2 and additionally incorporate the pragmatic concern of proximity. With these criteria in hand, I use a combination of networking and online research to identify and prequalify

potential candidates for my study. For the networking I reach out to people in my personal and professional networks who have deep knowledge of developmental theory or the higher education landscape. This includes, among others, friends and colleagues affiliated with the Action Inquiry Fellowship (AIF) or Growth Edge Network (GEN), two communities of practice in the adult and leadership development space. As part of this process I use the research memo in Appendix F to share with these connectors a concise overview of the study and the kinds of leaders I seek to recruit. I also obtain from these connectors, whenever possible, introductions to leaders that they recommend and any first-hand information they have about the recommended candidates that might support me in developing a hypothesis about those candidates' complex thinking capacities. Before contacting recommended leaders, I first research their backgrounds online to gather additional information to support my thinking complexity hypothesis and otherwise prequalify them against the criteria above. This process yields six potential candidates that I invite to meet with me to learn more about the research. A sample of the email I sent requesting an initial meeting with these candidates is provided in Appendix G. Three of these leaders agree to an initial meeting. All three respectfully decline but offer assistance in recruiting other candidates. One of these referrals I am able to successfully prequalify and ultimately agrees to participate.

In parallel to the networking activities above, I review the websites of colleges, universities, associations, foundations, and other organizations that participate in the higher education sector and meet my proximity criteria. I rely, in part, on learning experienced through this process to further narrow this search. For example, I begin my online search by reviewing local news sources, institutional websites, and industry publications to identify individuals who hold key leadership positions within the higher education field (e.g.,

president, provost, dean, consultant, foundation director) in institutions engaged in significant, well-publicized change initiatives that are likely to demand of leaders the kinds of complex thinking I'm studying. Over time, I learn that certain kinds of institutions and initiatives are most fruitful for directing me to the kinds of leaders I am seeking (e.g., institutions engaged in migrating from a more generalized to a more specialized focus, among others). I also develop a growing awareness of the kinds of language and behaviors reflected in the available information that warrant continued review of a particular leader (e.g., more flexible and conditional language; an action-inquiring stance (vs. rooted solely in advocacy); a more interdisciplinary or collaborative approach). This part of my selection process leads to an additional two candidate outreaches. Both of these candidates agree to an initial meeting and ultimately sign on to the research. A summary of the outcomes of each phase of my candidate search is provided in Table 6 below. A high-level profile for each of the leaders who agreed to participate follows in Table 7.

Table 6. Leader Yield at Each Phase of the Participant Selection and Recruiting Process.

Phase	No. of Leaders
Identified as potential candidates	51
Successfully prequalified	19
Invited to introductory meeting	9
Completed introductory meeting	6
Agreed to move forward with the study	3

Table 7. Profiles of Participating Leaders and Their Institutions.⁸

	Harold	Janine	Sherry
<i>Role</i>	Chancellor	President	Dean
<i>Institution</i>	State College & University System	Liberal Arts College	College of Arts & Sciences
<i>Sector</i>	public	private	private
<i>Location</i>	mixed	rural	urban
<i>Enrollment</i>	~35,000	~1000	~6,000
<i>Gender</i>	male	female	female
<i>Identified</i>	networking	combination	online research

At the point that each of these leaders agrees to move forward in the research I send them an onboarding email to thank them for expressing interest in the research and outlining next steps. A sample onboarding email is provided in Appendix H.

Assessing participants' structural complexity.

To provide a baseline and entry point for examining how my three study participants use complex thinking on the ground, I use two distinct research-validated methods to evaluate each participant's degree of thinking complexity, the Subject-Object Interview and the Global Leadership Profile. My process for incorporating each of these methods is described below.

Subject-Object Interview.

I conduct, with each participant, one ninety-minute Subject-Object Interview (SOI), a particular form of in-depth interview defined by Lahey et al. (1988) in their SOI manual. Research has shown the SOI to be a valid and reliable method for evaluating complex thinking capacity (Stein & Heikkinen, 2009). Moreover, scholars who developed this procedure report that many who experience this interview find it enjoyable and personally

⁸ To keep identities confidential all personal and institutional names have been replaced with aliases throughout this paper.

rewarding (Lahey et al., 1988). As such, I use this interview to demonstrate my commitment to engaging participants in a respectful and mutually rewarding process of deep inquiry, and to assess their capacities for complex thinking as defined by Kegan's (1982) subject-object theory. Since people do not regress in their epistemological development, confirmation of third tier complexity capacity at the start of the study indicates availability of this capacity during the remainder of the study (Kegan, 1982).

Prior to beginning each interview, I obtain the participant's informed consent using a version of the consent form included in Lahey et al.'s (1988) SOI manual, modified slightly to fit the context of my research. A copy of the modified consent form appears in Appendix I. I conduct the interview using the protocol appearing in the same manual, which I modified in two nonsignificant ways: (a) minor stylistic changes aimed at supporting my authentic presentation of the prompts in a leadership research context and (b) reordering of the prompts to locate more sensitive terms later in the progression (e.g., "success" comes before "anger" in my sequence). Precedents exist for modifying the prompts to fit the needs and context of the study (Eigel, 1998; Lahey, 1986). A copy of my modified protocol is included in Appendix J.

As outlined in the attached protocol, I begin each interview by moving through a series of prompts that, according to the SOI manual, have been shown to elicit good data for evaluating the *structure* of a person's thinking (e.g., anger, anxious/nervous, success, strong stand/conviction, sad, torn, moved/touched, lost something, change, important to me). I offer these prompts to the participant one-by-one, allowing time in-between for the participant to reflect silently on recent situations in her leadership practice that come to mind in response to that prompt. Once the participant has reflected on all of the prompts, I

engage her in reflective dialogue about her recent experiences as a leader by using different forms of inquiry to explore in depth how she personally makes sense of them.

After completing the interview, I have the audio file professionally transcribed and verify the resulting transcript for accuracy. Next, I apply procedures outlined in the SOI manual and my deep knowledge of Kegan's subject-object theory, to establish a granular complex thinking capacity score based on Kegan's twenty-one step progression. In addition, I submit the transcript for independent analysis by a trained SOI scorer.

My preparations to personally conduct and analyze the SOI include: (a) close review of the SOI manual (Crib Notes for Analyzing Structural Complexity that I created based on this review are provided in Appendix K), (b) development of a summary of working guidelines for assigning scores and sub-scores based on this review, and (c) completion of four hours of one-on-one coaching with the scorer I ultimately also hired to analyze the transcripts. As part of this training I completed an abbreviated practice SOI with a leader in my personal network who agreed to help me refine my skills in this area. I had that interview transcribed with his permission; independently scored it; and received feedback on my analysis during one of my coaching sessions. I completed this one-on-one training prior to conducting subject-object interviews with any of my research participants; the hours referenced above are distinct from additional time spent in consultation with the scorer about research participants' SOI transcripts (explained below).

Results of the SOI analysis for the three participants in this study are summarized in Table 8 below.

Table 8. Summary of Participants' Thinking-Complexity Scores Based on Interviews Conducted Using the Subject-Object Interview Protocol.

	<u>Independent</u>		In consultation		Final
	<i>Certified Scorer</i>	<i>Researcher</i>	<i>Certified Scorer</i>	<i>Researcher</i>	
Harold	4	4/5	4(5)	4(5)	4(5)
Janine	4(5)	4(5)	4(5)	4(5)	4(5)
Sherry	4(5)	4(5)	4(5)	4(5)	4(5)

Note that for Janine and Sherry the certified scorer and I assign the same score to the SOI transcript based on our independent analyses. For Harold, the trained scorer and I assign different scores that were within two steps of each other (using Kegan's granular, twenty-one step scale that includes transition positions). In each case, after completing our independent review we review our findings together via phone or email and present evidence from the transcript to support our respective scores. In Harold's case this leads to our each adjusting our score by one granular step resulting in agreement on a third score that fell between our two. This is not a compromise that 'splits the difference' rather, it is a case of learning from each other and exploring alternative interpretations of the data, each in the context of deep knowledge of the theory.

Global Leadership Profile.

In addition to administering to each participant the SOI which is a measure of developmental *capacity* grounded in Kegan's subject-object theory, I also administer to each participant the Global Leadership Profile (GLP), which is a measure of developmental *performance* grounded in Torbert's developmental action inquiry. Whereas the SOI is an interactive assessment that uses targeted inquiry to continually invite participants to make sense of their experiences in more complex ways, the GLP is a self-administered sentence

completion task that provides an assessment of a person's "center of gravity" action-logic (Torbert's term for stages of complexity). Thus, the GLP measures the level of complexity a person is sitting most comfortably in at the current moment, or likely to exercise under typical conditions. It represents a good indicator of the level of complexity I can expect to observe participants regularly exercising in an action context looking across a variety of situations and settings.

The roots of the GLP can be traced back to the Washington University Sentence Completion Test (WUSCT) (Loevinger, 1998; Loevinger & Wessler 1970 as cited in Torbert, 2004). Cook-Greuter and Torbert in association with Harthill Consulting evolved this measure for use in organizational settings and to strengthen its validity with respect to measuring tier three levels of complexity (Torbert, 2004). Over time, this collaboration led to parallel development of the Sci-MAPP and the Leadership Development Profile (LDP), the latter of which was subsequently evolved by Torbert, in collaboration with Barker and Action Inquiry Associates to become the Global Leadership Profile (GLP). Extensive validity and reliability testing has been performed at each stage of this evolution and separately on each of these instruments (Torbert, 2013; Torbert & Livne-Tarandach, 2009).

I administer the GLP using a version of the forms and process developed by Action Inquiry Associates and provided to me by email. I modify the overview and instructions slightly to fit the research context. For example, I remove the self-assessment step and change the framing language to remove references to the executive coach (see Appendix L). I incorporate an informed consent process using a consent form I created. (see Appendix M). I use the Sentence Completion Form in its unmodified form, as provided by Action Inquiry Associates (see Appendix N). I email these forms to participants and request that they return the signed consent form and completed sentence completion form to me. Upon

receiving these forms, I send them to Action Inquiry Associates to be scored by a trained analysts using qualitative analysis supported by statistical research. Outputs from this independent analysis include an assessment of the center of gravity action-logic, as well as a report describing in general terms (not specific to the participant) the features of the assessed action logic and suggestions for transforming it toward the next action-logic. I arrange for this report to be sent to me as specified in the consent form for this activity. I offer to share this report with participants once my research is complete and all of them express interest in receiving it.

All three participants score at the *redefining* level of complexity (which is the term used in the GLP for Torbert's *individualist* stage). This maps to Kegan's 4(5) making the results consistent across the two measures. Having the three participants demonstrate this particular level of complexity is important for several reasons. First, it indicates that the participants are capable of exercising the kinds of complex thinking I am studying in action. Second, although the branch of literature applying constructive-developmental theory to explore aspects of leadership practice is growing, I am not aware of any studies that focus exclusively on leaders demonstrating this center of gravity complexity level. Finally, leaders with redefining levels of capacity are the fastest growing group among managers and consultants (see Action Inquiry Associates GLP Results Report). Moreover, research suggests that transitions between stages in different tiers are more difficult to achieve than transitions between stages within a given tier. The transition to the third tier is particularly difficult because modern Western society and many organizations provide ample supports for stage transitions up through the achiever level but fall short as a holding environments for encouraging vertical development beyond the second tier or lateral development within it (Drath, 1990; Kegan, 1994). Some postulate that this partly explains why many tier three

professionals become dissatisfied working in conventional organizational settings and choose to work outside those arenas (Berger & Fitzgerald, 2002 as cited in McCauley et al., 2006). Some scholars suggests that managers in tier three may be misunderstood when their actions are interpreted through less complex epistemological lenses (Berger, 2012; McCauley et al., 2006). Thus, we have a lot to learn about, and from, those who have successfully made this transition and are effectively practicing leadership both from that psychological vantage point and from within conventional organizational settings.

Data collection.

I gather data using a mix of different methods including: two assessments of thinking complexity (described above); three rounds of in-depth interviews exploring how leaders make sense of and approach their adaptive leadership work; a series of ethnographic observations of leaders carrying out this work in variety of situations and settings; and collection of a small sampling of extant texts related to the leader's most significant areas of responsibility. In combination, these methods enable me to obtain the kinds of data I need to gain visibility into the multiple layers of subjective-objective reality that dynamically constitute the process I am studying—the exercise of complex knowing in lived adaptive leadership practices of three higher education leaders. The methods and assumptions guiding each of these data collection methods are detailed below.

In-depth interviews.

For each case I conduct three 90-minute *in-depth interviews* with the participating leader in that case. I audio tape all interviews with participants' permission, arrange for the audiotapes to be professionally transcribed, and verify the completed transcripts against the audio tapes. I conduct the interviews using a phenomenological approach. In this approach, the researcher asks primarily open-ended questions, listens actively, and explores different

facets of participants' own responses to gain deeper understanding of how those participants understand and articulate their experiences (Seidman, 2013; van Manen, 1990). The 'phenomenon' I seek to study through these interviews is *uses of complex thinking in the lived adaptive leadership practices of three higher education leaders*. I use phenomenological interviewing because it produces subjective data that is both grounded in the participant's own lived experience and can be analyzed for structure (the way a person thinks) as well as content (what a person thinks).

Embracing Seidman's (2013) assumption that "without context there is little possibility of exploring the meaning of an experience (Patton, 1989; Schuman, 1982)" (p.20), I utilize an adaptation of this researcher's three-interview series. As Seidman (2013) explains, this design "allows both the interviewer and participant to explore the participant's experience, place it in context, and reflect on its meaning" (p.20). Following Seidman, each of my three interviews emphasizes one of these elements (context, experience, reflection). However, rather than defining the context primarily in terms of the participant's life history as Seidman does, I define context primarily in terms of the local and broader institutional environments in which my participants are carrying out their adaptive leadership work. Also, I use a less compartmentalized approach to these interviews in the sense that despite the primary emphasis of each interview on one of the elements above (context, experience, reflection) all three interviews incorporate a mix of these three elements, as described in more detail below. The three interview series is also useful for supporting dialogical movement between the data, my interpretations of that data, and external reference points. After each round of interviews I analyze the data in the context of earlier rounds, document themes and findings, identify inconsistencies or themes worthy of further exploration, and apply learning to refine subsequent interview and observation protocols. The questions used

in each interview loosely reflect the areas of emphasis described above and, in all cases, are specifically designed to allow great freedom for participants to lead the conversation and focus attention in areas that they feel are most relevant to their leadership practice. Next I provide a closer look at the purpose and protocols for each round of interviews.

First in-depth interviews.

I use the first round of in-depth interviews to: 1) begin learning how participants understand their work environments or the context for their adaptive work; 2) identify the different kinds of adaptive work they are pursuing and get an early sense of how they are understanding and approaching their work in these areas; and 3) identify specific lines of adaptive work they are engaged in that might serve as focal points for investigating more closely how they use complex thinking on the ground. A sample interview protocol for the first in-depth interview is provided in Appendix O. Note that the protocol is organized in four parts. The first part offers some framing language to situate the interview within the larger research trajectory and invite authentic dialogue from the participant. The second part defines a primary open ended question to be used as a starting point for the conversation. The third part lists a number of additional questions to be optionally pursued if those topics are raised by the participant and time allows. The fourth part provides a summary of research questions, research objectives and “sensitizing concepts” (Charmaz, 2006) from the conceptual framework to be used in preparing myself for the interviews or as a quick reference during the conversation. Toward the end of each first interview I work with the participant to identify a small number of specific areas of adaptive work we had discussed, that appear to meet the characteristics of the focal work domain (described earlier) and could be used to guide subsequent research activities. In follow-up to the interview I review these selections in the context of the rest of our conversation as documented in the transcript, and

email each participant a brief summary of how I am currently understanding these focal work domain boundaries. In this email I also outline next steps for identifying and scheduling opportunities for me to observe the participant practicing adaptive leadership in those areas in the coming months. A sample email for one case appears in Appendix P.

Second in-depth interviews.

I conduct the second in-depth interview in each case as soon as possible after I have completed observations of the leader in that case (my approach to the observations is described later in this chapter). During this second round of in-depth interviews I explore participants' subjective experiences of the different situations I observed, including how they interpreted certain events within those situations, how they made sense of different internal and external dynamics in play and, most importantly, why they acted as they did. I also discuss with them more generally how they understand their adaptive leadership work in the focal domain areas. A sample protocol used in the second in-depth interviews is provided in Appendix Q. Once again this protocol contains a number of distinct sections. The first (Framing) helps me locate the current research in the broader research trajectory and underscore for the participant the broad purposes of the interview. The second (Part 1) documents changes in the way I am thinking about the focal work domain boundaries and guides me in working with the participant to refine our shared understanding of these boundaries. The third section (Part 2) lists a series of questions aimed at exploring more deeply leaders' understanding and experiences of their work in these focal domain areas. The fourth section (Part 3) includes a series of observations, emergent findings, and hypotheses I have formulated based on analysis of data gathered so far and serves as a guide for helping me test, validate and explore more deeply how the leaders understand and experience these aspects of their work.

Third in-depth interviews.

I conduct the third in-depth interview in each case approximately one to two months after completing the second interview. During these interviews I ask open-ended questions that invite participants to join me in reflecting on their responses to the first two interviews in the context of the larger set of challenges facing higher education today. Put differently, I enlist participants' complex thinking capacity in service of reflecting on how such capacity, wherever it exists in the system, might or might not serve a particular function in the evolution of higher education. A sample protocol used in the third in-depth interviews is provided in Appendix R. Once again the protocol incorporates multiple sections. The first section situates the interview in the research process and highlights the purpose of the interview. The second section defines the primary open-ended question to be used as a starting point for the conversation. The third section incorporates a mix of questions aimed at (a) exploring specific aspects of the intersection between complex thinking and the demands of leading change in higher education today and (b) testing, validating, and exploring in greater depth specific observations, hypotheses, or artifacts (e.g., metaphors, haiku, images) I developed or identified based on my analysis of data so far. The fourth section guides me through the process of bringing closure to the data collection portion of the research, which involves expressing gratitude for the participant's engagement with the research and outlining next steps in the research process.

Ethnographic observations.

Between the first and second interviews in each case (with a few exceptions to this timing) I observe the leaders carrying out their work in a variety of situations and settings. Working in conjunction with the participants, I purposely select the situations to observe based on the following criteria:

- The work being carried out by the leader in that situation is adaptive in nature and related to one or more focal work domain areas selected for that case.
- The situation is likely to call forth the leader's most complex thinking (e.g., rife with conflict, ambiguity, or tension).
- The situation takes place during the data collection period.
- The situation is open to the public or the leader is able to provide any authorizations required for me to be present for that situation.
- My presence in that situation is unlikely to noticeably impact the general course or outcome of the situation.
- The mix of events selected for the case cut across a variety of situations and settings and incorporate both mundane (e.g., faculty meeting) and specialized (e.g., endowment manager selection interviews) kinds of situations.

To complete these observations, I make multiple trips to the leader's work sites and other locations where they are pursuing their adaptive work. The situations I observe include both internally focused events, such as faculty, staff, and Board meetings, as well as externally focused events, such as legislative testimony, meetings with local business groups and meetings with external service providers. In many cases, the situations I observe represent formal milestones in a larger process of moving forward a particular focal challenges or aspect of that challenge. In other cases, I observe how a leader uses a single meeting or presentation to advance more than one of the focal work areas in concert, such as during select faculty, staff and Board meetings. I spend approximately fifteen to twenty-five hours observing each participant in action, for a total of approximately sixty hours spent observing the three leaders in different situations and settings, carrying out efforts to lead change with respect to the focal challenges selected for their respective cases.

During observations, I look for decisions and actions being carried out by the participants in context, as well as clues about the types of thinking that appear to be driving those behaviors. For example, I pay attention to how a leader states the objective of a meeting, or to dynamics in play when the leader intervenes to shift a conversation. I also look for clues that suggest how certain thoughts or emotions might be motivating a particular intervention or advocacy. As described above, I use the second round of in-depth interviews to explore connections between the behaviors I observe and the types of thinking being exercised by the leader during those situations. I capture my observations in field notes formatted to distinguish description and reflection (Creswell, 2009). A copy of my observation protocol appears in Appendix S.

In the course of my observations, from time to time I find opportunities for occasional, informal interviews and casual conversations with the leader participant and others in the community with a perspective on the leader's adaptive work. In these conversations I seek perspectives on specific leadership incidents that I observed or learned about; or allow the conversation to take a more organic course as I work to establish rapport with the participants. Findings from these interviews are documented in field notes. Soon after each observation or set of related observations I review my notes and elaborate from memory on my descriptive field notes as well as expanding on my reflective field notes as I interpret the events through my conceptual lens, to form hypotheses about the complexity of thinking shaping and being shaped by the leaders' actions and other factors.

The yardstick I use to decide when I have enough observation data is one of *sufficiency*. Sufficiency in the research context refers to the point at which enough themes have been uncovered in the data collected to answer the research questions and make valid claims that add knowledge to the field, regardless of whether or not additional themes could

continue to be uncovered (Charmaz, 2006). Sufficiency is different from the commonly used criteria of *saturation*, which is defined as the point beyond which no new themes are uncovered (a ‘full’ account of the phenomenon is possible from the data gathered). I am in good company in selecting sufficiency as my ‘doneness’ criteria for observations. A number of scholars working in the post-positivist tradition have critiqued the concept of data/sample saturation pointing out that conscious and unconscious decisions made by the researcher about such things as ways of organizing data, levels of conceptual nuance sought and discerned, levels of self-reflexivity practiced, and other factors, inevitably affect a researcher’s assessment of when saturation is achieved (e.g., Charmaz, 2006; Mason, 2010). For example, Charmaz points out that a more granular level of analysis is almost always possible; thus, the choice to stop is not actually about failure to produce new themes, but a choice (or capacity) to pursue a certain degree of analytic sensitivity. Because I engage in iterative waves of data collection and analysis I maintain an evolving sense of how well my data supports my ability to produce rich profiles of complex-thinking leaders in action and to elaborate meaningful themes that illuminate patterns in how they understand, experience, and enact complex thinking as a leadership resource. This process supports my ability to assess when my observations are sufficient to support my analysis and provide a basis for answering my research questions. Tables 9, 10, and 11 below document the observations I completed for each case.

Table 9. Observations of Harold at Work (Total hours: 15.5).

Event	Description	Date	Hours
Presentation to STATE Business & Industry Association	Local businesses (like chamber of commerce); simplify the issues; gain support for funding the system	Mar-19	1.0 hr
Internal meeting to prep for external ratings review meeting	Internal team with reps from system and college finance offices and Board of Trustees exchanged dialogue and feedback about presentation they are preparing to give to Moody's and S&P as part of ratings review process.	Mar-19	1.5 hrs
Academic Executive Council Meeting	Harold and system provosts; discussion of budget-related issues, quality frameworks, various updates to each other about Board committee business.	Apr-2	1.5 hrs
Public Testimony to State Senate Finance Committee	Presentation to Senate Finance Committee advocating greater allocation of state funds to public higher education, with emphasis on specific needs of 4-year degree granting institutions; speakers included Harold, star student, and parent group representative.	Apr-15	0.5 hrs
Board Committee Meetings (Shadowing)	Educational Excellence 8:30-10:30 Audit (11:00-12:00) Student Governance group (12-1) Financial Affairs (1:00p-3:00p) Executive (3:30-4:30) (and spaces in-between)	Apr-16	8.0 hrs
Board of Trustees Business Meeting (open portion)	Full Board including Harold, presidents, and trustees (including governor-appointed, alumni-appointed, and student-appointed trustees)	Apr-17	3.0 hrs

Table 10. Observations of Janine at Work (Total Hours: 27.25).

Event	Description	Date	Hours
Board of Trustees Meeting (open portion)	• Field Work Term student experiences • conversation w/head of alumni co-op • update on strategic planning/10 yr. goals • marketing agency update	Feb-06	4.0 hrs
Senior Staff Meeting	Thinking through a grant proposal we are in the process of writing; will discuss strategic plans & other 'larger arc' stuff; We're tailoring the proposal for a specific foundation, but the meeting will give a larger view into our thinking. Desired/ measurable "outcomes" discussion.	Mar-11	1.5 hrs
Board Invest. Committee Fund Mgr. Interviews	Board Investments Committee (& rep from student group advocating more socially responsible investing) met with six investment management firms selected through RFP process to compete for opportunity to manage college's endowment.	Apr-27	7.5 hrs
Faculty Meeting	Monthly meeting of faculty & senior administrators. Agenda included: update on 2015 enrollments, status of website redesign, and update on strategic planning/ positioning strategy (among other updates and announcements).	Apr-30	1.5 hrs
College Steering Committee Meeting (CSC)	Recently established committee to address communications and initiatives bridging faculty and administration; Agenda included: reactions to positioning strategy, institutional progress addressing issues of diversity and inclusion, faculty issues including relations between CSC and Faculty Affairs Committee (FAC)	Apr-30	1.0 hrs
Faculty Meeting	Monthly meeting of faculty and senior administrators. Agenda included updates and discussion related to: positioning strategy developed for College by third-party consultant; voting on membership in various faculty and faculty/administration committees; admissions updates	Jun-04	1.5 hrs
Campus Tour	Private campus tour guided by current College student	Jun-04	.5 hrs
Board Meeting (Shadowing)	Board Meeting Full Board, various sessions - Advancement & Alumni Engagement - Commons Renovation Presentation/ Tour - President's report (positioning strategy) Audit & Risk Committee Mtg. (12:30-1:30) Investments Committee Mtg. (1:45-2:45)	Jun-05	8.0 hrs
Faculty Meeting	Monthly meeting of faculty and sr. administrators. Agenda includes discussion of ongoing efforts to increase diversity of College faculty, especially with respect to 7 open faculty searches, & connection between these efforts & broader aim of helping College more fully embody the value of diversity.	Sep-03	1.75 hrs

Table 11. Observations of Sherry at Work (Total Hours: 15.0).

<i>Event</i>	<i>Description</i>	<i>Date</i>	<i>Hours</i>
STEM Working Group Retreat	Cross disciplinary conversation aimed at developing a collaborative vision for STEM education at College and process for working more collaboratively to identify and make progress in priority areas.	Jun-8 and Jun-9	4.0 hrs 5.0 hrs
Faculty debrief re: creating new online masters' programs	Debrief of two earlier meetings in which faculty from (a) public health and (b) communications management, separately met with the external vendor (selected by senior leaders?) to help create online Masters programs for these departments. Debrief session gathered both groups together to share questions, concerns and plans.	Aug-12	0.5 hr
Online Course Evaluation Planning Meeting	Meeting with the dean, IT dept. staff, department chairs, & (assoc. provost) to plan for migration of course evaluations from paper to online process. Discussed scope, timelines, expected challenges, roles & job assignments, communications, etc.	Aug-18	1.0 hr
Campaign Celebration STEM Panel Prep Meeting	Brainstorming to identify shared vision for STEM panel discussion scheduled as part of campaign celebration event; dept. heads from different stem disciplines discussed thematic "messages" to highlight and identified stories to share during the panel.	Aug-24	1.0 hr
Campaign Celebration STEM Panel Dry-Run	Meeting of STEM working group to prepare for upcoming panel discussion at campaign celebration event.	Sept-8	1.0 hr
Unscheduled Conversation with Dept. Chair	Informal conversation in which department head requests clarification from Sherry of roles with respect to efforts to develop relationships with potential STEM funding and program development partners.	Sept-8	.25 hr
Campaign Celebration (select events)	STEM panel discussion including opening remarks by Sherry	Sept-11	1.25 hr
STEM working group session	STEM working group session: review draft white paper presenting vision for interdisciplinary approach to STEM; attends to recruiting & retention at all stages of the pipeline and building an inclusive community that seamlessly includes underrepresented groups.	Sep-29	1.0 hr

Extant texts.

In the process of prequalifying candidates, researching participants' institutional settings, and preparing for observations, I gather various texts produced by or reporting on the institutions that the leaders work for or outlining relevant facts related to the specific

focal challenges I was watching them address. For example, I keep copies of handouts from the meetings I attend and obtain copies of select documents referenced in those meetings or that were produced as a result of them. In addition, on one or two occasions I seek out publicly available information (e.g., newspaper articles, institutional websites, legislative timelines) that provided relevant context for issues or institutional references I am encountering through my fieldwork. I use these texts primarily to help immerse myself in the participants' local settings and for instrumental purposes such as directing my attention to incidents of potential interest to observe or discuss, raising my awareness of factional perspectives on the focal challenges, or otherwise orienting myself to the community and the leader's actions within it. I do not perform systematic analysis of these documents or use them to verify facts and interpretations shared by my participants.

Data analysis.

Emic coding.

During the early phase of analysis (in the windows between initial data collection activities) I complete emic coding of the transcripts for the opening interview (Subject-Object Interview), the three in-depth interviews, and my observation notes for each of the three participants. For this part of the analysis, I code for ways of understanding and acting that seem related, directly or indirectly, to one or more focal work domain areas selected for the case, and meet one or more of the following criteria.

- Appear frequently throughout the interview or across different interviews with the same participant.
- Are accompanied by the participant's use of super-ordinate language "the macro of it all" "the overarching challenge I face."
- Are accompanied by extremes of tone or body language (e.g., long pause, sigh).

- Seem connected in some direct or indirect way to one or more sensitizing concepts from my conceptual framework (a summary of these concepts is provided as part of the sample in-depth interview protocol in Appendix O).

I create a separate list of emic codes for each participant, so that I can stay true to the participants own language, as needed, and identify nuances captured by different codes related to similar sensitizing concepts. However, before adding each new code for a given participant, I first check to see if it is similar to an existing code I had created for another participant. Thus I make deliberate choices about coding terminology to capture either cross-case similarities (S_TIME/TIMING/TIMLINESS; J_TIME/TIMING/TIMLINESS) or cross-case differences (S_MULTIPLE LEVELS, LAYERS, GOALS; J_MULTIPLE ENTRY POINTS). In many cases I find that code distinctions based on particular subsets of data in each case don't stand up when looking across larger subsets of data from those same cases (in other words both codes apply to some data in each case). I handle this by either combining the codes and expanding the definition, or using both codes on both cases. These cross-case comparisons help me develop more nuanced understanding of each code and identify: within-case differences, across-case similarities, and across-case differences. I code the data for both content (e.g., H_PARTNERSHIPS) and structure (e.g., S_DEGREES OF X-NESS; J_NON-LINEAR THINKING). Copies of the Emic codes created for each of the three participants are shown in APPENDICES T, U, and V.

Design artifacts.

In addition to the text-based sensemaking processes described above (coding, themes, comments, memos) I also use the production of design artifacts as a way of making sense of and inquiring more deeply into the themes and patterns I am seeing in the data. For example, I create a mobile representing the multi-institutional system in which one

participant (Harold) is exercising leadership to help me investigate how a system such as his responds when multiple complex elements within it are intentionally (by me) or unintentionally (by the air from the overhead fan) manipulated. This raises new insights for me about the way in which the uniqueness of the system elements both contributes to the overall aesthetic and balance of the system and offers a variety of entry points for initiating movement that affects the system as a whole. This helps me think more critically about some of the nonlinear power relationships and deep interdependencies among the institutions forming the system that Harold describes. As I create the mobile I ask myself questions such as — where is Harold in this? Reflections on this question lead me to the realization that one of the key themes I am seeing in the data (which I had both coded and documented in memos) relates to the way Harold applies pressure to different parts of the system in order to promote movement in other parts of the system (H pressure; lower case code text indicates in-vivo code using participant's own language). Moreover, thinking about this theme in the context of the 3-D mobile helps me realize when I go back to the coded data that Harold thinks about applying pressure in ways that reflect both linear cause-effect kinds of influence paths and less linear paths akin to the way a reiki healer or Eastern practitioner with knowledge of how a healthy system operates identifies a blockage in the system and removes it in order to restore the flow of energy and healthy functioning of all parts of the system.

In another example, I use a particular medium (a patterned card stock covered with a thin black film that can be scraped off to reveal the design underneath), to capture a metaphor offered by Harold (“managing the road metaphor”) to describe the different ways that he educates people and aligns them toward particular goals. My instinct to use this particular medium (which leads to the production of this artifact) helps me better understand

and articulate another theme I'm seeing in the data, which involves the use of an educative strategy to create a larger shared frame grounded in a broader view into the underlying realities shaping a particular situation. A third artifact I create is a watercolor painting capturing the way in which another participant, Janine, listens carefully into the unfolding reality of different, loosely related change initiatives, remains actively receptive to new, connecting ideas that come out of these dynamics, and takes swift and timely micro-actions that leverage these connections and uncover new options for larger action paths. In one last example of my use of artifacts to capture in more holistic ways some of the insights that are emerging from the data I create short haiku leveraging the constraints of the form (5-7-5) to help root out the most essential aspects of the themes and patterns I'm uncovering and to explore relationships between these themes. Copies of several of the artifacts described here have been incorporated into the case findings.

Analytic memos.

In addition to using the comment and memo features in atlas.ti to elaborate on particular codes in the context of a given case or cross-case comparison, during the analysis windows between different rounds of interviews and observations I also prepare within-case analytic memos as another way of:

- documenting and developing emergent themes based on review of transcripts, observation notes, coded data, and artifact design processes,
- identifying open questions and findings of note that seem worthy of closer examination,
- exploring connections between different codes and themes, and between interview and observation data,

- developing a sense of which themes and codes are most salient in the data and relevant to the field, and
- bracketing my assumptions and testing the empirical robustness of different themes.

As I write these memos I pull quotes and examples from the transcripts and observation notes, thus providing a paper trail of how my thinking about specific themes and bits of data supporting them evolves over time. Also, while each memo is focused on a particular case, I highlight from time to time connections I see between themes and patterns in the case being investigated and those I've documented in other memos for other cases.

Etic coding.

During this phase of coding, which I begin for each case after I have completed the emic coding, I create a much smaller list of etic codes drawing select concepts and language from constructive developmental theory and principles of adaptive leadership theory. I define only those codes that my emic codes and analytic memos suggest I will be likely to find, or that seem somehow useful for interpreting the themes uncovered via emic coding, but require more data to understand. For this phase of coding I use a scrivener database, as it allows me to more easily move between coded data and summaries I am developing (a form of memo) about each code.

Peer debriefing.

At various points in the process above I engage my peer debriefer in dialogue about specific questions I have, findings I'm uncovering, and how I see the data supporting or thwarting my developing story. In several cases our process includes looking at bits of data together and exploring different ways to interpret that data in the context of the rest of the

data, our respective knowledge of the theories, and our personal experience working with complex-thinking leaders in action contexts.

Convergence of themes and emergence of findings.

Next, I draw on the outputs from the many activities above, including my growing, embodied understanding of the themes and their relationships, and, in the context of my research questions and my objective of producing findings of relevance to the field, engage in the process of experimenting with different ways of capturing the essence of the story that I've uncovered in my travels between the data, the framework, and participant responses to my evolving ideas, as represented in these different artifacts. As part of this process I attempt to filter these different findings through the various theories I'm working with in a more explicit way and develop a number of more consolidated lists and models aimed at communicating the essence of what I'm seeing. After several attempts at this using different theories and combinations of theories, I realize that, both within in each case, and across the cases, certain story lines continue to appear no matter what lens I filter the themes and data through. Thus, out of this process of theory and data triangulation key findings emerge. I then return to the data yet again to verify the strength of specific evidence to support these findings and to identify which bits of data best illustrate them.

Validity

This study is designed to illuminate in rich detail, and with high internal validity, how my three study participants use complex thinking to understand their leadership work and shape their decisions and actions in context. The following features of my research design promote such validity. First, as described above, I incorporate several forms of triangulation as defined by Heath (2001) including: two forms of *data triangulation* (across case and across situations within each case), method triangulation (interviews and observations), *theory*

triangulation (Kegan and Torbert), and *researcher triangulation* (peer debriefing) (Crewel, 2009). I understand triangulation as a process of "looking in from different angles and vantage points" (Thomas, 2011, p.68) to gain a more complete view of the phenomenon under investigation. I use this process to unearth new insights about the themes I am uncovering and to test the evidence for my claims. *Peer debriefing* in this study involves sharing with a colleague who has substantive knowledge of my topic and complex thinking capacity, data that is most relevant to my emerging themes and inviting her to challenge my interpretations and suggest alternatives. Second, I maintain *systematic field notes, research memos, and coding tables*, which are available for review by my committee. Third, my process of sharing with participants (in interviews, informal conversations before and after observations, and select emails), emergent themes and findings, as well as select artifacts based on or in the process of developing those findings (haiku, watercolor, metaphors) and inviting reflection and discussion from participants could be considered a form of *member checking*. This is an additional type of researcher triangulation in which the study participants have the opportunity to examine and shape the development of findings and offer perspectives on their validity. Finally, I practice personal and epistemological *reflexivity* (Willig, 2009) through exercises designed to uncover and document my assumptions and associations, such as "bracketing" (van Manen, 1990, p.175) my assumptions in reflective memos and separating description and reflection in my field notes.

Ethics

IRB training and approvals.

Prior to beginning this study, I completed the Research with Human Subjects training required by my institution's Institutional Review Board (IRB) and obtained the Board's approval to proceed with my study using the procedures outlined in my IRB

application. In addition, I completed, approximately a year after the initial training, a training update module also required by my IRB. A copy of the Notification of Approval letter from the IRB is provided in Appendix W. The study was approved with exempt status indicating a minimal risk to participants. A copy of the Notification of Exemption Determination Letter is provided in Appendix X.

Confidentiality and data security.

As specified in my IRB protocol I use the following procedures to safeguard my participants' privacy and ensure confidentiality.

- I store all field notes and other handwritten documents containing sensitive information in a secure file in my personal office.
- I store all research data in password-protected files on my personal computer.
- I obtain written confirmation from the transcription service that they have destroyed all copies of the audio files.
- I configure my computer to ensure data backups are stored to a separate, password-protected location that only I can access.
- I mask all names of individuals and organizations in transcripts and other texts shared with select others (e.g., my peer debriefer and faculty committee).
- I use aliases for all individuals and organizations appearing in my report.
- I use discretion when introducing myself in meetings I observe, using specific language provided by participants, as requested.
- I do not reveal by any other means the names or identities of any participants in this study, institutions for which they work or that they reference, or other people or organizations discussed during our interviews or the meetings I observed.

Consent processes.

I use a three-part consent process to obtain participants' informed consent to participate in different phases of this research. First, I obtain consent for their participation in the opening interview which is conducted according to the protocol for the subject object interview (SOI) described earlier. A copy of this Opening Interview Consent Form is provided in Appendix I and reflects an adaptation of the consent form provided in the SOI manual. Second, I obtain participants' consent to participate in the Global Leadership Profile leadership assessment activity, and to have the results emailed to me. A copy of this Global Leadership Profile Consent Form appears in Appendix M. Third, I obtain participants' consent to participate in the remaining research activities associated with this study and to have me incorporate findings from these activities into reports and presentations that are developed using the procedures for protecting confidentiality outlined above. A copy of this form appears in Appendix Y.

Partners in co-inquiry.

I view my research participants as mutual partners in a process of co-inquiry. It is their wisdom and action I seek to illuminate, and their challenges, trials, and questions that guide which branches of the path we explore in most depth. I believe it is not I examining them, but we, together, examining their practice. I make every effort to schedule research activities at times and in places that are convenient for them and invite critical feedback on my evolving interpretations of their work. I am deeply grateful for the time and access they have provided to me and make efforts to communicate this gratitude in ways that express my authentic appreciation for their generosity.

Benefits and Limitations

This study contributes new knowledge to the field by providing a deeper understanding of what complex thinking looks like for three proven adaptive leaders exercising complex thinking in natural higher education leadership contexts. By doing so, it helps bridge gaps between theory and practice in the fields of constructive developmental theory and adaptive leadership theory. In addition, it illuminates points of intersection between two major constructive-developmental theories and between these theories and adaptive leadership theory. However, the following limitations apply.

- This study shows how leaders who have been successful in the past exercise complex thinking in the present. However, past performance does not guarantee future success. This study does not empirically examine the effects of participating leaders' practices on the communities they serve. Nor does it investigate how the application of particular forms of complex thinking lead to particular outcomes within these communities. The study does, however, offer hypotheses about the way that such links might operate.
- This research is designed to provide windows into participants' leadership practices, looking primarily through their eyes, with some external validation in the form of my observations of them in select situations, and, in a small number of cases, in the form of perspectives volunteered by others during the situations I observed, or documents shared with me by participants. I do not, for the most part, triangulate participants' interpretations of events against the perspectives of other participants in those situations, except with respect to a small number of select incidents that are clearly called out in the paper. This reinforces the point that I am not trying to, nor can I for the most part, based solely on data collected

for this study, draw empirical conclusions about the external validity of participants' interpretations of the situations they describe.

- Since I am intentionally observing leaders in complex situations, my descriptions of their practice should be interpreted as illustrations of their use of complex thinking in such situations, not as evidence that they use complex thinking in all situations.
- Because I investigate the leadership practices of only complex-thinking individuals, all of whom demonstrate the same level of thinking complexity, I am unable to draw empirical conclusions about whether, if at all, the ways of thinking and acting detailed in this paper are (also) likely to be exercised by leaders exhibiting different levels of complexity. In other words, I cannot draw empirical conclusions indicating how leaders who are less, or more complex than my participants would handle similar situations. However, I can (and do) pose hypotheses about such differences drawing on my theoretical knowledge.
- Forms of thinking are subjective processes that cannot be directly observed except in oneself. As such, my analysis of participants' thinking processes is based on mediated data, which can be a source of bias or error. Triangulation across methods helps me mitigate such errors.
- Like all researchers working with developmental theory, I must be mindful of how my own capacity supports my ability to understand and apply the theory. While I have demonstrated some capacity for post-conventional organizing through psychometric testing,⁹ at times I have felt that I was working at the edge of my

⁹ I profiled as Strategist based on my responses to the Leadership Development Profile in 2005.

understanding. Notably, developmental theory holds that people can intellectually understand one stage beyond where they currently profile.

- Research and theories of constructive-developmental theory indicate that the capacity to exercise the highest levels of complex thinking is at least valuable, and arguably necessary to lead adaptive change in complex twenty-first century organizations. In this study I do not test this link, however my findings will be useful to researchers who strive to do so.

Having variety in my participant group across gender, ethnicity, role and institutional context provides a broader range of circumstances to qualitatively explore, thus producing more entry points for generating dialogic responses to my findings, as well as providing a range of contextual factors to explore in terms of how they interact with the phenomena under study. I do not quantitatively analyze differences in application of complex thinking along these dimensions, nor strive to generalize findings related to participants with particular identity dimensions to groups that these individuals identify with on these dimensions. However, findings from this study may spark questions about such differences, which can be explored through future research.

Scholars underscore the importance of creating research texts that produce a *dialogic response* in their audiences, which means texts that invite readers to engage the text in a meaningful way that pushes their own thinking forward, whether through resonance or dissonance (e.g., Lather, 1991; van Manen, 1990). Lawrence-Lightfoot (1997) explains this dialogic response as a manifestation of the idea: “*in the particular resides the universal*” (p. 14). In this scholar’s view, the more specific and rich an interpretative description becomes the more we can see ourselves in it, relate to it, and dialog with it. Offering a fountain of such rich, interpretive descriptions of complex-thinking leaders in action, this study is poised to

evoke a dialogic response from readers, and, therefore, to spark new questions and insights that provide entry points for future research. In particular, the more concrete and embodied descriptions of how specific forms of complex thinking are used by my participants in different contexts and situations can support future researchers in applying quantitative methods to investigate the link between the use of these forms of complex thinking in context and different aspects of leadership effectiveness.

Process Interlude: Organization of the Three Case Analyses

Given the wide-scoping, integrative quality of my participants' adaptive leadership work, I found myself wrestling with a tension between defining the focal domain for each case broadly enough to capture the multifaceted, dynamic nature of their understanding and action, and narrowly enough to offer platforms for deep analysis of data I had obtained through the specific 'windows on reality' that I had experienced. A solution emerged from my preliminary analysis, which served the dual functions of (a) documenting findings from this early phase of analysis, and (b) providing orienting frames for deeper analysis within and across cases. This solution took the form of a multi-tiered analytic framework situated within the wider-scoping "focal domain" defined earlier in this chapter.

This solution reflects the finding that leadership activities aimed at *understanding adaptive work* (e.g., diagnosing system dynamics, identifying widely shared values within the community, unbundling adaptive challenges, and evaluating potential tradeoffs of different action strategies) and activities aimed at *mobilizing the community to engage in this adaptive work* (e.g., directing attention to the adaptive challenges, managing levels of distress, influencing necessary learning) are mutually informing and, at times, conflated (e.g., a conversation aimed at co-constructing a strategy for advancing a particular line of work both engages the community in that line of work, and provides insight into key factions' perspectives on that

line of work). Both aspects of leadership practice—diagnosis and community mobilization—are present in each section of the detailed case analysis; however, some sections (e.g., lines of work, environmental snapshots, adaptive challenges) emphasize how leaders use complex thinking as a resource for diagnostic activity (understanding their adaptive work) and other sections (e.g., key strategies, action scenarios) emphasize how complex thinking informs leaders’ mobilizing activity. To orient the reader to this structure, I offer the following section definitions:

Within “Stage Setting”:

- *Introducing the Leader at Work.* Portrait of the leader “standing in life” in the context in which I observe him or her practicing adaptive leadership on the ground. Includes a high level description of the institutional environment, an overview of key areas of responsibility, and a demonstrative foreshadowing of how I observed that leader making sense of, navigating, operating on, and functioning within that context, in the process of carrying out specific lines of adaptive work.
- *Focal Work Domain.* Rough outline of the specific area(s) of leadership responsibility that I examine up close for that participant; this represents the outer boundary for the scope of lived leadership practices that I investigate. In each case, although the participant’s leadership practices extend outside this boundary, all practices that I investigate up close fall within it. Remaining tiers of this analytic framework (defined below) represent findings from early analysis framed by this outer boundary and entry points for subsequent, deeper analysis of more specific areas of leadership understanding and activity.

Within “Case Findings”:

- *Major Finding (shaded box)*. Integrative statement capturing the essence of how the leader’s thinking complexity manifests in his or her lived leadership practice within the timeframe and focal domain investigated.
- *Narrative Description of Major Finding*. More expansive description of the major finding highlighting salient themes explored in subsequent analyses. In each case, this finding foregrounds a specific type of adaptive challenge that the leader repeatedly identifies as both a thwart to thriving within the community and a leverage point for adaptive change; each of these conceptualizations reflects complex understanding of the work facing the leader and the community. It also foregrounds one or more complex-thinking-informed patterns of activity that I observe the leader regularly pursuing in the process of helping the community address those adaptive challenges.
- *Lines of Adaptive Work*. For each case, I specify two lines of adaptive work, each representing an aspect of thriving that the leader describes as being important to the community and thus representing a key outcome that the leader strives to help the community achieve.
- *Environmental Snapshot*. For each line of adaptive work, I provide a descriptive account of framing context shared with me by the participant, which provides relevant background for interpreting how that participant uses complex thinking to understand and approach that line of work.
- *Key Strategy Using Complexity*. For each line of adaptive work, I define one action strategy that I saw that participant regularly using to carry out that line of

work. I use this strategy as an anchor point in subsequent analysis exploring how that leader draws on complex thinking to progress that line of work.

- *Adaptive Challenges.* For each line of adaptive work, I describe one or more noteworthy roadblocks that the leader has diagnosed to be primary thwarts to the realization of the values or outcomes represented by that line of work.
- *Action Scenarios.* For each line of adaptive work, I offer a small number of interpretive action vignettes, centered on a particular action stream or mid-term goal the leader has undertaken in support of advancing the line of work, and that well illustrates key themes in how I saw that leader using complex thinking more generally, to define and carry out that work. I deliberately choose a mix of scenarios that cut across: the mundane and the exceptional, the interpersonal and the institutional, and a wide range of situations and settings.
- *Roadmap to Detailed Findings (Table).* Provides a snapshot of the contents of subsequent analytic categories that emerged from extensive triangulation of the data in early rounds of data analysis and thus serve as both analytic outcomes and frames for deeper analysis.

Chapter 4.

Portrait of Harold Practicing Adaptive Leadership on the Ground

“Let’s drive our own future”

—Harold, SOI:1100

“The battle is around that true transparency”

— Harold, IDI1:464

“Incremental is not fast enough”

— Harold, IDI3:623

“Let’s drill down on that a little deeper”

— Harold, IDI2:303

“I think they are intertwined”

— Harold, SOI:1091

“So we came up with the idea of a pathway”

— Harold, IDI1:1302

Stage Setting

Introducing Harold *at work.*

Both a first generation college graduate and a doctor of philosophy, Harold is an accomplished higher education leader and lauded innovator. When I first travel to his office in December 2014 to invite him to participate in my research, I am struck by the way in which he holds his considerable authority with a measured poise that seems to both command and offer respect. Over time I come to appreciate this quality as an embodiment of the productive tensions animated by his unyielding passion for catalyzing meaningful change at a significant scale, his attunement to the stark realities of leading such change in a highly political, financially constrained, ideologically fragmented, rapidly changing public higher education context, and his deep empathy for the people who are engaged in or affected by the changes he seeks to influence.

Harold practices adaptive leadership from the vantage point of chancellor of a state college and university system made up of four regionally accredited, four-year degree granting colleges and universities, each charged with a distinct public education mission and headed by a president.¹⁰ The university system represents substantial scale, scope and complexity with its four system colleges combined enrolling approximately 35,000 students annually across a diverse range of graduate and undergraduate, residential and nonresidential programs spanning a wide spectrum of disciplinary and professional fields. The broad mission of the university system is “to serve the higher education needs of the state,” a charge that is ambitious in scope and interpreted in a multitude of ways by the many

¹⁰ In this paper I refer to this state college and university system using the terms *state university system* and *university system*, interchangeably. When speaking generally about the four colleges and universities comprising the university system I use the term *system colleges*. When speaking about specific system colleges within the university system I use specific aliases that I have assigned to those institutions which include *College A*, *College B*, *College C*, and *LGU*.

constituencies who have a stake in how it develops. Hinting at the university system's double bottom line, at a more granular level its mission emphasizes a commitment to broad access and affordability, excellence in educational programs and resources, and research that benefits the state and its citizens as well as the region, the nation, and society.

The university system forms one part of the larger public higher education system in the state with the other part being the community college system, a small network of nonresidential, two-year degree granting colleges each headed by its own president and collectively governed by a separate chancellor and Board of Trustees. Although these two state higher education systems (the university system and the community college system) are not set up as state agencies, both were established through acts of state legislature and are ultimately accountable to the citizens of the state. This makes them highly vulnerable to changes in state economic and political situations, such as an aging state population with increasingly less interest in funding higher education and changes in political priorities ushered in with each new government administration.

Moreover, the university system is located in a region of the US that boasts a strong higher education sector with close to one million students enrolled annually in colleges and universities in that region, split approximately evenly among public and private institutions (National Center for Education Statistics, 2013a, 2013b). System colleges regularly compete for enrollments against private and out of state competitors who are, in most cases, both less vulnerable to local economic and political forces and, in many cases, working with much larger funding bases drawn from larger endowments, higher tuitions, or more robust external funding pipelines. Although based on tuition price alone, several of the system colleges are among the most affordable options for state residents seeking four year degrees in the region, innovations in financial aid such as need-blind admissions and need-based

scholarships have made higher priced private and out-of-state colleges more accessible to many state residents, further increasing competitive pressures.

As chancellor, Harold is responsible for overall administration of the university system. He heads up a central office of approximately sixty-five staff who provide shared services to the four system colleges in the areas of finance, budget, audit, general counsel, and human resources. In addition, he serves as the chief advisor to, and executive arm of the twenty-seven-member Board of Trustees whose elected and appointed members collectively govern and provide strategic oversight for the university system. Board membership includes: the governor, eleven governor-appointed members, the state commissioners of education and agriculture, the chancellor, the four system college presidents, six alumni-elected members and two student-elected members. Board membership shifts annually with staggered terms of key appointed and elected members. Board services carried out by the chancellor and the four system college presidents represent points of continuity in a process of continual uncertainty and churn.

Focal work domain: Strategic budgeting.

During Harold's first interview, we discuss a number of strategic initiatives that he is working on, all of which incorporate adaptive elements. These initiatives include: navigating the bi-annual state budget appropriations process, engaging trustees and system college presidents in more robust strategic planning and mission development activities, enhancing perceived and actual system office capacity, developing system-level partnerships and/or centralized functions, expanding community college partnerships, shifting the office culture from siloed isolationism to a more collaborative approach, and orchestrating an appropriate response to reports of misconduct by athletic coaches at system colleges. After exploring these different aspects of Harold's adaptive leadership work, we agree that I will focus my

observations in two areas:

- Navigating the bi-annual state budget appropriations process.
- Engaging the Board in more robust system-wide and system-level strategic planning and mission development activities.

Harold describes his leadership in these areas as being “intertwined” and emphasizes the adaptive nature of this work.

Over the next several months I observe Harold in a number of situations and settings, most of which relate in some way to the bi-annual state budget appropriations process or university system budget and financial management processes more generally. Although I am not able to observe the particular kinds of strategic planning activities we had initially thought I might (e.g., mission development), I find strategic themes woven throughout Harold’s work. During Harold’s second interview we discuss this circumstance and agree that an appropriate scoping might somehow blend the two issues bulleted above. As such, I zoom out from the current cycle of state budget allocations to look more broadly at the domain of budgeting (one of five primary areas of Harold’s administrative responsibility) giving emphasis to specific lines of adaptive strategic development work within that domain that I feel I have the greatest visibility into, and represent a significant focus of Harold’s energy during the study period. The specific lines of work I select are defined in the sections that follow. As context for my findings, I offer here a very brief overview of the university system budgeting process to orient the reader to this domain.

The university system reports combined annual revenues from public and private sources in the vicinity of one billion dollars.¹¹ According to Harold, about ten percent of

¹¹ Source: University system FY2016-17 state budget allocation request. Revenues based on gross tuition/fees. Not netted for student financial aid. Capital additions excluded.

these funds are sourced from the state, representing a per capita state funding level that is among the lowest of any state university system in the nation. The remainder of these revenues are raised by the university system through other internal and external sources (e.g., tuition, fees, grants, investments, etc.). The amount of revenues that can be raised through the bond portfolio is dependent on the ratings assigned to the university system by the rating agencies, a process that I had a glimpse into during one of my observations. Revenues from tuition and fees are linked to enrollment levels and fluctuate from year to year with changes in the demographic and competitive landscapes. State funding levels are renegotiated every two years through a highly political budget allocation process in which various agencies and organizations funded by the state vie for a share of the state budget. The availability of external funding is shaped by the competitive landscape and trends driving development of the sector.

Each system college as well as the central administrative office develops and manages its own budget. The Board provides oversight to this process and applies pressure and support, as needed to keep budgets aligned with strategic priorities and otherwise monitor the overall health of the system. Several Board Committees play a key role in this process. Funds received through sources described above are distributed according to approved budgets with discretion provided to campuses at the level of line-item spending, although this is a recent development as I explain later. Budgets submitted by individual units (system colleges and the system office) are expected to meet certain parameters defined by the Board (such as operating margins, UFR, etc.), another recent development spearheaded by Harold. Budgets are reviewed on a regular basis and adjusted as needed, ideally with transparency to the Board, to account for changes in the environment e.g., student enrollments below projections.

Case Findings: How Harold Uses Complex Thinking to Understand and Approach His Adaptive Work

Major Finding: Working within and across multiple levels of the system, in an effort to promote efficiencies, synergies, and sustainability, Harold continually encounters different forms of part-whole tensions which he understands as multiple, embedded, value-reality gaps and approaches as leverage points for amplifying collaboration toward greater alignment of the parts in service of transformation of the whole.

Narrative description of major finding.

Harold strives to help different people and groups within the state university system, and throughout the larger state higher education system, become increasingly aligned in their definitions of what constitutes thriving so they can work collaboratively toward realization of their most fundamental shared or widely held values. In the process of doing this work, he repeatedly encounters different variations of a particular type of adaptive challenge, which I refer to in this paper as *part-whole tensions*. His descriptions of these tensions highlight discrepancies in the way that different actors in the system hold, test, and act upon the goals, assumptions, and values that are embraced or represented by a particular, narrowly defined segment of the higher education community or system, and the goals, assumptions, and values represented or embraced by some larger segment of the community which contains that smaller part as one of its constituent elements.

While Harold acknowledges that leaders have a responsibility to understand and advance the needs of the community segment(s) they most directly represent, he also believes that maintaining an overly rigid focus on these narrowly defined needs, without attending to interdependencies and potential synergies with broader value sets, can become problematic. Similarly, he believes that clinging to an overly static vision of *how* to move a

community toward its shared goals, whether these goals are shared locally or more broadly, is problematic. Thus, Harold encourages the community to attend to changes in the circumstances it faces, and work more collaboratively to expand collective understanding of this larger ‘reality,’ so that goals can be adjusted in light of what’s feasible and strategies designed to promote what’s broadly desirable, even when that sometimes requires making what appear to be “counterintuitive” (IDI3:106) moves.

At the same time, Harold believes that actions that hold promise for shaping the system as a whole must be pursued with deliberate attention to the full(er) range of implications associated with those actions. In other words, while he recognizes that change necessarily brings some amount of loss, he models the importance of seeking out hidden perspectives and multiple windows on reality. He believes that failure to do so leads to misdiagnoses of the true nature of the challenges facing the community and to actions that interfere with the larger community’s adaptive progress by producing, e.g., “unintended consequences” (IDI3:53) both for the organizations holding these narrow views and for others in the community affected by their decisions. Table 12 below provides a summary of the kinds of part-whole tensions Harold diagnoses and seeks to address.

Table 12. Sampling of Part-Whole Tensions Identified by Harold.

Faction	Part-Whole Tension
<i>University System Leaders</i>	Under the current university system governance structure, the values of autonomy for system colleges and oversight by the Board exist in productive tension. Each value represents only part of the larger value-polarity that Harold believes the Board is responsible for managing.
<i>Trustees</i>	Appointed and elected members of the Board are expected by their authorizing constituencies to represent the values held most dear by those constituencies. Yet all Board members are responsible for exercising governance on behalf of the larger university system community.
<i>State Legislators</i>	State legislators allocate monies to the university system as part of the state budget allocation process; Their need to develop an informed perspective on university system financial needs and management practices exists in tension with the sound-bite culture in which limited information is exchanged.
<i>Foundation Leaders</i>	Some education foundations pursue national higher education reform agendas; the unique needs and practices of particular state systems can be in tension with the national reform strategies being pursued.
<i>Other Sector Players</i>	The challenges facing higher education today are multifaceted and complex; When innovations developed to address parts of a problem are viewed as the solution to the entire problem, tensions arise.

To elaborate the major finding above, and support broader discussion of salient themes in how Harold uses complex thinking to understand and approach his work, I next present a detailed analysis of how Harold understands and approaches these different part-whole tensions as he pursues two particular lines of adaptive work, which are related to his responsibilities in the strategic budgeting domain and emerged as salient themes in the data. I provide Table 13 below to assist the reader in navigating the analysis the follows.

Table 13. Roadmap to Detailed Findings in Chapter 4.

Focal Work Domain: Strategic Budgeting			
Adaptive Work <i>aspect of thriving</i>	Key Strategy <i>using complexity</i>	Adaptive Challenges <i>value-reality gaps diagnosed</i>	Action Scenarios <i>actions & artifacts</i>
Line of adaptive work #1: Foster more strategic budgeting practices.	Promote dynamic balance between autonomy and oversight.	1. Attitudes and actions of system college presidents reflect “fiefdom” orientation, thwarting fuller embrace of their system governance responsibilities. 2. The Board is characterized by fragmentation of Trustee loyalties and fluctuations in adaptive capacity fueled by frequent turnover.	Budget Parameters
Line of adaptive work #2: Secure adequate funding now and later.	Create shared frames that illuminate larger realities.	1. Key constituencies hold narrow or untested perceptions of the realities shaping the university system’s need for and effective management of public funds. 2. Legislators and key industry players uncritically adopt particular solutions developed to address the high costs of education as if they were “silver bullet” solutions to the entire problem.	1. Timely Reframing Conversations 2. Business Association Alliance 3. Community College Partnership(s) 4. Industry Foundation Partnership

Line of adaptive work #1: Foster more strategic university system budgeting practices.

Environmental snapshot.

As interim chancellor, Harold had supported the Board’s decision to bring into being the current governance structure, which incorporates less hierarchical reporting and accountability relationships than the previous structure, as well as a division of responsibilities designed to promote a more dialectical, mutually transformative relationship between autonomous leadership activities at the local level and strategic leadership and oversight at the system level. Prior to this redesign, the system college presidents had

reported to the chancellor, and the chancellor had reported to the Board. Under that structure both the chancellor and the Board had held considerably more authority over campus-level decisions, such as campus line-item spending (e.g., hiring, promotions), and program development (e.g., which programs and services to offer, expand, discontinue). With the revised structure in place, presidents now enjoy considerably more autonomy in how they exercise leadership and management within their own system colleges, with respect to both budgeting and other domains of administration. At the same time, under the current structure the twenty-seven trustees, which include Harold and the four system college presidents, share responsibility for “figuring out” (to use Harold’s term) what level and kinds of oversight will be most effective for keeping campus activities aligned with the values expressed in the university system mission and other strategic documents.

Key strategy using complexity: Promote dynamic balance between autonomy & oversight.

Harold defines the relationship between the value of *autonomy* for system college leaders, and the value of *oversight* by the Board, as a dynamic tension to be leveraged in service of promoting synergies and sustainability of the system. He believes that in order for the structure to achieve its full potential, all leaders must honor both poles of this autonomy-oversight value polarity and work collaboratively to manage this dynamic in ways that serve the larger system.¹² Highlighting two key conditions he feels are necessary for supporting this process he explains, “It’s a structure that requires really two-way collaboration” (IDI1:429), and “the battle is around that true-transparency” (IDI1:464). Notice that both of these conditions point to a particular quality of working together as being important. It’s not just about working together, but actively engaging in *two-way* collaboration by which he means

¹² Harold doesn’t use the terms *poles* and *value polarity* but discusses them in relationship and operates on this relationship.

that both parties work to expand their collective frame of reference, create value-alignment, or otherwise shape and get shaped by each other. Similarly, he suggests that it's not just about each side exchanging information that advances its personal agenda (e.g., "I see the games that happen" (IDI1:438); "that's not honest, that's not true" (IDI1:458)) but *true* transparency on both sides, or sharing of critical information that provides both sides with a more expansive and consistent understanding of the realities shaping their collective and respective decisions and actions.

Adaptive challenges.

Harold describes how the university system's ability to enact these principles is thwarted on a number of fronts, several of which represent either overly narrow focus on one of the poles of this value polarity, or difficulties engaging in the kinds of leadership activity required to keep these values in dynamic balance, which he sees as critical for working in ways that promote synergy. Below I explore how he understands these challenges, looking first at his work with system college presidents, and then at his work with the Board.

Adaptive challenge 1: Presidents' fiefdom mentality.

Speaking about his work with system college presidents, Harold explains that some presidents seem to hold the value of campus autonomy so tightly that it keeps them from fully embracing their system-wide governance responsibilities. He feels that the "fiefdom" (IDI2:32) and "silo" (IDI2:32) mentalities exhibited by some presidents lead them to view the other system colleges as primarily competitors fighting for their share of a fixed pool of resources, rather than partners collaborating to find ways to best distribute and grow that pool. Offering an example of this competitive dynamic, he points to presidents' resistance to partner with other system colleges in the process of expanding online programs. Moreover,

Harold believes that this mindset leads some presidents to act in ways that are not aligned with system-level strategic aims or, in some cases, to overlook opportunities that would benefit their own institutions. For example, some presidents hesitate to support strategic procurement activities proposed by the Board or explore ways to better leverage available shared services, such as the central online call center, even when participation in these services offers a potential solution to critical budget shortfalls reported by their own campuses. The following excerpts give a sense of how Harold describes this fiefdom mentality as a thwart to the community's progress toward greater thriving. Later, in the action scenario section, I describe how these challenges define a focus of his efforts to influence adaptive kinds of learning in the community.

I look at the opportunity we have here. We have a small system of four different colleges that could be really leveraging each other...that haven't been except in very few back room ways like managing treasury functions. There's a built in resistance to that...I've got four colleges that have as their primary goal their autonomy. They want to protect their fiefdom and their silo. (IDI2:23)

The most challenging area of focus that I have, which is sort of the macro of all of it, is trying to leverage our being a system. If we have four different colleges and we look at where higher education is today and the change that's going on, I think it is a real mistake if we don't figure out how to leverage the four institutions together to be more than the sum of their parts. The biggest inherent challenge in that is that each of those institutions wants to be its own independent institution. (IDI1:269)

For the colleges it has all been about the autonomy focus. The original plan was it's not just all about autonomy. It's about autonomy over day-to-day management, but it's about functioning as a system around things where we could get efficiencies and have some larger strengths. For that half of the equation, it's almost as though they're tearing this sheet off and saying, "Ah, here it is," and leaving the rest over there on the table and not wanting to revisit that part. (IDI1:1055)

You've got to have confidence and...you've got to make decisions. But I think there's so much focus on that drive to be independent that [the presidents] don't leverage and take advantage of things that they're going to need for the long-term survival of the institutions. (IDI1: 488)

As these comments suggest, and my descriptions later on of how he worked to address these challenges further illustrate, Harold does not view this challenge as a *value conflict*, in which one group's primary value of autonomy is seen as being opposed to another group's primary value of oversight (as a less complex Harold might). Rather, he describes it as a *value-reality gap*, in which the presidents' (mis)understanding of relationship between the values as conflictual, is seen as an aspect of their shared reality that is thwarting realization of both the two values forming the relationship, and some larger set of values shared by the community as a whole (e.g., sustainable mission fulfillment in a highly competitive and political environment). Specifically, in the comments above Harold describes how presidents' over-identification with one element of value-pair blinds them to the fuller reality of their responsibilities under the revised governance structure, which is designed to promote both values. His statement at the end of the third excerpt above, "For that half of the equation, it's almost as if they're tearing this sheet off and saying, 'ah, here it is,' and leaving the rest over there on the table" is particularly interesting as it explicitly names the relationship ("equation") and its parts ("this sheet" ... "that part"). Later I describe how Harold operates on the relationship and its parts, while at the same time navigating other leaders' dichotomous understanding of this value-pair.

Speaking to his understanding of how senior leaders might work *together* to promote dynamic balance between autonomy and oversight, Harold remarks:

We have an opportunity to take and really run with this [new governance structure], and leverage now this clarity between where the Board should be and where the colleges have autonomy. Let's figure out how we really move forward and quickly...This is all new enough where it hasn't yet fully played out; it hasn't yet fully proven its value even. (IDI1:1029)

With this comment, Harold reveals that he does not expect the presidents to embrace the oversight process in its current form, as if it is designed to serve some predetermined role in

a static relationship; nor does he suggest that he personally knows how to achieve the kind of dynamic balance he believes is possible. Rather, he wants all leaders in the system (“*We* have an opportunity”; “*Let’s* figure out”) to explore, together (“*Lets figure out* how we really move forward and quickly”) how to best leverage this dynamic in service of advancing their larger shared purposes. Similarly, in the third of the three block quotes presented prior to the quote above, he expresses concern that presidents are “not wanting to revisit that part” suggesting that they are not seizing the opportunity to “revisit,” or critically examine what “that part” might look like in their view. Moreover, the content of the excerpt immediately above underscores the way in which he approaches this issue with an experimental mindset (“it hasn’t yet fully proven its value”) and conceptualizes this experiment of exploring the “opportunity to take and really run with this” as a moment within a longer time horizon (“This is all new enough where it hasn’t fully played out”). This illustrates a pattern I observed more generally in which Harold interprets the current form of different systems or processes as representing a weigh station or stopping point within a larger trajectory marked by qualitative change. Basseches (1984) describes this as an aspect of dialectical thinking.

While readers might wonder if Harold’s insistence that all university system leaders embrace system-level values reflects not a capacity to see and deliberately operate on this value relationship, but rather identification with system level values themselves, several findings in the data suggest that this is not the case. First, he suggests that one of the reasons the Board selected him as chancellor was precisely because they saw how when he was president of one of the system colleges he embraced both college- and system-level priorities and as a result was able to identify real opportunities for strategically aligned innovation (SOI:377). On a similar note, Harold expresses enthusiasm about a recent hire, one of the newest system college presidents, who he experiences as similarly applying a bi-focal lens

that incorporates both institutional and system-wide values (IDI1:995). Also, in his interactions with external systems, Harold shows how he not only holds the larger shared values represented by those systems as critical reference points in his work, but strives to operate on those value relationships as part of his adaptive work. I talk more about this later in this chapter when I describe how he understands his work with state legislators and external funding partners.

The data excerpts presented in this section (Line of Work #1, Adaptive Challenge 1) reflect several additional forms of complex thinking, as outlined in the Literature Review and Conceptual Framework (Chapter 2). First, in the second of the first four quotes presented above, Harold defines the challenge with reference to shifting dynamics in the external context (e.g., “If...we look at where higher education is today, and the change that’s going on”). Defining multiple, external, and situationally relevant reference points to guide collaborative work is something Harold does frequently throughout the interviews as well as in the various presentations I observe. As I explain in the Discussion (Chapter 7), this externally facing, multicentered approach to testing understanding and assessing progress is a type of complex thinking exercised by all participants in my research. Second, in several of the excerpts presented above, and frequently during our interviews, Harold conceptualizes the challenge as an “opportunity” that is in danger of being missed. Like all of my participants, Harold speaks often about opportunities, including missed opportunities, seeing opportunities, creating opportunities, and leveraging opportunities. Torbert (1994) and colleagues (Rooke & Torbert, 2005), in particular, describe how (early tier three) complex-thinking leaders demonstrate high attunement to unique moments in time and place that represent opportunities to engage in creative work.

Third, Harold identifies role clarity as an important aspect of this particular opportunity (e.g., “leverage now this clarity between where the Board should be, where the colleges have autonomy. Let's figure out how we really move forward and quickly”). This relates to a larger pattern I see in the way he seeks to obtain for himself, and promote for others, clarity of different aspects of people’s constructed perceptions of the world. This shows up, for example, in the way he continually directs attention to ambiguities in: terminology and definitions (“traditional,” “seat time,” “co-opted the term competency”); yardsticks and standards (“what counts toward the 65?” “quality index”); and shared assumptive frameworks (“budget parameter assumptions we can all agree on”). The complexity in this way of thinking lies in the fundamental awareness that, in a world of constructed meaning, shared understanding must be developed through a process that involves intersubjective testing of assumptions, so that gaps between differently constructed understandings that are masked by the use of common language can be discovered and addressed.

Adaptive challenge 2: Board fragmentation, turnover, and fluctuations in adaptive capacity.

Harold describes several challenges he encounters in his efforts to work collaboratively with the Board. One is that some trustees, similar to some system college presidents, seem to define more narrowly than they should the community whose thriving is at stake. As a result, he finds them acting in ways that promote the values expressed by those particular (narrowly defined) segments of the community, without strategically evaluating those values in the context of the values shared by the larger community.

Consider Harold’s comment below:

We have a Board that is relatively fragmented in many ways for many reasons, some of them structural. There are alumni Board members who are closely aligned with their institution, and when their institutions’ presidents are like, “We want more autonomy and we don't want to play,” they're more

supportive of that. I've got gubernatorial appointees who are trying to look out for the best interest of the state. Everybody is, but they come at it with a different lens. (IDI2: 32)

Here he explains how some trustees tend to orient their work toward achieving the values held dear by the constituencies who authorized their membership on the Board (place the work at the center of the part), instead of orienting that work toward the larger community whose interests the Board is charged with advancing, which includes and transcends that constituency (place the work at the center of the whole). As Harold's comment highlights, in some cases this issue takes the form of trustees joining a particular president in consistently prioritizing autonomous action over strategically aligned action. In other cases, it manifests as over-emphasis on the needs and interests of a particular community, such as the State or particular constituencies within it (e.g., alumni, students). This problem becomes confounded when different members of the Board prioritize different sub-communities' needs, thus producing a competitive atmosphere that interferes with the Board's ability to be transparent and collaborate.

Harold reports, "We try to set up an orientation to really remind [trustees] that the job is looking at the whole" (IDI1:434). However, he recognizes this solution is just part of the work required to address this value gap, both because it requires shifting people's relationships to their values (an adaptive challenge) and because "every year there's some turnover. Every year they revote the chair and vice-chair and Board officers. So, it's an unknown each year" (IDI1:373). In other words, he also recognizes that as long as values guiding the governance process reside solely in the Board members, rather than in the institutional practices supported by Board processes and infrastructure, the Board remains vulnerable to the frequent changes in Board membership and is challenged to establish a sustained baseline of shared values among its members.

Another challenging aspect of Harold's work with the Board, which also takes the form of a part-whole tension, is that in many years he finds the particular Board in place demonstrates insufficient capacity to carry out the difficult adaptive work required to govern strategically, which includes and extends beyond promoting a productive balance between autonomy and oversight. For example, in the following excerpts Harold elaborates on the Board's struggle to engage in difficult conversations and otherwise apply the kinds of pressure needed to align system college activities with the strategic aims of the system.

I think [trustees] have been really good about trying to stay out of the weeds and stay more strategically focused. But there's a challenge there in getting them to talk about real strategic issues that involve the colleges because, by statute, the presidents are members of the Board...They can't exclude the presidents unless it's a personnel issue or it's a very narrowly defined set of issues...The challenge, then, is for the Board members to feel comfortable enough speaking honestly and saying, I have concerns about College's enrollments. And I think we should really look at this or that. Or, I don't think the president of LGU should have made this decision. They can't have those conversations without feeling uncomfortable. (IDI1:395)

I think it's an uncomfortable role for a lot of Board members to take the hard line because I think they also would ideally like to think that we're all working together here. So, if the presidents see that, oh yeah, no, we can save money that way [for example through strategic procurement] [some trustees assume] the presidents are all going to jump on board with that; and realizing that that's not necessarily going to be the case without some incentive or without some push, trustees have got to make decisions about how far they're willing to go. (IDI1:1064)

It isn't as though there's a Board that feels, "These are the levers we need to pull, this is the vision of where we need to get to, and like it or not presidents, this is what we expect you to do." There's an awful lot of angst and a lot of trepidation about doing something presidents don't want to do. Yet we have this governance structure where the presidents report to the Board. It only works if the Board is really willing to hold them accountable and to push some different levers. (IDI2: 38)

Elsewhere Harold explains that the Board has a history of micromanaging the system colleges and, even today, struggles to focus on more strategic issues. He acknowledges that the pattern of micromanaging may partly reflect manifestation of the factionalized views

described above. It may partly represent habitual patterns shaped by the previous governing structure, which promoted a culture of control within the central system office and left presidents feeling obliged to actively protect and exert their autonomy (and the Board feeling obliged to support them in doing so). However, Harold believes that the Board's tentative embrace of strategic aspects of the governance role also points to limitations in some trustees' understanding of what a more strategic orientation for the Board might look like. For instance, commenting on the Board's initial response to Title IX complaints filed on select university system campuses, which have both social and budgetary impacts, Harold suggests that trustees' initial hesitance to taking a more proactive stance on this issue reflects, in part, their partial understanding of the Board's responsibilities. He ruminates, "It's not just simply delegating everything to the presidents as 'doing their job.' Figuring out what [the trustees] still have to own is a big part of that" (IDI2:533). Here again he expresses his desire for all leaders to not simply exercise the kinds of oversight he envisions, but work together on "figuring out" what that looks like.

Notably, Harold emphasizes in our conversations that the way these problems manifest in a given time period depends, in large part, on who is on the Board during that period. Since strategic initiatives often span multi-year timelines, the annual Board turnover introduces critical uncertainties that both Harold and the Board view as risks. Joining Harold in his concerns about the disruptive effect of frequent turnover, some Board members even proposed returning to the structure in which the chancellor has more direct authority and oversight over system colleges. Harold's perspective is that such a move "would just bring us into a conversation that would absorb the rest of the year" (IDI2:543). He continues, "I think instead we can get some real gains by making strategic planning adjustments and focusing on that as long as there is a critical mass on the Board to really stand behind and

support it.” (IDI:545). As I describe below in the Action Scenario for this line of work, he uses opportunities presented by this “critical mass” (which includes a strong core of trustees who attend to the interdependencies between the needs of the system colleges and the needs of the university system, as well as a Board chair who shares Harold’s commitment to collaboration and strategic development) to develop system-wide budgeting practices that embed these more collaborative values in the institutional processes. These changes become artifacts that will live on beyond the given Board’s tenure and continue to exert influence on the organization after those more expansive-thinking Board members are gone.

Glimpses of Harold in action.

Next I walk the reader through an action scenario that illustrates how Harold pursues a specific course of action which is grounded in the key strategy described earlier, designed to promote the learning needed to address the challenges just discussed (for Line of Work #1), and aimed at helping university system leaders adopt (and institutionalize) a more strategic approach to budgeting.

Action scenario: Budget parameters as levers for promoting wider engagement in strategic budgeting practices.

Recognizing the need to meet presidents where they are, Harold views the establishment of budget parameters as a way to provide presidents with more of the autonomy they seek (which Harold agrees they should have within limits) while engaging them in more strategically aligned budgeting practices and other adaptive work. He explains,

One of the things that the Board did, and this is where good leadership really matters on the Board and my role in advising the Board really can have an impact...If we look, for example, at our financial model, what we have done is set up some parameters so that rather than reviewing and approving everyone's line item budgets...it's more, “Can you put a budget together that maintains a n% operating margin and maintains an n% UFR” and giving those kind of parameters. I'm just saying, “Look, if you can build a budget that does that then great, you have autonomy in or around the details of it.” (IDI1:440)

As the executive arm of the Board, Harold holds influence with the trustees, but cannot act autonomously to implement system-wide strategic budgeting practices. In the above comment he alludes to both his recognition that the current Board has favorable levels of capacity for thinking more strategically about the budget (e.g., “good leadership really matters on the Board”) and his intentionality (e.g., “my role in advising the Board really can have an impact”) around working with these leaders to establish institutional mechanisms that promote more widespread, ongoing engagement in such practices. With the parameters in place, when system college presidents submit compliant budgets, they are spared the need to defend their every detailed allocation decision, while the Board gains some assurance that funds are being managed and spent in ways that support long-term health of the system. In other words, autonomy for developing and managing budget details is granted conditionally, with the condition being compliance with agreed upon parameters. If presidents are unable to meet these terms, the oversight function of the Board is activated and support (or pressure, as needed), is applied.

Harold recognizes that, particularly in this context of constrained resources, developing and managing budgets that meet the established parameters is not an easy task. According to Harold, doing so is likely to require presidents to implement cost-cutting and other efficiency-oriented changes at the campus level, such as dropping less essential programs or delaying capital investments. These kinds of changes are not easy to make, as they require managing distress related to losses experienced by groups most affected. Alternatively, Harold suggests this adaptive work might involve presidents’ experimenting with new ways of recombining, redefining, or utilizing system-wide resources, which might take such forms as exploring partnerships with other system colleges, the central system office, or even non-system institutions. Such experiments, he believes, can be used to find

creative new ways to both address the needs of individual system colleges and, in the process, achieve synergies and efficiencies for the system as a whole—a necessary outcome, he asserts, if the system is to remain viable in the shifting competitive landscape.

As a relevant side note, Harold continually invites, models, and works to facilitate broader engagement in such strategically aligned cost-cutting (as well as synergy promoting) experiments. For example, he models the partnering approach in his orchestration of partnerships with the state community college system (as described in Line of Work #2, Action Scenario 3) and sector foundations (as described in Line of Work #2, Action Scenario 4). He also works with the Board to establish new shared-services that can be leveraged by system colleges in ways that presidents and their respective college administrators define. We find one example of this shared service approach in his efforts to help system leaders maximally leverage the central online enrollment center. More specifically, after working with the Board and presidents to authorize and implement a central online enrollment center to facilitate expansion of college programs into the online space, Harold encourages the presidents to leverage that resource in creative new ways which, he believes, could help them solve problems affecting their own college operations and bottom lines.

However, feeding his belief in the need for more institutionalized mechanisms—such as the budget parameters—to promote needed experimentation and other adaptive work, Harold explains that university system leaders' receptivity to the ideas and alternatives above remains mixed, with certain system college presidents among the most resistant. This dynamic is well captured in the following brief account:

We have this online enrollment center, which is doing good work, but two of the things it could be most helping it isn't working with at all. One is LGU online, which thinks “We don't need you. We can go it alone”...Then we've got College C, where we have a president who came out of the [neighboring state] system, which is a system she has a lot of dislike for, so she has this innate dislike for systems. Her enrollments are down n%. So the online enrollment group had a conversation with her indicating we could help with any of your enrollments [not just online]...Their new enrollment vice president said, “That would be great. I didn't know you guys could do that. I would love to do that. Could we do this and that?”...He went back and had a conversation with the president there who said, “No way. I don't want to give up anything. I don't want to give up control”...It's really frustrating...It's an online enrollment center, but it will do whatever the campuses want it to do or not do... it could have been very easy for me to get defensive about [her response] but it was like, “Okay.” We're missing another opportunity here and it's not like they couldn't use the help. (IDI2:365)

In this vignette, we see Harold encouraging system leaders to join him in the process of continually redefining how the university system and its colleges utilize available resources and define the boundaries of different programs and services being offered (both to students such as through online expansion; and to administrators, such as through redefining the online call center). While his account reveals his frustration at “missing another opportunity” it also highlights his recognition that the logics shaping presidents’ resistance go beyond the analytical (e.g., financial cost-benefit model) to incorporate symbolic and historical considerations as well. This is, in part, what makes this line of work adaptive. For example, Harold recognizes that the presidents’ constructions of their situations include their need to maintain symbolic control of their core administrative functions (“We don’t need you. We can go it alone”)—a desire which, as he describes elsewhere, is informed by historical and ongoing debates about the relative merits of operating as a state system vs. splitting off into independently operating state colleges and universities. Presidents’ constructions of the situation, he realizes, also incorporate their assessments of the value of central administrative functions in general, as informed by their personal history with similar

systems, (“we have a president who came out of the [neighboring state] system, which is a system I think she has a lot of dislike for, so she has this sort of innate dislike for systems”).

Harold’s frustration with the presidents’ responses is born, in part, of his assessment that these alternative lenses are being applied without appropriate consideration of the particular nature of this situation; the particular ways that this university system is different from others (e.g., in the unique levels of autonomy granted to the presidents under the new governance structure), and could become even more so if leaders would work more collaboratively. In Harold’s view, there is a time and a place to exert autonomy and a time and a place to work more collaboratively. The budget parameters are designed to prime the system for one or the other, as needed, to maintain a dynamic balance that promotes both local agility and system-level synergies.

Recognizing that some presidents and trustees are hesitant to do the adaptive work needed to transform the system (as are many leaders, given that such work is difficult and arguably demands the kinds of complex thinking discussed in this paper), he helps the Board do *its* adaptive work by encouraging trustees to utilize the parameters as a way of helping the presidents do *their* adaptive work. Specifically, he counsels trustees to use the parameters as a lever for applying pressure on presidents to either engage in the adaptive work required to find efficiencies at the campus level, participate more fully in system-level efficiency options, or come up with alternative approaches. The following quote captures Harold’s thinking in this area:

This is where Board leadership really does have to be a partner with me and the system office to really achieve that greater good and that larger picture. Those financial parameters are one of the few levers the Board has, and has kept, that allows it to put some pressure on the colleges to gain efficiencies. If we're saying, “Look we're not getting into how much you're paying for your staff, how big of a raise you gave or didn't, who you hired over here, but you need to make a n% margin.” If they say, “No, we can't. We can only make n-.5%.” I say, “Wait a minute. If...we decide that we're going to do

strategic procurement together, then we're going to save X millions of dollars. That's going to get you to that n%. Would you rather do that? Or cut something else?" (IDI1:1062)

Thus, Harold sees the parameters not as constraints aimed at controlling how campuses operate, but rather as conditions aimed at aligning system college spending with system strategic aims and inviting Board leadership (including presidents) to “partner with myself and the system office” in thinking about what it looks like, and what it requires, to find efficiencies or otherwise “achieve that greater good and that larger picture.” Whereas in some cases adaptive leaders need to act quickly to reduce levels of distress in the community so its members can engage more productively in the adaptive work; in this case Harold sees the parameters as a way of conditionally activating increased levels of distress, in order to promote such engagement. Notably, even this pressure comes with an offer of autonomy. For instance, at the end of the excerpt above, Harold offers the presidents who can’t meet the parameters a choice “Would you rather do that? [strategic procurement across the system] Or cut something else?” He doesn’t tell them what to do, rather he offers them new choices and demands that they either participate in those choices or find other ways to achieve the shared values of efficiency and synergy represented by the parameters.

ALIGN PARAMETERS WITH STRATEGIC PRIORITIES & INJECT TRANSPARENCY.

Working with the Board to define the parameters, Harold deliberately strives to align them with strategic criteria. For example, he explains,

Part of it was aligning [the parameters] with our rating agency criteria for our bond rating level...If presidents wonder why an n% margin? Well, that's what the rating agency expects for the particular bond rating we're at. Also, financially it's enough return to allow us to invest in future capital needs. We need a certain UFR. At the same time that we have defined criteria, we've made it more transparent. That was one way to get broader acceptance. The challenge for me was making sure that the criteria were clear and aligned and actually would do what they were intended to do: give us enough resources for the long term. (IDI2:631)

Here he talks about how alignment of the parameters with strategic criteria adds to the integrity of the budgeting and financial management process as a whole. The parts of the budgeting process (parameters, bond rating requirements which affect revenue streams) become more aligned with each other in service of strengthening the process overall.

Moreover, he emphasizes his intentionality around injecting transparency into the process. Such transparency, Harold alludes to in the comment above, serves three functions. First, it signals Harold's receptivity to the presidents' expressed frustration with what they consider to be too much "opaqueness" (IDI2:633) in the budgeting process. Because presidents had requested more transparency in the process, granting this request as part of the transition to the parameters serves to address a value they already hold and helps garner presidents' commitments to the process. Second, working with transparency embodies a value that Harold believes is required for success of the particular governance structure in place, as mentioned earlier (in Line of Work #1, Key Strategy Using Complexity). Third, working with greater transparency promotes creation of a shared frame of reference among system leaders, a condition that he believes is important for motivating more collaborative work.

'FLAT FUNDING' AS SHARED FRAME, AND OPPORTUNE MOMENT, FOR CRITICALLY RE-EXAMINING STRATEGIC BUDGETING PROCESS.

Harold views the budget parameters as an integral part of a larger strategic planning and budgeting process. While he embraces the parameters as a good first step toward engaging the leadership more broadly in thinking along strategic lines, he feels that additional changes are needed. Two changes that he views as essential are the establishment of a longer time horizon for financial planning, and a more expansive set of shared assumptions around key cost and revenue streams. At the same time, Harold recognizes that there is built-in resistance to the idea of expanding strategic oversight in any way. As such, he looks

for opportune moments to engage the Board more broadly in thinking together about this. He begins by leveraging his relationship with the Board chair (his ally in influencing more strategic ways of thinking and operating) to engage in preliminary conversations around these ideas; thus establishing a foundational shared frame for thinking about the best way to move the system toward this expanded vision (or another vision that may emerge from that discussion). Also, he seizes the flat funding outcome of the state budget allocation process (described earlier)—a disappointing enough result to serve as a wake-up call about the (un)reliability of existing assumptions framing the larger budget planning process—to motivate a Board-level discussion aimed at critically examining the existing budget parameters and associated planning assumptions and process. He explains,

The tuition freeze definitely is not [possible at the levels of state funding we received]. But here's where now it wraps into the strategic planning. One of the conversations that I had set up was a conversation around multi-year budgets and financial plans...We looked at what does a budget look like if we frame it out with the assumptions that we all think are reasonable...Where does that take us? At the end of the five years, we're losing money. I think as the Board members saw that they realized we can't just do business as usual. We've got to put some other parameters in place...The colleges have a margin parameter and a UFR parameter; but they don't have a net tuition parameter, a cost containment parameter, or a parameter around limiting tuition hikes. If we put those things in place, that can shape strategic change. (IDI2:156)

In this situation we see Harold drawing on his attunement to happenings at multiple levels of the system, and his perception of the ways that these different dynamics connect, to locate an opportune moment for engaging a normally resistant leadership team in a collaborative discussion aimed at harnessing this 'bad news' to motivate a needed discussion aimed at developing a larger shared frame and set of strategic planning practices.

Line of adaptive work #2: Secure adequate funding, now and in the future, in a political context shaped by crisis-level concerns with the rising costs of higher education and associated competitive dynamics.

Environmental snapshot.

As I mentioned earlier, the State funds approximately 10% of the university system's budget. While this is a small proportion of the overall revenue base (in fact, state funding to this university system is among the lowest in the nation measured on a per capita basis), given that the budget is within a stone's throw of a billion dollars, this slice represents a substantial amount of money in nominal terms. Moreover, state funds are used by the university system to offset tuition expenses and thus shape decisions about the costs of tuition and other fees established at university system colleges. For this and other more strategic reasons, Harold considers the money received from the state to be a critical component of the budget.

During the biennial budget allocation process described earlier, advocacy groups (such as business associations), institutional leaders (such as agency directors, and university and community college system chancellors) and others give testimony to the state legislature and otherwise try to influence the amount of money allocated to public higher education and other sectors. The chancellor plays a central role in securing adequate levels of state funding for the state university system through the formal mechanisms of this process (e.g., written funding request, legislative testimony) and otherwise (e.g., dialogue with legislators and advocacy groups, presentations to community organizations, news editorials and press releases). Key stakeholders in this process—which include university system leaders, state legislators, business leaders, members of the public, and others—hold inconsistent (often narrow or inaccurate) views about the importance of state funding to the overall health of

the state university system and to the state's ability to meet the higher education needs of its population.

Harold also points to a number of other external factors that he believes affect the university system's ability to secure adequate funding in the near and far terms. One that he discusses in depth is widespread, crisis-level concern about the rising costs of higher education, a trend that has been documented both within the state and nationally, and across public and private sectors. This trend, which Harold describes as reflecting a complex mixture of truth and (mis)perception, further sensitizes legislators and the public to issues of cost, and motivates even closer public scrutiny of how the university system is utilizing available resources. In addition, Harold elaborates how these concerns about cost, and associated issues of value, have given rise to a number of sector-level trends, including expansion of online programs, development of competency-based degree pathways and performance-based state funding models. All of these innovations, he believes, have the potential to siphon funds from the university system and diminish its role in meeting the higher education needs of the state.

The vulnerability of the university system's state funding levels to these and other external factors is best illustrated by the fact that in 2012 state funding to the university system was cut nearly in half. According to Harold, this cut was implemented partly in response to shifting perceptions of the costs and value of public higher education as shaped by these external factors, and partly in response to national recessionary pressures combined with legitimate critiques of the level of inefficiencies that existed within the university system at that time. In the wake of this cut, the university system leadership took a series of steps including leadership changes, a shift from a culture of control to a culture of efficiency and shared services, reorganization of key processes, and new communication strategies. State

funding levels were restored to some extent in the last biennium (FY 2014-2015) but remain below prerecession levels, underscoring Harold's view that securing adequate levels of state funding is an ongoing adaptive challenge that requires sustained attention.

Key strategy using complexity: Educate key players in the community with the aim of creating larger shared frames that illuminate larger realities and support collaborative work.

Securing adequate state funding in the environment described above is no easy task. According to Harold, it requires vigilance to daily (sometimes hourly) fluctuations in political agendas, close scrutiny of interdependencies between other groups' attitudes and actions, and attunement to ways that these attitudes and actions, as well as other dynamics in the environment, are likely to evolve over time. As will be covered in the pages that follow, all these factors have the potential to shape, in direct and indirect ways, local and larger outcomes of interest to the university system, such as levels of support for state funding and the capacity of the system to compete for grants and enrollments (other sources of funding). This potential can best be addressed, according to Harold, by an education strategy aimed at illuminating and aligning the various constituencies to the part/whole realities of today and the potential unintended consequences of underinformed decisions based on more narrow understandings. This strategy includes engaging in specific kinds of leadership practices such as the following:

- Pursue (and demand of others) larger, more evidence-based understanding of reality by seeking and demanding objective (e.g., stress tests, outside advice), intersubjective (e.g., dialogue, conversations), and experiential (e.g., "academic exercise," "thought experiments," personal experience) data to test own and others' perspectives on issues.

- Give greater visibility to unexamined aspects of this larger reality, as situationally relevant, such as by uncovering hidden perspectives, local situational variables, and system dynamics, including the ways these dynamics interact and are likely to change over time (and invite others to do the same).
- Identify and uncover existing points of value alignment (and invite others to do the same).
- Attend more deliberately and consistently to the values and expectations of the larger system or community and how actions based on more locally held values and assumptions could have implications for that community or particular segments of it.
- Promote collaboration via partnerships and alliances to align actions toward promoting values that are currently shared by different segments of the community.
- Invite collaboration to address unanswered questions and explore new ways of thinking about, and addressing, persistent challenges facing the larger community.

The first two bullets above represent practices, which I saw Harold engaged in, that are aimed at mutual education to promote greater shared understanding of what's happening and what's needed; the final four bullets represent practices, or action strategies, that are aimed at discovering or pursuing together, new possibilities for action based on that larger shared understanding. Harold believes that, taken together, these kinds of activities help develop a larger shared frame, which can be leveraged to promote solutions appropriate for addressing a broader set of community needs.

Adaptive challenges.

In his efforts to carry out this educative strategy, Harold faces two kinds of part-whole challenges that threaten to impact, directly or indirectly, the amount of funding that the university system receives from the state in the current allocation cycle or in years to come. Although these are not the only challenges he faces in carrying out his adaptive work, I focus on them here because they well illustrate how he uses complex thinking to understand what kinds of learning are needed to advance the community toward its widely shared goals.

Adaptive challenge 1: Narrow, untested perceptions of a complex, dynamic reality.

Harold believes that some key state and university system leaders—who both hold influence over state funding allocation decisions and share the value of ensuring affordable access to quality higher education for state residents—maintain overly narrow views of the reality shaping the community’s ability to achieve this shared value. These narrow views, he believes, flow from the practice of attending to certain parts of the system or its context, while uncritically dismissing, or misinterpreting, other key aspects of that reality, which paint a more complete (more complex) picture of the situation. This, he believes, leads important players to act in ways that weaken the university system’s ability to obtain revenues through the state budget allocation process, or other mechanisms (e.g., enrollments, investment income), thereby diminishing the state’s capacity to achieve its goal of meeting the higher education needs of the state.

UNIVERSITY SYSTEM LEADERS.

The following comments highlight a small sampling of the kinds of realities Harold finds university system leaders ignoring.

We have realities, and those realities have come *really* to light this year around the appropriations, for example. I think many of the system leaders, not just the presidents but some of the staff, have not taken it so seriously. They've thought, "We don't really need the state. They only support 10% of our budget. Why are we spending so much time on them?" The reality is that 10% is going to make the difference between success or failure. In fact, 5% will when we look at the margins. I have institutions that will say, "We don't need the State. We could just go it on our own. It's not worth all the headaches from them." Yet they're only able to produce a 2% margin. Okay, so how are you going to manage with 10% fewer resources? You can't do it. (IDI2:54)

We also have a few [presidents] in the mix who think, "Why don't we just spin off and be private?" First of all, these are not private institutions. They are creatures of the legislature. The legislature isn't going to let that happen even if you want it to happen. Also, financially it's just not viable for them. They're not paying property taxes. They get the benefit of a lot of state infrastructure that's already in place. So there is this attitude that I've got to get past before I can actually get support for the decisions that have to happen. (IDI2:65)

The attitude referenced in the second excerpt (and reflected in the first), is a mix of the presidents' fiefdom mentality described earlier and a denial of realities surrounding the university system's relationship with the state, which both flows from, and reinforces, that fiefdom mindset. In the excerpts above, the aspects of reality that Harold sees presidents overlooking include: (a) the necessity of state funds to the financial health and sustainability of the system, (b) the indirect financial benefits that the university system receives from the state, and (c) appreciation of the autonomy-oversight dynamic between, in this case, the university system and the State. This dynamic mirrors that described earlier between system colleges and the Board, however, here, the university system represents the autonomous part and the State represents the body that provides oversight to ensure strategic development of the whole. The following quote reinforces this interpretation:

The Board is empowered by the legislature and Governor to represent the State and the State's interests. In my view, that's the way it should be. Knowing this legislature which is very turbulent, changes every two years, can swing from one end to another, has four hundred people with different agendas, it's impossible to get them too engaged without unintended

consequences that would actually have adverse impact on our serving the state needs. At the same time, I guess it's absolutely incumbent upon us to be making sure they understand what it is we are doing for the state: the importance of our role, why they should be happy to support us. (IDI1:1170)

STATE LEADERS.

On a similar note, Harold finds state leaders interpreting the university system's financial needs, operations, and spending strategies in ways that incorporate untested assumptions about the larger realities shaping these features of the university system. For example, he observes,

The state has just become accustomed to thinking, "They'll figure out how to make it work," and "We just have to hold their feet to the fire," and "They need to be more efficient," and is not recognizing that you can only do that for so long. It becomes a tipping point where it's no longer a viable, sustainable model. (IDI1:102)

Harold acknowledges during our interview that this thinking likely flows from historical failure of the university system to demonstrate its commitment to efficiencies. His acknowledgement of this historical context highlights appreciation of how understanding of the present is constructed through lenses shaped by events of the past. While he believes that historical lenses can be useful for promoting learning and motivating changes in the present, he suggests that in this particular case the learning has already been applied to good effect, yet the mindset persists as an unproductive habit of thought. In other words, he believes that historical lenses are most useful when they are adjusted over time to account for shifting conditions in the environment. For example, Harold explains that significant progress has been made in promoting efficiencies across the university system since the drastic funding cut. For instance, early on, such pressures motivated significant efficiency-promoting changes including: a transition to self-insurance, development of shared services, and process and structural changes aimed at shifting the culture within the central system office (over which he has more direct control) from a culture of bureaucracy to a culture of

efficiency, among other changes. Harold contends that persistence of this mindset in the face of these changes assumes a nonlinear relationship between pressure for efficiencies and effectiveness of this strategy over time (e.g., “it becomes a tipping point”). His more complex understanding of the situation is based on a time- and situationally calibrated historical lens.

Also, Harold reports that some legislators feel they need more information to make good decisions about funding the university system. He takes some responsibility for this gap, recognizing that university system leaders (like most sector players) have not yet arrived at a shared understanding of how to define and measure key performance criteria (e.g., “[if] the legislature says, ‘we’re going to cut your budget 20%’ What are we going to point to say, ‘Well, no, here’s how that’s going to hurt quality?’ We haven’t done a good job really measuring that” (IDI3:215)). Harold acts to address these gaps, such as by planting seeds to ripen these issues internally. (For example, he suggests to university system leaders that they begin thinking about what an effective “quality index” (IDI2:252) might look like.) At the same time, he explains that the aspects of university system that legislators are trying to understand are very complex and require communication strategies that are carefully calibrated to the realities of the environment (e.g., “it’s a complicated issue that putting in sound bite terms is not easy” (IDI1: 66)).

Harold also points out that certain interpretations (ways of making sense) of available information must be corrected to avoid wrong decisions being made for the wrong reasons. For example, in one case a legislator wonders why the university system is ‘holding back’ information about detailed expenditures, not realizing that the university system applies all the state monies it receives to subsidize a single expense: tuition expense. In

another example, legislators misunderstand the nature of the university system's business model. Specifically,

[Some legislators] thought, "Oh you guys are just sitting on a \$n hundred million rainy day fund." No. No. We've borrowed [almost twice that amount] against that because we've got to take care of our own buildings. We've got to do these things and you've never had to bail us out because we have this business model that actually works. That starts to resonate with them. (IDI2:967)

SECTOR LEADERS.

Finally, the following quotes highlight just a few of Harold's descriptions of the partial understandings held by other sector players including policymakers and the public. He both holds these larger dynamics in mind when pursuing specific activities related to securing state funds, and seeks to participate in conversations and initiatives aimed at giving visibility to the larger truths reflected in these statements.

There is more movement than what it feels like to us on an institutional level... [Interviewer: And that's a good thing?] No, it's just a reality. The pace of change is greater than what we normally see. Because we're normally looking in our own circles...But if you open that up to say, well nationally or even internationally, what's the pace of change? That circle isn't moving fast enough...Not just in terms of decision-making but *pace* of decision-making. (IDI3:643)

I think in many ways one of our biggest problems as an industry overall in higher education is that kind of echo chamber. So we look to each other. We get validation from each other...What accreditors are defining as outcomes and what institutions are saying meets that criteria for being outcomes-focused is not what the general public is impressed by. It's not something we can translate back in a way that policymakers really understand. (IDI3:247)

Part of our problem is that we're much more fragmented than the public perception, or even policymakers' general perception. They see higher education as this conglomerate. It's really very fragmented. (IDI3:546)

In each of these snippets we see Harold identifying a perception(s) that could negatively impact his quest for funding and which require deliberate education initiatives to illuminate

and align his contemporaries, some of which I review in the Action Scenarios following the next challenge.

Adaptive challenge 2: Illusions of “silver bullet” solutions to the rising costs of higher education.

Harold believes that mistaking the part (of a community, of a solution, of a truth) for the whole can bring dire “unintended consequences” (IDI3:53). While he acknowledges that losses are often a necessary (though uncomfortable) part of adaptive change, they should be weathered, he believes, with awareness of what they are, and who they affect, so that they can be more effectively evaluated in the context of the collective needs of the community, and managed with intention. For example, he points out how widespread dissatisfaction with the high and rising costs of higher education has spawned a number of innovations in the field aimed at addressing this cost problem. While he believes many of these innovations hold promise as catalysts for new ways of thinking about the purpose and form of higher education, he fears that existing fragmentation among core institutions in the field, and myopic focus on the needs of narrowly defined segments of that community, leave the field at risk of embracing those new approaches too quickly, broadly, and uncritically.

COMPETENCY-BASED DEGREE PROGRAMS.

For example, one trend Harold discusses in detail is the rise of competency-based higher education programs, such as those offering a bachelor’s degree based on a direct assessment of skills and competencies obtained through professional experience or otherwise (vs. participation in classes designed around a particular disciplinary or professional curriculum). Although he points out that there is considerable variation in the quality of these programs, noting that some represent little more than “diploma mills” (IDI3:1225), he applauds the innovative thinking that these programs represent and sees the higher quality versions of these programs as an important element of a larger solution for the

future. At the same time, he is concerned that legislators and the public seem to be embracing these offerings as “one-size-fits-all” (IDI3:352) solutions to workforce development (which he also points out is problematically being treated as the one-size-fits-all purpose of higher education). Harold acknowledges that this alternative, competency-based offering represents a valuable and useful degree pathway that meets a particular set of needs for a particular set of audiences. However, he finds it problematic that people are “jump[ing] on the bandwagon” (IDI3:181) to push this format across the board, instead of understanding it as a necessary and welcome part of a larger higher education landscape. The quotes below outline Harold’s view of the different forms this uncritical adoption takes, and the dire social and economic impacts he sees potentially flowing from these ways of thinking.

[A competency-based degree program] could be a great tool for different pathways. It could be a great tool for different audiences. But right now I don’t think it’s really being thought of that way. I think it’s not being thought of in terms of: Is it a solution for a small portion of the larger problem we have of education in this country? Or is it just “Hey I’ve got this idea. Let’s try to just push it out there and hope that it catches on?” (IDI3: 115)

One of the things that I can see happening down the road is that the idea of direct assessment programs is going to be very attractive to a lot of lawmakers at both the state and national levels who say, “Well, gee if we could have a college degree for \$n thousand then why are we paying [eight times that amount] a year for students to go to our state system?” And we’re going to end up, I think, with these unintended consequences where funding will get pulled away from the more transformative educational experiences that exist. I don’t want to say traditional because I think traditional has to change anyways...I think what will happen is we’ll see this larger dichotomy between those that have a significant educational experience and those that showed they had certain knowledge competencies and get a degree to hang on the wall. I think that one of the bigger dangers to transformative education, whether traditional or not, will be this gravitation towards low-cost substitutes. (IDI3: 49)

I think we’ve lost some of the language. We’ve had the term *competency*, for example, co-opted to mean *direct assessment testing*. I’ve heard it as recently as two weeks ago. Somebody was saying “The difference between direct assessment competency programs and regular education programs is that the

competency-based direct assessment programs don't measure you by seat time, they measure you by what you know." Well, the whole idea of seat time is that it's just an input. It's not the outcome. If you're getting grades, and graduating, and meeting the curriculum requirements in a traditional program, you should be graduating with competencies. I would venture to say that the majority of policymakers who are looking at this issue of competency education have just adopted that frame and language to think, "Well, competency is measuring what you know and traditional is seat time." (IDI3: 143)

PERFORMANCE-BASED STATE FUNDING STRATEGIES.

Another trend Harold discusses in depth is the agenda being pushed by one organization in particular, which has a strong voice in the field and believes that performance-based funding strategies hold promise as a means of increasing degree attainment among students who enroll in public higher education. While Harold shares the value of promoting greater degree attainment, and applauds organizations promoting this goal for their good work helping to shift the dialogue from enrollment (signing up) to attainment (earning a degree), he is concerned that the performance-based strategy, while an effective lever in some states, is being seen as a one-size-fits all model that applies equally well in all states. The quote below captures the essence of his concerns in this area:

It's a frustration with organizations that I think have a strong voice, that have already made up their mind on something else. For example, Foundation A has invested millions into higher education, has supported lot of good initiatives, a lot of good efforts; but I think it has this one-size-fits-all model and mentality around where higher education should go, and what it needs to look like. They're not as focused on some of those unintended consequences as I think they should be. (IDI3: 348)

OTHER SECTOR FUNDING STRATEGIES.

He offers a similar critique of strategies being pursued by other external funding sources. For example, below he describes a failure on the part of a different Foundation to consider more closely how its funding strategies, while well intended, and holding some merit ("We do need to try some different things. We do need to learn from it.") are

producing competitive dynamics (e.g., “cannibalizing”) that even the architects of these strategies would probably agree are not adaptive for the sector as a whole (“unintended consequences”). He explains,

Funding experiments is not a bad thing. It too has unintended consequences because if I look at system College A, which has been the lowest-cost, four-year program in the region, really struggle to provide that low-cost education. Now it’s competing with the Foundation B-funded direct assessment program for \$n thousand. As is the community college system...I’m okay with the idea that we need to experiment. We do need to try some different things. We do need to learn from it. We do need to figure out if some of these models are going to make sense. Some of these things are going to be the right thing for us to do. But let’s not try to purposely cannibalize programs...[Let’s] try to balance that with supporting some of the work that [existing programs] are doing while also experimenting. (IDI3: 467)

Additionally, he points out below the dangers of having state legislators “gravitate to” proposals such as loan forgiveness programs, which “sound like solutions” that address important concerns held by the public (e.g., rising tuition costs) and business community (e.g., rising outmigration of graduates), but fail to account for such variable interactions as the relationship between the “initial sticker price” of attending college and students’ decisions about where to study (“fewer that decide to stay to study”).

One of the things that I’ve run into with legislators, for example, is this idea of loan forgiveness programs. The problem is that we want to keep people in STATE. So why don’t we just pay for the students who decide to stay and work here? Well, on the surface, this idea that we forgive loans for people that stay and work sounds just great. But we have very limited dollars, and that means dollars coming away from something else. So it becomes a forced choice between buying down the initial sticker price or loan forgiveness. If the goal is to have more students in the workforce, it sounds great: we’re only paying for those that stay. But the reality is, we’re going to have fewer that decide to stay to study in STATE if the sticker price is higher. Loan forgiveness is going to be a less attractive tool to keep them here than the core sticker price. In the end, it’s not going to help to shift the money from the initial sticker price to loan forgiveness. It’s these things that people are starting to really gravitate to because they sound like solutions. (IDI3:183)

Finally, he observes that fragmentation within the sector, as symbolized by the implicit caste system, thwarts more collaborative sector-level efforts to evolve the field in

ways that attend to the broader range of shared values that exist, including preservation of low-cost pathways to higher education. Harold fears that public higher education is not given enough credit for the kinds of transformative experiences it does offer, which is partly an artifact of its place in the caste system, and partly its own fault for failing to innovate at a fast enough pace or proactively define and measure quality.

In summary, Harold believes that the tendency for legislators and others to perceive innovative initiatives such as those outlined above as substitutes for public higher education (meaning that they see them as costing less but delivering comparable value) has the potential to draw funding away from the public higher education system (both universities and community colleges) and thwart realization of the value of providing broad access to transformative education experiences. This is an unintended consequence that Harold actively works to avoid through his education strategy and associated actions.

Glimpses of Harold in action.

In this section, Harold explains how he employs his “illumination” strategy on multiple fronts to educate himself and others to the larger realities he and they understand to be shaping the university system; as well as partners with key others in a process aimed at developing a more shared understanding of what is happening, what is needed, and what are the best (multiple) ways forward.

Action scenario 1: Communications & timely, proactive conversations with Legislators, Presidents & others.

In his efforts to address what he perceives to be narrow or faulty perceptions of the realities shaping the university system’s state funding needs, or decisions about how to spend that money, Harold initiates conversations with key constituency groups. In each case, he seeks to uncover and correct these errors, thus creating a larger shared frame to support better collective decisions.

CONVERSATIONS WITH PRESIDENTS.

Harold pursues conversations with system college presidents with the aim of fostering greater appreciation of the critical nature of state funding, and the university system leadership's responsibility to keep the larger picture in mind when making local decisions about the request for, and use of, state funding. For example, consider the following two conversations he describes:

A question came up around in-state tuition and the need to be really careful not to raise tuition too much. At least two of the campuses said right away, "Well, we would much rather raise tuition to keep our quality up because we know from our surveys we lose more students to perceived higher-quality institutions than we lose students for price." That may be true. When you look at the clearinghouse data you might say, "Okay, we had two hundred applicants who ended up at Competitor College A instead of coming here. It's higher ranked, has perceived higher quality, so they left for quality. And we had one hundred students that didn't come here because they went to Competitor College B out of state, which is cheaper but lower ranked. So, more are leaving for the quality issue." Even if that were true, the part of that equation that then doesn't follow is how much would it cost to address that quality issue? How much would it cost to truly compete with Competitor College A on a quality issue? Oh, \$5 billion? We can't do that. How much would it cost to address that pricing issue with Competitor College B? Oh, \$10 million? That one's doable. I think there's been a lack of questioning in the past. It's been easy for the campuses to throw out, "Well, no, students leave for quality and so don't touch quality," as opposed to, "Well, wait a minute. Let's drill down on that a little deeper." (IDI2: 288)

I had this conversation with the president of LGU, even before I had the chancellor's hat on, when he was arguing for [LGU to be split off]...I said to [him] if you were to split off and we're all splitting off, and so now we've got four institutions fighting at the legislature for dollars. If I go in there and say, "Give me \$15 million, and I'll give free tuition to every STATE student," then I'm going to get that money. If you go in there and say, "I want another \$50 million, and I'm going to keep tuition frozen," then you're not going to get the money. I think there was partial acknowledgement that that was a point. (IDI1: 307)

In each of these examples Harold tries to help the presidents understand how their perspectives on what is desirable or feasible for their institutions lack attention to key aspects of their shared institutional reality, such as the finite nature of the slice of state resources

they share, and the way that existing financial constraints shape the feasibility of different strategies they might pursue to attract more students (and increase associated tuition and fee revenues) in a competitive market.

COMMUNICATING WITH LEGISLATORS.

Similarly, Harold uses both targeted and strategic communications with legislators to illuminate aspects of reality that are less visible to them. In doing so, he recognizes that his approach must account for both the nuances of the issues themselves, and challenges posed by the legislative process, which include not only shifting political dynamics, but also limitations such as time and access. The following quote hints at these different forms of situational complexity and shows Harold's understanding of how these variables interact.

The battle that we face is a complicated issue. Putting it in sound bite terms is not easy. There was an article today [reading news headline], "Pay up or the students get it." What they're saying is, that's what we're saying. Well, no that's not exactly what we're saying. But, in this editorial they're saying, "They should be finding other ways to cut costs and not sticking it to the students just because they don't get the money." We're already giving about a 50% tuition break to in-state students, and we're only getting 9% from the state already. It's among the lowest per capita funding of any state in the country. (IDI1: 65)

Both contributing to, and flowing from this situational complexity are the kinds of gaps in Legislators' knowledge discussed earlier in the challenges section. To address these gaps, Harold pursues a somewhat paradoxical communications strategy. On the one hand, he *simplifies and narrows* the message being sent, thus promoting clear understanding of the value that will be realized by the community through continued state support for the university. On the other hand, for Legislators who have the time and authority, he *elaborates and expands* the message to clarify the subtleties of resource allocation at the university system, as needed, to instill confidence in these Legislators about the university system's financial management decisions and practices.

The *simplifying* part of his strategy begins with working internally to align university system leadership around a unified message they want to deliver via formal budget process milestones (e.g., written budget request, legislative testimony). This internal process represents its own adaptive challenge in the context of presidents' fiefdom mentalities discussed earlier. He takes initiative to work through this challenge because he recognizes how important it is to have a unified message thanks, in part, to feedback he received from legislators in a previous budget cycle. Harold explains,

One of the things I really emphasized in the past biennium, which I am trying to take to a different level now, is simplifying the message. Previously our appropriations were cut almost literally in half. I think at *that* time the system really wasn't good about making the case for itself. I think there was too much complexity around how we operated in terms of the understanding that existed at the legislature and the public. We also had internal disagreements over the messaging with presidents and in different places about what should happen. That noise really undermined [the message]. The legislature had come back and told me, "If you guys don't even know what you want to be when you grow up, then why are we going to invest money in you?" So, we got better with our messaging last time. (IDI1:177)

I find for myself that all the time I'm refining the message and simplifying it. I'm getting it so I can do a smaller, shorter elevator speech and get a point across. Because for most legislators, that's all they have time for. (IDI2: 973)

The top quote in particular signals his receptivity to feedback received from legislators. In other parts of the interviews he describes how he not only takes such feedback seriously, but actively seeks it out from multiple sources including key players outside his own circle. Both quotes highlight how he continually adjusts his strategies to fit local conditions, drawing on his evolving understanding of these conditions and the effectiveness of his approach.

The *expanding* part of Harold's communication strategy takes place, for the most part, behind the scenes in informal conversations with strategically selected legislators. During these conversations Harold strives to "connect the dots" (IDI2:692) in order to (a) help these decision makers understand the complexities of issues surrounding the budget and

represented in a deliberately simplified way in the messages; (b) identify and address any misconceptions they hold, whether these rise out of legitimate gaps in communication or faulty assumptions grounded in historical misunderstandings or misconceptions; and (c) respond to any questions they have about the financial needs of the university system or the way that resources are allocated internally to ensure that the state's higher education needs are being met in the most efficient and effective way possible. Harold views these communications as critical for providing legislators with the information they need, or feel they need, to feel confident in their funding allocation decisions.

Harold's comments below describe some of the additional aspects of this part of his communications strategy:

[In these informal conversations with legislators] I can get a little bit more detailed around connecting those dots and saying, "Well, no we wouldn't go out of business even if we froze [tuition]. If you didn't give us any more money and we froze this year, we're not going to go out of business this year, but it's that long-term picture that's different. If we take money out of capital reserves now to pay for this freeze, we don't have it there later when we have to repair the roofs on these three buildings. At some point, if we keep doing that, we're going to come back and need you to bail us out"...So, yeah. There is an in-between. There is a connecting-the-dots part to that where I explain, "This is why your money is going to go so far with us. It's because we're managing things in such a fiscally sound way that we can put all those dollars directly towards the students." (IDI2: 681)

In terms of that more detailed message, it's really selective and really figuring out who has some influence, as well as who has the bandwidth to hear the message and put the pieces together. (IDI2: 812)

Of particular note in these excerpts is Harold's attention to issues of timing and placing. In the first excerpt he explains how he applies his understanding of system dynamics to help legislators understand the complex, time-delayed relationship between receipt of state funding and ability of the system to meet its financial requirements (e.g., "if we take money out of capital reserves now, to pay for this freeze, we don't have it there later when we have

to repair the roofs on these three buildings. At some point ...[we'll] need you to bail us out"). In other words, he not only recognizes, but also helps legislators understand that future sustainability of the system is linked to current funding decisions through a complex, time-delayed relationship. In the second excerpt, he explains how he strategically decides when, and with whom, to initiate these messages looking at who has the "influence," and the "bandwidth to hear the message and put the pieces together." Next I share a glimpse into a conversation Harold had with a particular legislator he deemed to have such influence, during the time period in which the Committee of Conference was in session.¹³

Harold had heard rumblings about Committee of Conference members being extremely upset about an email they had received from one of the system colleges, which they were interpreting as a sign of the system's disregard for the State's difficult financial position. Based on the level of distress he perceives, and the critical timing in which budget allocation decisions are being made by the very people who are reportedly most upset, Harold leverages his relationships with members of that committee and meets with them to clarify the misunderstanding (an email announcing a "brand new position" actually referred to filling an open position that was architected to have different reporting relationships). During one of these clarifying conversations, after resolving the confusion, he uses the opportunity to gain strategic information about the status of the budget appropriations discussion and, based on what he learns, reframes the reference point being used in these discussions. He recounts,

[Being in the conversation with the House Speaker] was an opportunity for me to give them some reason to put the brakes on at a higher number by pointing out to them that we're supposed to get \$n this year so that would have been flat for us. But the Governor rescinded \$3 million. That means, if

¹³ The Committee of Conference meets to determine the final budget that will be presented to the Governor for signature based on reconciliation of differences between budgets proposed by the Governor, the state House, and state Senate.

we were at \$n-3 million, you could certainly argue that this was flat funding from what we *actually* received. So that's a message we could manage on our end. We wouldn't be out there touting this big cut that we got if we were actually at \$n-3 million. That's where they ended up landing. So, giving them a reason they could go back to this segment of their constituency and say, "Look we did pull them back, we did compromise." And at the same time, give themselves and us a win of \$n-3 million. That it's flat funding with *actuals* for '15. (IDI2: 111)

Usually the term *flat funding* is used in reference to the idea of maintaining levels of funding that match those allocated by the legislature during the previous cycle (and signed by the Governor). Harold reframes the term flat funding to mean actual amount received (after the \$3 was rescinded by the Governor after the fact), thus identifying for the legislators a new option to consider that is more viable given the politics of the moment and more favorable to the university system than was likely to result from discussions using the original frame.

Action scenario 2: Illuminate & leverage value-alignment with Business Association.

Drilling down a bit on Harold's communications strategy discussed in the previous action scenario, and exploring how he develops content for the simplifying aspect of this strategy, I ask Harold how university system leadership decides which messages to focus on in a given budget cycle. His reply includes the following explanation:

Part of it is a gamble. In terms of, okay, what's the simple message that would resonate? We know there's no message that all the legislators will embrace because even if we say "If you give us another \$10 [million] we'll cut tuition in half," some legislators who don't believe in public higher education at all would say, "Why are we giving you \$10 million even?" So, we know we can't win over that group. It's trying to think about what can we also rally advocates around because we know in the state as well that if you can get people to make phone calls and to say, "Hey, this is a good idea," that it has an impact. We know particularly with this legislature that they've been very focused on business, which is why the Business Association was so important. So, we ended up going out with essentially two messages. One was a workforce message: that business wants us; business needs an educated workforce. Then that became, actually, the primary message that we wrapped others around. We are going to be able to freeze tuition. Why does the tuition freeze matter? Well, instead of talking about the impact it has on student lives and family lives. It's like, well, so we freeze tuition, we'll keep more students in STATE, we'll have more people to be part of that

workforce. So, in this case, we tied it almost *all* back to the workforce. So, getting the workforce to say, “Yeah, we support this, we think this is good” was critical to making that message have any credibility. (IDI2:770)

This comment highlights Harold’s understanding of the inherent uncertainties and power relationships characterizing the funding allocation process, as well as underscores how he seeks to navigate these dynamics, in part, by identifying demonstrable points of value alignment in the community, focusing in particular on those segments of the community that have influence with legislators (“what can we rally advocates around because we know in the state as well that if you can get people to make phone calls and to say, ‘Hey, this is a good idea,’ that it has an impact”; “we know particularly with this legislature that they’ve been very focused on business”). He attends to local, situational variables (“in the state”; “with this legislature”), and demonstrates understanding of the way that outcomes in the budget allocation process are shaped by political dynamics and power relationships.

Notably, his process for determining what messages the university system will communicate to state legislators starts with asking, “What’s the simple message that would resonate?” In other words, what can I do with state funding that matters to someone in the community that the legislators listen to (rather than what do I want to do with state funding based solely on internally defined criteria, and then how can I find a group that has power with the legislators and convince them to support state funding for that, which would reflect a less complex logic). This illustrates Harold’s tendency to see relationships as prior to the related parts, or as levers that can be used to deliberately shape those parts (similar to the way he uses the relationship between autonomy and oversight to shape the form and levels of autonomy and oversight needed in particular situations). Specifically, he researches the needs held by those parts of the community that are positioned to influence the funding discussions; identifies which of the university system’s larger set of values are best aligned

with the values held by that part of the community; and works with internal leadership to define university system funding priorities and messages in ways that highlight these points of value alignment.

Next I offer another glimpse into the way Harold approaches defining messages to the legislature. This glimpse also supports my interpretation that he sees a particular kind of relationship (value alignment) as a lever for (a) helping the parties to that relationship define and articulate their respective values, and (b) develop the capabilities of the parties holding those values (e.g., targeted segments of the community, the university system) to communicate those values in consistent ways, thus attracting funds that bring those values into realization. In an earlier interview, when elaborating on his view that the university system has a responsibility to ensure that the Governor and legislators understand what the university system is doing so they can make informed decisions about funding levels, he shares the following explanation of his process:

Part of [providing the Governor and legislators with information they need to make informed funding decisions] is [asking ourselves], “What’s the bumper sticker and elevator speech that we have to give to the legislature now for them to see that it makes sense for them to fund us.” Then we have the in-between, or we have the four institutions with their missions. So, it’s something that wraps those things together. As I look at the bumper sticker for us now, it has really been more about supporting the workforce needs, being focused on workforce areas. None of the privates focus on Science, Technology, Engineering, and Math (STEM) education, for example, to the extent that the university system colleges do. If you want to address the STEM workforce needs, you’re only getting that through the public system. And access and affordability, of course, are pieces of that message as well. (IDI1:1179)

In the quote above Harold asks a similar question to that in the prior quote. Here he asks what “bumper sticker” (compare to “simple message” in prior quote) do we need for the legislature to see that it “makes sense for them to fund us” (compare to “resonates” in prior quote). While there are likely a number of different possible bumper stickers he could

choose and a number of different priorities reflected in the four institutions' missions (or future missions factoring in how they might evolve), he deliberately selects the bumper sticker that best represents university system priorities (i.e. supporting system college STEM programs) that match existing needs in the community (i.e. workforce development, broadly defined) thus reflecting his prioritization of value alignment over any preexisting value hierarchy.

Once he identifies this point of alignment between the values held by the business community (workforce development) and the values held by the university system (meeting the higher education needs of the state which include workforce development such as through STEM education), Harold pursues a deliberate and sustained course of action aimed at helping the Business Association first, recognize this alignment of values and embrace public higher education as an important part of the solution to their workforce development needs; and second, be more vocal in articulating this relationship to legislators as a way of increasing legislative support for university funding. He describes this part of his strategy as follows:

I have a presentation I am going to be giving to Business Association in a couple of weeks where I'm trying to convince them to be a little more vocally supportive of the need for an educated workforce, and to support the public higher education system ...I'm going to have to really simplify some of the arguments and needs and can talk about why we present things in certain ways and get that support. I think we've been building higher levels of support than we've ever had in the past. We built the advocacy group across the campuses; that is helpful. But we're going to need to keep the pressure on. (IDI1: 119)

I had the opportunity to observe Harold's efforts in this area through a number of lenses. These include: observing Harold's presentation to the Business Association and testimony to the Senate Finance Committee, inquiring during interviews about this and other ways that he engaged the Business Association, and reviewing the evolving set of priority statements

published or communicated by this Association during the time period of the budget allocation process. These explorations yielded two findings of particular note.

First, as shown in Appendix Z, the language used by the Business Association to express its priorities in the area of workforce development became increasingly specific and increasingly aligned, over time, with the messages and language used by the university system in its funding request and other communications. Harold's conversations with me about his work with the Business Association indicate that this evolving message was shaped, in part, by his interactions with them. Specifically, the Business Association priorities published in January 2015 include a number of priorities in the area of workforce development that reflect that organization's general intent to support the kinds of programs that are consistent with the business community's specific needs in this area (e.g., technology career awareness, need-based scholarships, and education efforts aligned with the "specific skills needed by businesses"); however none of the language in this statement is explicitly aligned with the targeted priorities being communicated by the university system through the budget allocation process. This statement of priorities, while general, clearly indicates an alignment between the workforce development priorities of the business community and the specific educational outcomes the university system believes it can produce if adequately funded. The March 5th written testimony submitted by the Business Association to the House Finance Committee includes the following language "...we support adequate and appropriate funding for the University System and Community College System in the state's budget..." The May 5th testimony to the Senate Finance Committee includes the more specific language "...[we] support the state university system's biennial appropriations request for restoration of funding to a level that will adequately support the continuation of a tuition freeze." Thus, the second round of legislative testimony given by the Business Association aligns with the

university system's messaging not only in its intent, but also in its use of specific language defining what constitutes adequate support (e.g., "continuation of a tuition freeze"). Having observed this shift (based on my review of the three documents above) I asked Harold, "Did you have a part in crafting those?" He replied,

I did actually. I gave them some wording and I continued. I had another presentation after I did the presentation that you saw and just continued to say, "We really would appreciate having a very specific message." Then they asked for some language, so I gave them some language around what we were looking for. (IDI2: 879)

Thus his efforts to give visibility to this alignment extended beyond the value sphere and into the more concrete domain of language. Moreover, I saw Harold explicitly reference the Business Association's testimony in his own legislative testimony, to further reinforce this link to legislators (OBS:H4-2).

The second finding of interest from my explorations of Harold's activities with the Business Association arise from the timing of this meeting relative to another meeting I observed. Specifically, Harold and I left the Business Association meeting early to join another meeting that was in progress back at the system office. At this meeting, senior finance executives from across the university system along with the Board chair, Harold, and others were making final preparations for the university system's impending bond rating reviews. While the emphasis of Harold's presentation to the Business Association was on the need for more funding, the benefits that would accrue from such funding (as they aligned with the specific needs of the business community) and the levels of funding required to support the university system's ability to substantively and sustainably deliver against those expectations; the emphasis of the ratings review preparatory meeting was on highlighting the sound financial management practices in place, favorable performance against critical financial metrics, and otherwise instilling confidence in the ratings review organizations that

the university can reliably meet its current and anticipated financial obligations, despite uncertainties surrounding the state budget allocation request. In other words, he quickly moves between, in one meeting, explaining to business leaders why the university system's current financial situation isn't sufficient to meet the larger set of needs that exists in the community (which could be met through additional funding for programs that support workforce development) and in the next meeting, supporting system leadership in defending to ratings reviewers how fiscally sound their financial management practices and results are in the context of existing and planned programming. When I shared with Harold my observation of the seemingly opposite goals of these juxtaposed meetings (we need more money to sustainably meet the evolving needs of the community; we keep sufficient reserves and operating margins necessary to remain fiscally reliable lenders despite the uncertainties surrounding our revenue base), and asked, "How do you manage what to be transparent around [for different audiences]?" (paraphrase), he replied,

That's a really good question because my CFO here has said it before that we get penalized for managing ourselves too well. Part of the conversation that I've had more recently with some of the legislators as they've wanted to see why can't you freeze and don't you [have reserves] is [to] get a little bit more detailed around connecting those dots. (IDI2:679)

In a different part of the same interview I asked how he processes situations when people are not understanding the expansive vision of reality and connections between the parts that he brings to a particular situation he replies,

There's a difference between how you, one, package things and, two, justify things. I looked at how we're going to justify and defend what we do, both because I want to make sure that we can speak to legislators and the public about it, but also for my own mind, I want to make sure that as a state institution, we're true to our word. (IDI2:417)

In both quotes (although more explicitly in the second) he refers to having an awareness of both the larger reality or picture he is working from and uses to develop solutions with

integrity (“justify and defend”; “true to our word”; “*connecting* the dots”) and the more narrow slice of that reality that he presents to different audiences (“package”; “speak to legislators and the public”; “connecting the *dots*”) in the process of advancing specific strategies grounded in his awareness of that larger reality. Thus, he navigates particular situations by accounting for the specific realities and objectives of the people in them (a part) as a way of operating on the larger reality (often a larger part) he sees, which incorporates, and extends beyond the perspectives and understanding of people he is working with in a particular situation.

Looking at the larger purposes Harold holds while pursuing state funding increases, and the way he approaches his work in this and other areas (as illuminated by this and other action scenarios) his approach could be interpreted as reflecting the use of dialectical thinking. With this form of thinking, the objective of advancing shared goals is situated in a way of thinking that includes seeing development of the whole as an ongoing process that can be shaped by evolving the parts, and their relationships, in ways that are oriented toward catalyzing transformation of the whole to a new level of effectiveness.

In this action scenario, Harold seeks to leverage the relationship between the current form of existing parts (value alignment) to influence actions in the community (Business Association levels of participation in the process and consistency of their message with that of the university system) that shift conditions in the environment (increased state funding to the university system) in ways that allow the different parts of that relationship to evolve (the university system applies funding to identified priorities and thus becomes better at realizing them; the better programs offered with funding help the business community grow their capabilities to further contribute to meeting the needs of the wider community), thus promoting wider realization of the needs of the community (assuming that realization of the

value of workforce development will catalyze other changes in the community aimed at other values.) Thus, he not only considers the existing form of the parts and the existing form of the relationship, he also situates his awareness of this current state of reality in a larger frame that includes anticipating new forms that these parts, their relationship, and the system as a whole might take, if certain actions are pursued.

If all of this change is seen as happening within a single plane (the new form is not qualitatively better; not more adaptive for the community as a whole) then it would simply reflect a less complex form of systems thinking. Moreover, if a particular predetermined vision of the future were being pursued through this approach, it would also represent a less complex form of systems thinking. I believe that Harold's insistence that "incremental change is not enough" to promote sustained mission fulfillment in today's environment, and that "transformative educational experiences" must continue to be part of the public higher education landscape, reflect his situation of change activities in a larger change trajectory that is normatively ordered and vividly imagined but not rigidly defined. Harold's recognition of the uncertainties in the process (e.g., "part of it is a gamble") and his willingness to not only shape others actions and messages to align with his, but also the reverse (e.g., choosing the language "workforce development") suggests this is not the case. Here, we see how Harold uses dialectical thinking aimed at transforming the system as a whole in ways that reflect evolution of the forms into some future, yet unknown configuration (forms and relationship) that can only be fully perceived and realized once the system as a whole matures.

Action scenario 3: Partnering with community colleges to offer a new Bachelor's in Nursing (BSN).

In this action scenario, I share an account of how Harold both models the kind of bigger picture thinking that he finds missing among many leaders in the system, and

demonstrates how he responds in a particular situation when he encounters overly narrow thinking by others. The story begins in Harold's own words:

Less than a year ago we had a conversation...[with leadership of the community college system who] said, "We just want to let you know we're offering a four-year bachelor program in nursing." I said, "Well, thanks for letting us know, but we have a different idea." This has been a tension-filled relationship partly because of what is essentially a loophole. When the community college system separated from being a state agency, being more like us (a 501c3) the legislation that established it wasn't specific about what degrees these colleges could offer or not. It didn't say they could only offer associate's degrees, and I think that was an oversight. I talked to people at the time including the then Governor, who said it was never intended for community colleges to do anything more than associate's degrees, but because it doesn't say explicitly, they're interpreting that to mean that "Oh we can do bachelor's if we want." [Interviewer: But didn't you do the same thing at College A?] I did. The part that made that work was I didn't have anybody there saying that that's not what we intended. (IDI1:1264)

Rather than simply say, "No you can't [develop a BSN program]...we instead said, "Well, what are you trying to accomplish? If the problem is that we don't have enough nursing BSNs out there, we have four colleges. We can figure out how we can build capacity. And if the problem is that you're afraid you are not going to get students into the associate's degrees anymore because the hospitals all want BSNs, then let's partner around a pathway." We came up with the idea of a pathway, where we would have three years at the community college, one year with either College A or College B, and they would get their BSN and that would actually equalize tuition...It was all done within a year and it took away that need. But that underlying "we're going to hold you captive" kind of thing has continued there. So, it's been, "Okay, what are the next ones we're going to deal with?" If there's a real need there for the state, and we can do this together, we will partner. (IDI1: 1296)

In this situation, the state community college system identifies a need in the community that is not being met: the need for a Bachelor of Science in Nursing (BSN). Its response is to develop a solution internally that is not only located outside the authority of that system's charter documents, a move that Harold does not interpret as a problem in itself but, more importantly in Harold's view, fails to consider available infrastructure and capabilities across the state public higher education system, or demonstrate commitment to the value of efficiency which can drive levels of support for external funding. Harold's way to a better

solution begins with the question, “Well, what are we trying to accomplish?” which orients the conversation toward working together to find the best solution for meeting the unmet need, rather than toward discussing the pros and cons of the particular solution proposed by the community college or some alternative he has already architected.

During the conversation, Harold and his Board chair uncover the various assumptions that the community college is working with (but had failed to test) and offers alternatives that meet the concerns implicit in those assumptions while keeping the larger goals of efficiency and innovation in mind. For example, he explains how at one point in the meeting

we said, “Okay, you have all this nursing equipment invested. Great. We have a lot invested in bachelor’s faculty who can teach that. So you do all those nursing courses for the first three years. We’ll do the bachelor’s top off piece. They’ll get their degree.” Then the argument was, “But we can do it cheaper [for the students].” I said, “No, we’ll do it at the community college tuition rate, so, it’ll be the same price.” There was no place else left to argue. The last concern we got [from them] was, “But there is no way you can do this within a year.” We said, “We will do it within a year.” I could promise that because I was wearing two hats at the time and I knew at College A, [I could say], “Guess what, we’ve got a nursing bachelor’s we’re going to put together.” And we did. The program now exists. (IDI1:1306)

Thus, the story ends with implementation of an innovative new “pathway” that not only meets the unmet need in the community in the form of a solution that is affordable for students and brings revenue to the system(s) (the community college’s initial priorities), but also leverages existing strengths and infrastructure of the public higher education system as a whole and avoids creating unnecessary costs and duplication within that larger system.

Attending to these latter issues is important for shaping legislators’ and the public’s views about how much funding is needed by the system and how responsibly the allocated state funding is being managed.

An additional twist in the story speaks more directly to this connection between efficiencies realized by this solution and attitudes of legislators. When conversations above were taking place, a legislator with ties to the community college system introduced a bill to give the community colleges the formal power to offer bachelor's degrees. Harold continues,

We clearly didn't want the bill to pass...so two people testified against it: myself and one of our deans from LGU. We didn't want to...look like we're really beating them up with all of our presidents there. We got the Governor to write testimony that said this was never the intention to have four-year community colleges. I got one of our trustees who is CEO of one of the largest companies in STATE to testify saying, "If you're trying to save money, this is the worst idea possible because you've got demographics going down; you already have Neighboring State collapsing because they have too much duplication. We don't need seven more four-year colleges." We went and testified. The sponsor of the bill testified. The community college chancellor testified...we just hit it hard without trying to look like we were overdoing it. It's one of the bigger successes we've had with the legislature. We got a vote of nineteen to zero against it...We stressed, "There's no other state that has stronger partnerships with the community college system, and that wasn't true five years ago. That's very recent that we've been working with them. Why have us competing instead of partnering?" That was the essence of my argument. (IDI1:1328)

The various testimonies orchestrated by Harold to help defeat the bill show that his reasoning has been tested with, and is shared by key others in the community. For example, the Governor confirms that the community college system was not intended to offer bachelor degrees; and a member of the business community speaks to concerns about inefficiency and duplication. (As a side note, Harold uses a similar strategy in the budget allocation testimony I observe, bringing a system college president and parent and alumni association member to speak for themselves about the value and financial needs of the university system). Moreover, Harold's approach to defeating the bill in this action scenario includes intentionality around preserving, developing, and giving visibility to his efforts to foster partnerships and collaboration across the system (e.g., "we didn't want to...look like we're really beating them up"; "there's no other state that has stronger partnerships with the

community college system”; and “why have us competing instead of partnering”). Thus Harold leverages introduction of the bill as an opportunity to demonstrate his commitment to values shared by the larger community and foster relationships with key others whose collaborative energies he seeks to develop and engage.

This story also points to another important connection between the way Harold understands the challenges outlined above and the decisions he makes about how to act on the ground. Specifically, it models his attempts to engage in, and invite from others, the kinds of innovative thinking that he finds to be lacking, for the most part, in the “traditional” higher education sector. For example, he comments in the quotes presented at the end of Adaptive Challenge 1 in Line of Work #1: “The circle isn’t moving fast enough”; “One of our biggest problems as an industry overall in higher education is that kind of echo chamber”; and “We’re much more fragmented than the public perception.” Also, throughout the interviews he insists that part of the solution involves innovating at faster pace. In one of his references to this assumption he asserts,

I feel pretty committed to the belief that we need to change at a pace that's faster than the previous incremental kind of pace that most of higher education has followed. It's gone through many changes before, but I really think this is a different time. (IDI2:27)

Harold’s commitment to thinking in innovative ways is evident in the story above (two quotes prior) but also in his track record of innovation in the online and distance learning space and the various partnerships he has developed or energized. These include, among others, a “dual-admissions” degree pathway, in which students who are admitted to state community colleges are, at the same time, conditionally admitted to one or more state university system colleges as long as they meet certain predefined standards set by these system colleges (e.g., completion of community college work with a certain GPA). These efforts of his involve testing assumptions, developing partnerships, or otherwise aligning

goals and actions of the part of the system that one's own organization identifies with most closely, and other parts of multiple, larger systems in which that part is embedded. In the case above, it involves fostering partnerships between the university system part and the community college part of the larger public higher education system in the state, and orienting the activities of both parts toward the goals of efficiency, synergy, and quality (although the reference to quality is more implicit in the stories above, it is discussed more explicitly by Harold elsewhere) all of which represent values state legislators expect him to uphold.

In this story, I additionally see Harold applying complex thinking to understand and approach his work in the following ways:

- Keeps the needs and values of the larger whole in mind while working collaboratively with the part to develop a solution that best addresses the collective needs of both.
- Applies situational understanding to evaluate the merits of a solution with reference to the particular environment and circumstances. For example, he finds creation of a graduate degree which falls outside *College A's* existing charter to be appropriate because the capability being developed did not already exist in the larger system and he confirmed with the Governor and others that the charter ambiguity represented an oversight not an intended constraint; while he finds creation of a bachelor's degree capability which falls outside the *Community College System's* existing charter to be problematic because developing that capability within that institution creates duplication and attendant extra costs in the larger state system, and overlooks existing strengths in that larger system, which could support development of a joint program.

- Sees and leverages the opportunity presented by the introduction of the Bill aimed at authorizing a four-year degree capability in the community college system to (a) demonstrate to legislators his commitment to meeting the larger needs of the state in a way that embraces the value of efficiency, and (b) promote visibility and gain support for a more collaborative approach to meeting the state's needs.
- Illustrates how he translates his attunement to macro-trends and environmental conditions into local actions aimed at advancing the needs of the community. Specifically, he acts locally to encourage and support the kinds of innovation he feels are missing from traditional institutions within higher education as a means of better matching the pace of innovation in the larger higher education field, which in his mind is a necessary step toward preventing elimination by substitution of affordable transformative education experiences within the state.
- Demonstrates the use of external reference points (getting out of the “echo chamber”) in the way he approaches development of the BSN partnership (e.g., implicitly critiques the community colleges for not testing assumptions externally) and in the way he evaluates and orchestrates testimony against the bill proposing a four-year capability (e.g., looks to the State and businesses to validate his assumptions about efficiency and charter intent).
- Works to address fragmentation in state public higher education by shifting mindsets towards and building capacities around more collaborative ways of working.

Action scenario 4: Foundation strategy lab and associated conversations.

This action scenario looks at Harold's efforts to ensure that his state (the part) has a seat at the table where important discussions are taking place that have potential to shape

state higher education funding policies across the US (the whole). Harold believes that key participants in these discussions, while holding intentions that are generally aligned with his, are failing to attend to some of the larger realities characterizing public higher education, especially local variations in state funding policy. He believes, as I described in Adaptive Challenge 2 earlier, that failure to correct this value-reality gap could lead to unintended consequences for the population served by public higher education, especially the most vulnerable segments.

To help address this gap, Harold takes advantage of the opportunity become a “strategy lab” for Foundation A, which (similar to the Business Association in Action Scenario 2) he believes is an organization with “a strong voice” that is committed, in this case, to shaping education funding policies in ways that Harold believes could have dire implications for his state and eventually the broader field. Drawing on the data, I highlight below how Harold both applauds Foundation A’s efforts to think in innovative ways about what it means to “meet the higher education needs of the state” and takes deliberate steps to educate those who support this agenda to some of the aspects of reality that must be more carefully considered in the process of developing and implementing programs and policies aimed at achieving this goal. The first two excerpts below highlight Harold’s appreciation of the goals of Foundation A, underscoring the value he sees in their approach.

Our adopting a 65% college attainment goal is, I think, a generally positive thing for the state...It’s much easier to say that we have a goal to have 65% of our population college educated than it is to say we’d like to have more of our population college educated. Have something that distills it into a simpler, more direct message is good. I think that’s where we’re aligned pretty well. (IDI3:446)

I think [Foundation A leaders are] focused on the right thing of higher attainment rates, because I think they’ve learned it’s not just getting people to college but actually getting them out. (IDI3:361)

These comments signal Harold's receptivity to innovative thinking in the education funding space, and his willingness to engage actively with people who hold different views (as explained more below) about which (combination of) innovations will be most effective. The next three excerpts describe how he approaches getting a seat at the table where conversations about funding policy are being shaped and the aspects of reality he illuminates once there:

[I'm] trying to find the platforms where the conversations are happening, particularly where they're originating, so that I can try to maybe put some of these seeds in place that help, I think, give a different understanding than maybe what they have from their perch and their perspective. (IDI3:4223)

I purposely helped push us to be a strategy lab with Foundation A, which is different from a strategy state, so I can have some of that access at least with Foundation A representatives. I think they've starting to listen, but it's been an uphill push because they came believing that we should really push to get performance funding in the state. What I've had to educate them around is the fact that this state doesn't have any dollars for performance funding. It's only going to come out of the small pool that's already there, which all goes to [tuition]. If their outcome is that they want to have more state systems striving to have higher completion rates, we're the second highest public completion rate in the nation, with the lowest student loan default rate. The only thing they can do is potentially mess that up. (IDI3: 382)

When we applied for the strategy lab [at Foundation A] one of the questions was, "What is your state doing around performance funding?" I actually wrote that section of the [proposal]. It was myself, and the chancellor of the community college system, and the commissioner for higher education. We put this thing together. I wrote that particular section myself because I wanted to make clear that we're different. What I tied it to was, because we're so underfunded, we already have a performance funding mechanism and that's enrollments. We are already incented to keep students continuing until graduation because without their tuition we could lose. Our funding is the students. We get less than 10% from the state. I think that was so different for them to see that they approved our big part of the strategy lab. I've continued to try to push that thinking because I know they still have the temptation of just mailing things to our legislators, "Here's the performance funding silver bullet." My concern about that is we have four hundred legislators. Right now the majority of them want to fund us less. Putting in their hands a performance-funding model will just be a way to find excuses not to give us money, as opposed to something that gives us more money. It's very counterintuitive. (IDI3: 402)

Notice in the first quote above that Harold deliberately seeks out “platforms where the conversations are happening” exhibiting sensitivity to the timing and placing of his efforts to shape the development of this trend. Then, in the second quote above he “pushes to be a strategy lab...which is different from a strategy state, so I can have some of that access at least with Foundation A representatives.” This lab designation emphasizes the mutual learning orientation of the partnership, provides Harold with “some of that access...with Foundation representatives” he seeks, and legitimizes his efforts to highlight specific local variable that need to be considered (“this state doesn’t have any dollars for performance funding. It’s only going to come out of the small pool that’s already there. And it all goes to [tuition]”) as well as the specific unintended consequences that could result if these factors are not considered (“we’re the second highest public completion rate in the nation, with the lowest student loan default rate. The only thing they can do [by implementing new constraints on funding] is potentially mess that up.”)

In the third quote above, he underscores how he intentionally takes up the work of writing the performance-funding section of the strategy lab proposal so that he can reframe how people are thinking about what performance-funding means. He explains, “Because we’re so underfunded, we already have a performance funding mechanism and that’s enrollments. We are already incented to keep students continuing until graduation because without their tuition we could lose”). Notably, he mentions in the third quote that the proposal is written by “myself, the chancellor of the community college system, and the commissioner for higher education.” Here, again, he demonstrates his commitment to working collaboratively with other leaders in the state higher education system to align not only understanding, but also actions, across different parts of the system.

The comment below highlights yet another aspect of reality that Harold feels needs greater attention: the definitions and assumptions built into the attainment strategy.

We are looking at adopting a 65% attainment rate here in the state, which, as far as I'm concerned, may be great, may not be. It depends on how you break that 65% down. What is it exactly? Is it that we're going to make sure 65% of the population has some sort of a direct assessment certificate and we met the criteria, or are we going to say we need 54% to have a bachelor's level education in sciences, and we need etc? Are we really going to be looking at what that means for needs? Or is it just going to be another check off, okay, we hit the number? (IDI3:82)

Confirming Harold's active engagement with this educative approach, I observe him planting seeds about these concerns and otherwise sharing updates about the university system's involvement in this effort in a Board meeting (OBS: H6-15), a Board Educational Excellence Committee meeting (OBS:H5-7) and a meeting of the Academic Executive Council, which includes the chancellor plus the four system college provosts (OBS: H3-12). In two of these meeting he speaks briefly about the need to carefully examine the assumptions reflected in the Foundation A agenda and to think critically about the best way to roll it out, support it, and invest in it. In a different two of these meetings he points out to system leaders that the idea of formalizing a degree attainment goal was originally taken up by the community college system as its own goal, and then shifted to become a broader conversation when leaders realized that the target attainment rate being discussed was based on research defining state-wide attainment targets (since the community college system is only one part of the state higher education system, it was neither appropriate nor feasible for them to embrace this target in isolation). Nonetheless, he acknowledges that their commitment to pursuing this strategy sparked larger, statewide discussions of the approach, which Harold sees as potentially a good thing, if approached with thoughtfulness. It's not clear from my notes whether this move toward formally adopting a statewide attainment goal is directly connected to the strategy lab initiative discussed above. However, Harold's

active engagement in those conversations (whether linked or not) illustrate his deliberate efforts to shape both how they unfold, how they are taken up by university system leaders, and how they are communicated.

In this story, Harold sees how key players in the industry, who have both access to and influence with state legislators, are working to shape education funding policies in ways that express laudable goals but incorporate strategies lacking attention to: (a) variations in state higher education funding policy, (b) unintended consequences that are likely to result from boilerplate implementation of their performance-funding strategy, and (c) ambiguities surrounding degree attainment goals and definitions. Harold's recognition of the first of these reality gaps reflects his high attunement to situational variables and commitment to developing context-relevant solutions. His emphasis on unintended consequences reflects his application of systems-thinking to anticipate how different dynamics in the system will unfold and interact over time to produce outcomes that are not directly or obviously related to the inputs for, especially when the system is being examined through an overly narrow or rigid set of assumptions. Harold's plea to refine the language and definitions surrounding performance-funding strategies and formal attainment goals emphasizes his awareness of the constructed nature of reality and the need to create shared frames of understanding to promote more effective collective action.

Chapter Summary

As a reorienting point for the reader, I offer Table 14 below, which outlines the scope of detailed analysis presented in this chapter to be summarized immediately following this table.

Table 14. Scope of Analysis by Entry Point for Harold’s Case.

Entry Point	Scope of Analysis
<i>Major Finding</i>	Working within & across multiple levels of the system, in an effort to promote efficiencies, synergies, & sustainability, Harold continually encounters different forms of <i>part-whole tensions</i> which he understands as multiple, embedded, value-reality gaps & approaches as leverage points for amplifying collaboration toward greater alignment of the parts in service of transformation of whole.
<i>Lines of Work</i>	DOMAIN: STRATEGIC BUDGETING • Foster more strategic budgeting practices. • Secure adequate funding now and later.
<i>Key Strategies</i>	• Dynamically balance autonomy & oversight. • Create shared frames & illuminate larger realities.
<i>Adaptive Challenges</i>	PART-WHOLE TENSIONS • Presidents’ “fiefdom” mentalities thwart fuller embrace of system governance responsibilities and hinder collaborative efforts. • Fragmentation of Trustee loyalties and fluctuations in Board capacity block wider engagement in adaptive work. • Key constituencies hold narrow or untested perceptions of the realities facing the university system, thwarting trust and collaboration. • Key constituencies uncritically view sector innovations as “silver bullet” solutions.
<i>Action Scenarios</i>	• Budget Parameters. • Timely Reframing Conversations. • Business Association Alliance. • Community College Partnership(s). • Industry Foundation Partnership.

In this case, we see Harold engaged in wide-scoping efforts to progress two lines of adaptive work within the strategic budgeting domain (see Focal Work Domain). These include: (1) working with system college presidents and university system trustees to foster more strategic budgeting practices that keep college-level budgeting activities aligned with system-level funding priorities, and evolve system-level funding priorities in ways that acknowledge shifting local and larger needs and conditions (see Line of Work #1); and

(2) partnering with a range of sector players to shape collective understanding and actions in ways that help the university system secure adequate funding now and later, in a context of rising concern with the costs of higher education and fierce competition for limited state and sector funds (see Line of Work #2).

We also see how he pursues these lines of work using dynamic, context-attuned strategies informed by an awareness of the constructed nature of reality and dialectical structures of thinking. Specifically, we first see how he engages the Board and system college presidents in “figuring out” together how to best promote a dynamic balance between autonomy and oversight, a strategy that is informed by the particular governance structure in place and Harold’s understanding of the conditions required to best harness the potential of that structure to promote system-wide efficiencies, synergies, and sustained mission fulfillment (see Line of Work #1, Key Strategy). Second, we see how he works with leaders of different parts of the system (e.g., system college presidents, university system leaders, community college system leaders, state legislators, sector foundation leaders) to create shared frames that incorporate more dimensions of reality, including points of value alignment, key situational variations, hidden process complexities, and new possibilities for action (see Line of Work #2, Key Strategy).

In addition, we see how, in the process of applying these strategies to pursue the two lines of work examined in this chapter, Harold continually encounters different forms of part-whole tensions, which he describes as situations in which leaders of different parts of the system embrace and act upon values, goals, strategies, or situational understanding that reflect overly narrow, or untested constructions of reality and fail to account for important dimensions such as: local variations, larger situational frames, issue interdependencies, and the way variables interact over longer periods of time. While a less complex thinking leader

might interpret these tensions as value-conflicts, Harold interprets them as different forms of value-reality gaps (see Narrative Description of Major Finding).

For example, Harold believes that system college presidents' tight grip on the value of autonomy, which he refers to as their "fiefdom mentality," is problematic not because it opposes the Board's desire to provide oversight, but because it fails to acknowledge the interdependent relationship he sees between the values of autonomy and oversight, and to honor the full scope of presidents' responsibility under the current governance structure (See Line of Work #1, Adaptive Challenge 1). Similarly, he believes that Board fragmentation is problematic not because it highlights the vast diversity of interests held by different constituencies represented by the Board (a reality that is likely to always exist and, in his mind, always should), but because individual Board members are over-identified with the values held by specific constituencies (see Line of Work #1, Adaptive Challenge 2). In addition, we see him interpreting pushback from presidents and legislators as instances of narrow or untested perceptions of the university system's financial reality or processes (see Line of Work #2, Adaptive Challenge 1). Finally, we see him interpreting as problematic the way that certain industry leaders uncritically adopt particular solutions to industry-wide problems as if they were "silver bullet solutions" to the entire problem (see Line of Work #2, Adaptive Challenge 2).

Notably, we see Harold carrying these larger aims and diagnostic assessments into his day-to-day decisions and actions, using them to orient and shape his on-the-ground efforts to engage the community in its adaptive work. For example, in the first action scenario we see him work with the Board to institutionalize a set of budget parameters that serve as conditionally activated levers for calibrating levels of autonomy and oversight. We also see him leverage his knowledge of existing value priorities to gain support for the

parameters, for example by injecting transparency into the university system budgeting process. In addition, we see him identifying opportune moments when the time is ripe to enlist resistant leaders in joining him in critically evaluating parameters against shared realities, and adjusting them to provide more evidence-based and sustainable guides for future budgeting practices (see Line of Work #1, Action Scenario).

We also see how, as he works with leaders in different parts of the system, he continually adjusts his local goals and strategies to honor and advance the needs and priorities expressed by those leaders, while helping to situate those needs and priorities in larger frames of reference. For example, we see how he simultaneously pursues simplifying and complexifying communications strategies, to help state and university system leaders understand the key situational factors that must be considered when interpreting the needs and actions of the university system and its colleges (see Line of Work #2, Action Scenario 1). We also see how he creates alliances and partnerships with leaders at multiple levels of the system, each time working with those leaders to (1) better understand their local needs and assumptions, (2) illuminate a broader set of realities shaping the issues under discussion, and (3) engage them in working more collaboratively to develop new action options that attend to important relationships between these local and larger needs (see Line of Work #1, Action Scenarios 2-4).

Looking across the diagnostic and engaging activities explored in this chapter, we see how Harold continually moves between, on the one hand, examining local system dynamics, including the needs, priorities, and conditions shaping the goals and behaviors of leaders of different parts of the state higher education system; and, on the other hand, attending to larger system dynamics, including the aims reflected in the two lines of work examined, which point to values and views of thriving that are widely shared within the community and

must, Harold believes, be attended to as part of the process of developing effective and sustainable strategies for addressing local needs. In other words, expressing an expansive and multicentered view of the adaptive work, he continually relocates this work at the center of different parts of the community, while always drawing attention to connections between those lines of work and larger ones, understanding that these distributed and collective activities are mutually constitutive, mutually informing, and, thus, represent mutual levers for transformative change (see also Chapter 7).

Offering a different vantage point on how the stories in this case illustrate how Harold uses complex thinking to understand and approach his work, Table 15 below draws examples from across the case to provide a snapshot of how Harold uses some of the specific forms of complex thinking defined in the literature. This table should not be considered a comprehensive review of all forms of complex thinking used by Harold, nor mistaken to suggest a linear relationship between the exercise of specific forms of complex thinking and specific actions in the world. Rather, it is provided to direct readers' attention to different sections of the case they may want to revisit to examine how Harold's uses of these different forms of complex thinking contribute to the larger set of dynamics shaping Harold's understanding, decisions, and actions, as discussed in the case.

Table 15. Sampling of Case Elements Illustrating How Harold Uses Different Forms of Complex Thinking That Scholars Have Associated With Tier-Three Levels of Thinking Complexity.

Form of Complex Thinking	Harold's Uses in Adaptive Leadership Practice
<i>Dialectical thinking</i> Basseches, 1984; Kegan, 1982	• Sees part-whole tensions as relationships between mutually constitutive, dynamically formed elements, not conflicts between preformed parts; seeks dynamic balance. • When partnering and collaborating, does not view either party's entering form, goals, or strategies as fixed; sees as transformable through collaboration (e.g. working with the business association to align and evolve both messages ("what's the bumper sticker?")) • Pursues multicentered goals, using movement between them to inform understanding of how they might be aligned or reformed to accomplish more of both, thus transforming the whole (e.g., dual admissions pathway) • Situates autonomy-oversight dynamic in larger change process aimed at fulfilling meta-formal criteria used to evaluate change ("incremental is not enough").
<i>Nonlinear thinking</i> Rooke & Torbert, 2005	• Sees presence of "critical mass" of Board members holding more strategic perspectives as threshold beyond which different kinds of work (not just more of the same kind of work) can be tackled. • Draws attention to "unintended consequences" that he perceives based on running scenarios that incorporate not just linear cause-effect dynamics, but more complex systems dynamics that account for interdependencies and indirect effects over time.
<i>Long time horizon</i> Berger, 2012; Torbert, 2004	• Sees process of holding university system feet to the fire in order to pressure it to find efficiencies, to be unsustainable over time (e.g. "there comes a tipping point"). This also reflects nonlinear thinking. • Institutionalizes multi-year financial planning models and processes. • Emphasizes need to use multi-year timeline when evaluating effectiveness of new governance structure ("This is all new enough where it hasn't yet fully played out; it hasn't yet fully proven its value")
<i>Use of external reference points</i> Kegan & Lahey, 2016	• Focuses community college leaders on the value of promoting efficiencies at the state level, a goal that exists outside of their respective organizations (if seen as self-contained systems), yet which binds them in shared purpose at the level of mission. • Entreats sector leaders to start looking "outside their own circles" to evaluate progress, equating the current situation to operating in an "echo chamber"; asserts, "the pace of change is faster than what we normally see...that circle isn't moving fast enough" • When presidents' denial of reality manifests in budgets that fail to acknowledge enrollment shortfalls, Harold uses deliberate irony to gain support for a "stress test" in which different enrollment assumptions are played out over time. He hires a consultant to conduct the test and uses results to engage Trustees in needed adaptive work.
<i>Paradoxical thinking</i> Kegan, 1994; Torbert, 2004	• Pursues communications strategy that is simultaneously simplifying and complexifying. Sees that both are needed; resolves paradox by pursuing conditional strategy in which different approaches are triggered by different situational factors. • Believes both more autonomy & more oversight are needed for effective governance; Resolves paradox by situating the polarity in dialectical structures of thinking. • Acts in ways that others call "counterintuitive." Understands that actions producing certain effects in the short term can produce the opposite effect over time or via interactions with other system elements. Also nonlinear thinking/long time horizon.

Chapter 5.
Portrait of Janine Practicing Adaptive Leadership on the Ground

“nothing is irrevocable”
—Janine (SOI:101)

“not just listening but *really* listening”
—Janine (IDI1:73)

“The goal is not to kill bad things but to elevate good things,
which also will kill bad things.”
—Janine (IDI1: 788)

The question is ‘what's missing from that?’
—Janine (IDI1:164)

“How do you embrace it without crushing it”
—Janine (IDI1: 431)

“How can the institution I’m in be a
point of intervention for improvement”
--Janine (IDI1:94)

Stage Setting

Introducing Janine *at work.*

As I arrive on campus in the winter of 2015 to meet Janine for the first time I am struck by the natural beauty of the snow-blanketed campus, nestled amidst hills and wooded groves, and peppered with an eclectic mix of traditional and contemporary buildings. Unsure how to interpret this architectural embodiment of the idiosyncratic tied together by an invisible thread of felt meaning, I rest in its beauty and proceed. The bluster and chaos of the recent storm, still evident in the mud-splashed exterior of my car, hangs in the air like a healthy flush in the skin that persists after a good workout. And yet, I sense also a hidden potential. Of course, my own hopes that Janine will agree to move forward with my research are vividly present. But also, I'm aware that the students are away fulfilling their annual work internship requirements, and the charged stillness in the air is like the energy before the storm of their bustling return for spring semester. Or is it the decades of coiled up energy generated through students' required, early forays into the chaos of the work world? Little do I realize at the time that these inherent contradictions, the tying together of differences via shared, yet-to-be articulated threads of meaning, and blending of past, present, and future, mirror some of the characteristics I will ultimately observe in the way Janine understands and approaches her work. A foreshadowing of the many forms of mirroring I will encounter as I observe her artful practice of adaptive leadership.

Janine pursues her adaptive work from the vantage point of president of this small, nationally recognized, regionally accredited liberal arts college. Founded on the principles of progressive education, and favorably ranked among its nontraditional and liberal arts peers, the college offers bachelor's, master's, and post baccalaureate programs. It serves a combined graduate and undergraduate student body of nearly one thousand, with most of

these full-time students pursuing a Bachelor of Arts degree, and most of this group residing on campus. More than a hundred full- and part-time teacher-practitioner faculty serve as mentors and guides for students as they develop and pursue highly individualized, self-directed courses of study drawing on curricular options that span a wide spectrum of liberal arts disciplines. In addition, students are required to fulfill an annual seven-week fieldwork requirement by securing and completing paid- or unpaid- work in an area related to their self-defined arc of study. The college houses several major centers of research and social intervention and maintains a full infrastructure of programs and services designed to support a thriving residential campus (e.g., residential facilities, dining and recreation centers, sports and fitness facilities, health services, career services, library and academic services, etc.). In addition, the college is currently pursuing partnerships with a number of external organizations, seeking to further expand its curricular flexibility, just one of its many strategies for differentiating itself in an increasingly competitive higher education market.

Governance of the college is provided by a twenty-two-member Board of Trustees, on which Janine serves in an ex-officio capacity. Most of the trustees currently serving on the Board have some personal connection to the college (e.g., alumni, parent). As president, Janine is responsible for overall administration of the college. She heads up a leadership team of approximately a dozen senior administrators who oversee the major academic and nonacademic functions of the college, manage large internal staffs who carry out these functions, and work collaboratively to support each other in their roles. In addition to working directly with her senior staff, Janine serves on a number of Board and non-Board committees, the latter comprised of various blends of senior staff and peer-elected faculty, and many of which she recently reconfigured. She runs monthly faculty meetings, provides input to annual faculty performance and salary review processes, and provides leadership to

support new faculty searches. She also plays an active role in building and maintaining relationships with key external constituencies including alumni, leaders and other members of the local community, as well as donors and potential donors. Janine makes a deliberate point of keeping an open door policy and, thus, makes herself available, as needed or requested, to meet with faculty, staff, and students.

Focal work domain: Institutional development.

During the first in-depth interview, Janine and I discuss the various adaptive changes she is trying to bring about. At the core of many of these changes is a fundamental belief she holds about the relationship between people and institutions. She articulates it as follows,

Not to overdo the matrix analogy, but there is an extent to which I think the vast majority of us go through life feeling like things are put upon us or the structures that are there - they're just there. But they're created by humans...and so it takes humans to undo it, or change it, or shift it, or reinforce it if it's the right thing. But I think there is a sense of kind of flailing around; people don't know how to do that (IDI1:535).

Many of the changes I see Janine working on are related to this idea, this notion that people today face the adaptive challenge of engaging in the learning necessary to alter their institutions in ways that promote more widespread thriving among members of our human society (which includes recognizing that they have the power to do so). In some cases, the adaptive work I see her doing represents efforts to engage the College community in reflecting on the institution of College, and deciding together how it can and must be evolved to promote a flourishing College community. In other cases, her adaptive work involves efforts to impart to staff and students, in ways that are aligned with the educational philosophy of the college, how to disrupt their own and others reified views of the existing institutional reality and participate in the process of shaping a new, more adaptive one. In still other cases it involves examining how larger institutional realities beyond College walls

can be placed into a more mutually transforming relationship with the College such that they each inform each other's adaptive growth.

This connecting thread first emerges in our opening interview (the SOI). However, it does not become clear to me how fundamental it is to her change work until later in the research process. Thus, after the first in-depth interview, she and I agree on three specific adaptive work currents as the starting point for my focal domain boundary:

- Strategic planning
- Student demands for more socially responsible investing
- Development of a college-hospital partnership

I am able to observe a number of meetings related to the first and third of these change currents, but no observation opportunities present themselves related to the college-hospital partnership. In the meetings that I do observe, I notice Janine giving shape to another adaptive current related to diversity work. Although we had discussed this in the first interview, she was not aware at that time of any specific situations I might observe related to this activity during the study period. Also, she thought it might be too amorphous and wondered if the extended timeline she envisioned being required to start seeing this shift happen would disqualify it as an appropriate lens for this study. However, given the many glimpses I caught of her adaptive work in this area, we agree at the start of the second interview to tentatively replace the “college-hospital partnership” item with this “greater embodiment of diversity” item, in the focal domain set. This leads to two additional observations in which I see her working in some way on all three of these tentative work currents. Thus, as I wrap up the field-work and begin iterating between deeper analysis and writing, I use as my analytic guideposts the following three focal domain boundaries:

- Strategic planning
- Student demands for more socially responsible investing
- Promoting greater embodiment of diversity

Through multiple rounds of data (observations, interviews, select extant texts) and theory (Torbert, Kegan, Heifetz) triangulation, I come to appreciate the extent to which these and other work currents being pursued by Janine are interconnected, and oriented toward the larger, more definitive domain reflected in my opening paragraph above - disrupting reified notions of institutions and creating conditions for the emergence of more adaptive institutional realities. As such, I embrace this larger lens, “Institutional Development,” as the umbrella work domain and focus my analysis on how Janine understands and approaches two specific lines of adaptive work that fall within it, each representing a particular element of thriving that Janine seeks to advance. These are: Line of Work #1 “Clarify and advance the mission of whole-student development” and Line of Work #2 “Increase endowment, enrollments and social impact.” The first of the three analytic guideposts (bulleted above) that I carry through the analysis (“Strategic planning”) becomes the singular Action Scenario I focus on within Line of Work #2. The second of these guideposts (“Student demands for socially responsible investing”), along with an emergent action stream (“Giving the work back to College staff”), become the two Action Scenarios that I focus on in Line of Work #1. I eliminate the third bulleted guidepost above (“Promoting greater embodiment of diversity”) because themes I uncover in that data are well represented in the other three action scenarios.

Case Findings: How Janine Uses Complex Thinking to Understand and Approach Her Adaptive Work

Major Finding: While moving between, engaging, and interconnecting multiple internal and external constituencies, Janine encounters a series of critical ambiguities that she interprets as value-reality gaps and addresses through context-attuned, decisive, and creative actions that flow from a convergence of priorities and create conditions for emergence of strategically aligned, community-defined outcomes.

Narrative description of major finding.

In the process of making sense of her role, environment, and adaptive work, Janine remains highly attuned to the many activities and priorities being pursued (or not) by different constituent groups (e.g., students, faculty, staff, parents, community leaders, alumni, etc.). She also pays close attention to the multitude of dynamics shaping her environment, zooming her focus in and out, as needed, to maintain a cross-sectional view of key changes and new developments at different structural levels (situation, institution, town, higher education, nationally, internationally). Moreover, she reads widely, gathering and critiquing ideas and research presented by thought leaders, policymakers, and others offering new perspectives on wide-ranging topics of direct and indirect relevance to her work. Janine takes particular note of the ways in which these different dynamics combine, connect, inform, or otherwise interact with each other, either visibly (e.g., current manifestations) or invisibly (e.g., envisioned or potential). Among the many descriptions she shares of how she takes in, holds onto, and makes sense of these different perceptual streams and enlists them in the process of accomplishing her adaptive work is the following:

One of the challenges is actually reading widely enough, paying attention to enough media streams, just being exposed enough to what's going on out there to be able to pull things in...and then things move in and out. Things

are more and less focal at a particular time...but they leave a trail. In a way all those things leave a trail. And you want to try and keep track of what's out there, but you are also trying to keep track of the trail. (IDI3:972)

This and other descriptions Janine provides of her ways of making sense of and acting on information, convey a kind of rhythmic dance characterized by continual movement between moments of convergence and processes of emergence. Taking a page from Janine's book I'll make this more concrete by examining this idea more closely through the lens of several more situationally grounded examples she shares.

First, talking about her work with students, Janine emphasizes how she helps them develop "a genuine commitment to multiple ways of seeing and an understanding of how to be grounded without having to be narrow" (IDI2:947) while also "helping [them] to think about how to translate that out into the world...[so they] can take those ideas and do lots of different things with them" (IDI2:937). In this case she takes deliberate action to promote convergence around students' "commitments to multiple ways of seeing" and (through other actions, such as those I describe later in this chapter) creates a learning environment and experience designed to support emergence of students' unique expressions of this value ("translate that out into the world").

Changing situational lenses, and speaking of how she approaches meetings with her staff she reflects,

Part of what I am trying to do often is...extract a narrative. If you think about stars in a constellation, there is all of this stuff swirling around and I am trying to pull up the things...that I think both are important and sometimes there are things that I didn't think would be important. They are the anchors for the narrative or the elements of the narrative so that then I can come back and say essentially, "I heard all these things, and together the shape of those things is this." (IDI3:1089)

In this case, the emergence is the set of ideas given visibility by the discussion that appear to connect in some yet-to-be articulated way, and the convergence is Janine's creative act of

bringing these loosely connected points into holistic, visible relationship in the form of narrative. Notably, what she pulls into the narrative are both the community-defined elements that she “think[s]...are important” and community-defined elements she “didn’t think would be important” but emerge as such through the conversation. Following Janine’s description above I ask her, “Once you have the narrative, then what?” She offers the following metaphorical reply:

In a meeting situation, ideally, it enables the collective mind to come to a new place. If you think about it as a kind of stochastic graph, you want the new plateau where you don’t have to go back and have that conversation again. Like everybody is now on this plane. And then you can think, okay, well what do I need to do? What’s the next plane that I need to get to? ...You have to tie it together. You have to bring everybody. (IDI3:1118)

Here she characterizes the collective sensemaking process as a macro-trajectory of emergence (the extended path of the “stochastic graph”) marked by discrete moments of convergence (the “new plateau”) connected by messiness. This capacity to recognize different forms of stability, to see them in relationship, to help a system move between them, and to conceptualize this movement as begin situated in some larger, normative trajectory, is an example of dialectical thinking as defined by Basseches (1984).

A third example of this co-mingling of convergence and emergence is Janine’s account of how the idea to explore a partnership between the college and a local hospital emerges from a discussion she and a senior staff member are having that touches on various loosely connected questions:

[One of the deans] and I were talking about the renovation of the building that currently houses the health center. We were, at that time...going to a donor to kick start the effort with a multimillion dollar gift and she kept saying, “Well, what’s going to happen to it?”...At the same time, [that dean] and I have been thinking...“Are we providing the right range of services?”...Also, we were thinking about whether were we providing the right range of mental health services. Right now [the location of mental health services] is discreet in some senses but not in others...so we were thinking through all of that. [Also] we had a challenging student conduct

situation earlier this year where I was not 100% satisfied with the way mental health services dealt with it, particularly the hand off between mental health services here and the mental health services at the hospital...So this was all kind of in the water, but no resolution. We were just talking through all these things and it was the end of the day and I was just sitting in there with [the dean] and I said, "What if we partnered with the hospital and actually built a facility, and created a totally different kind of partnership with the hospital?" He said, "That's it. That's what we should do." So that's a good day. You've got all of these things floating around that are separate but interconnected challenges or problems or questions or future questions and for whatever reason in whatever moment...it all comes together and you see the way clear. (IDI1:311)

In this case, the proposal that emerges from the discussion, the hospital-College partnership, represents a convergent answer to the multitude of open questions listed above. Additionally, as Janine explains to me right after she shares the story above, the hospital-College partnership serves as a lever for progressing another series of adaptive challenges that Janine and her staff are working on or aware of including: improving 'town-gown' relations, overcoming town resistance to campus expansion, boosting economic development in the region, and addressing regional shortages in primary care physicians.

As these and other stories suggest, Janine doesn't follow a formula for combining emergence and convergence, nor stand in fixed relationship to these dynamics. Her perception and use of these dynamics shifts and changes, as needed, to best leverage and serve the evolving needs and opportunities presented by the community and the context. She remains actively receptive to, and sometimes takes creative actions that represent moments of, convergence. She creates conditions that support distributed moments of emergence aligned with shared values. Moreover, she approaches these processes with a presence that enables her to hold multiple ideas and intuitions in motion without drawing specific conclusions or lines of action too soon, thereby enabling disparate ideas to live side-by-side and mingle in ways they might not if enlisted in more linearly organized problem solving tasks.

Janine harnesses insights gleaned through engagement with these and other dynamics, to direct the community's attention to, and engage them in the process of reflecting on, a series of critical ambiguities defining their shared reality. Table 16 below provides a sampling of the kinds of critical ambiguities she directs attention to at different levels of abstraction within the institution.

Table 16. Sampling of Critical Ambiguities Diagnosed by Janine.

Aspect of Reality	Critical Ambiguity
<i>Institutional Outcomes</i>	How can we evaluate how well our approach is achieving its intended purposes? What outcomes are we hoping to achieve and how will we know if we have achieved them?
<i>Institutional Practices</i>	How can we best structure ourselves, manage resources, and adapt practices to clarify and advance our goals, strategies, and mission? What's an adaptive alternative to our "solar-system" leadership culture?
<i>Institutional Knowledge</i>	What do we already know about whole-student development, integrative education, and self-directed learning? What don't we yet know about this and how might we learn it?
<i>Institutional Identity</i>	What makes us who we are as an institution and which aspects of our identity lie at the root of the extraordinary educational experiences we provide?
<i>Institutional Strategy</i>	What is our vision for where we are headed and what is our plan for getting there?
<i>Institutional Purpose</i>	What is our place in the larger higher education landscape, and what could/should it be? Who is our target audience? How can we become a point of intervention at the sector and societal levels?

The fact that the ambiguities Janine identifies cut across all four of Torbert's territories of experience, is a reflection of the complexity inherent in her understanding of this environment.¹⁴

In the remainder of this chapter, I explore how Janine draws on complex thinking to identify and make sense of specific adaptive challenges she faces (which reflect a blend of the different critical ambiguities above) in the process of trying to advance two specific lines of adaptive work and to engage the community in the learning required to address these

¹⁴ As outlined in Part II of Chapter 2, Torbert's four territories include: *First* - Outcomes; *Second* - Operations; *Third* - Goals/Strategies/Assumptions (identity); and *Fourth* - Vision/Purpose.

adaptive challenges and flourish. Table 17 below provides a roadmap to guide the reader through the detailed findings that follow:

Table 17. Roadmap to Detailed Findings in Chapter 5.

Focal Work Domain: Institutional Development			
Adaptive Work <i>aspect of thriving</i>	Key Strategy <i>using complexity</i>	Adaptive Challenges <i>value-reality gaps diagnosed</i>	Action Scenarios <i>actions & artifacts</i>
Line of adaptive work #1: Clarify & advance the mission of whole-student development.	Engage & reorient the community.	1. Unanswered questions about whole-student development (the ‘unfinished experiment’). 2. “Solar System” leadership model & work culture.	1. “Giving the work back” to College staff. 2. Response to student manifesto on coal divestiture. <i>Note: “Giving the work back” is a concept from adaptive leadership (Heifetz, 1994).</i>
Line of adaptive work #2: Increase endowment, enrollments & social impact.	Co-construct goals, then dynamically interpret them in locally relevant ways.	Lack of shared narrative about the nature of College educational experience and its particular value/relevance to the twenty-first century context.	‘Strategic planning’

Line of adaptive work #1: Clarify and advance the mission of whole-student development.

Environmental snapshot.

Founded in the mid-twentieth century, a time when the educational philosophies of Dewey and other progressives were beginning to take hold in US secondary education, College became one of the earliest adopters of this philosophy in the higher education arena. As such, from the time of its inception through the present day, College has embraced educational principles that place students’ individual needs and interests at the center of the learning process with the aims of: (a) encouraging growth and flourishing of the whole student, not just the intellect or some other discrete aspect of human functioning; and (b)

preparing students to engage in productive social activity and contribute to a thriving society. Also consistent with the progressive tradition, College's educational practices are designed to support student growth through processes that incorporate learning by doing, active experimentation, and integration of curricular and co-curricular activities; and its faculty and instructors are charged with guiding students through this process, drawing upon a highly flexible curriculum and deep relationships with students, rather than transmitting knowledge to them solely via traditional methods.

Many scholars have critically examined the nature and merits of educational practices shaped by progressive philosophies. While in-depth review of these analyses is beyond the scope of this research, a short foray into this literature returns an important insight. Another principle which is fundamental to the progressive education philosophy is the assumption of *reconstructivism*, the idea that the value, merits, form, and functions of progressive education (or any educational approach for that matter) must be continually re-evaluated against the shifting realities of the dynamic context in which the approach is situated, and redefined to best address the needs and challenges of the present (Neubert, 2009). In other words, to fully embrace and embody a progressive educational philosophy, institutions that are committed to fulfilling the promise of progressive education must continually reflect upon, reimagine, and redefine what it means and what it looks like to do so. The parallel to whole-student development is clear: just as faculty advisors must remain attentive to the emergent needs and interests of the students as they strive to find meaning for themselves as individuals and participants in human society, so must institutional leaders remain attentive to the emergent needs and interests of the institution as it seeks to fulfill its progressive mission and contribute positively to the larger institutional landscape. Moreover, just as teacher-advisors must continually restructure the curriculum around students' evolving

interests, so must administrators continually restructure the way the institution conducts itself in order to meet the institution's evolving vision.

Key strategy using complexity: Engage & reorient.

Janine uses engagement as an entry point for mobilizing the community to take up its adaptive work including, in this case, the work of clarifying and refining its understanding of one of the critical ambiguities it faces: what it means and looks like to educate the whole student. She asks different constituent groups what they want and care about, joins them in thinking about those things, and engages them in inquiry about how those concerns connect to the interests of other constituent groups and the larger concerns shared widely by the community.

As part of this process, Janine draws on her vivid awareness of the constructed nature of reality to help people recognize some of the ways in which they are unduly constrained by their particular lens on a situation (e.g., an overly narrow frame, location of the work at the center of their narrow interest group) and supports them in finding new ways to situate their local concerns within larger frames of reference. She introduces new metaphors ("a frame they can hang their work within"), language ("ready for our life's work"), internal reference points (strategic plan, educational outcomes) and external reference points (peer colleges; national discourse on the role of integrative education) to be used as tools for breaking unconscious habits of thought and speech, and otherwise building a more collective understanding of the present and vision for the future. Meanwhile, she remains open to similar shifts and redirections in her own thinking that come out of her engagement with different constituencies. She actively seeks feedback and perspectives that help her test and expand her understanding (e.g., 360-degree reviews by staff; open door policy inviting feedback and concerns), and demands that others do the same. She

introduces processes that help the community reflect in more collaborative ways on their collective ideas and actions (e.g., outcomes project), and reconfigures institutional structures (e.g., blended committees) to support more open, two-way communications across constituent groups.

As I explain later in the Action Scenarios, Janine’s reorienting interventions perform such in-the-moment functions as: reframing assumptions (“what are you really trying to accomplish?”; “what is the alternative to our current solar system model of leadership?”), shifting the discourse (“it’s not just about the admit/don’t admit decision but reframing college”), and expanding the field of reference (“what are the foundation’s priorities for promoting social change and how can our learning from this experiment in progressive education inform the field?”). Through this strategy of engagement and reorientation, she leverages the dynamic tension between on the one hand, evolving shared goals and frames of reference, and, on the other hand, unique, locally defined, situationally relevant expressions of, and engagement with, these shared principles.

Adaptive challenges.

As Janine strives to engage the community, and reorient it toward the more adaptive work needed to progress its progressive liberal arts mission, she encounters significant challenges. She explains that many of these challenges stem from unanswered questions about (1) the meaning and mechanisms of whole-student development, and (2) how to shift the leadership culture at College away from what she calls a “solar-system” model. These unanswered questions are examples of the kinds of critical ambiguities she illuminates for the community, and strives to help its members learn their way through—together. I discuss each of these challenges below.

Adaptive challenge 1: Unanswered questions about whole-student development (the ‘unfinished experiment’).

Janine tells me that one of the factors that initially drew her to College was her realization that one of the “hardy perennial conversations” (SOI:713) at the institution was about how to find and provide the right balance between chaos and control in the process of educating students and, as a corollary, in the process of bringing about adaptive change in the world. At the institutional level, this question can be interpreted as asking how should we construct our institutional holding environment (or set of institutional values, norms, processes and practices) to best promote the kinds of engagement, learning, and growth that our progressive philosophy contends are needed for our students to go out into the world and live fulfilling, civically engaged lives. Speaking to the societal corollary she ponders,

If you strip away a lot of the conversation about: Big government or small government? What should public policy do? What should public policy not do? What should institutions do? What should they not do? What should parents do? What should they not do? All of this stuff is fundamentally about that. How much is chaos, how much is control, what's the optimal balance? (IDI:725)

While the institution has rightly, in her view, embraced this as a critical line of inquiry that should be kept alive and used to shape institutional practices, Janine finds, upon her arrival, that the community’s approach to answering this question has become somewhat disconnected from the concrete world to which it relates. The institution has not fully harnessed or clearly articulated the learning that has been realized through its ongoing practices nor engaged in enough systematic reflection on its own processes and principles in the context of this question. Nor has it sufficiently shared and tested its growing insights related to this question with enough external reference points to both inform and learn from the broader discourse related to this and other questions, such as, “What are the purposes of higher education and how might we, as a society, achieve them?” In short, as emphasized in

the 2014 accreditation report, the “experiment” of progressive education declared as the founding impetus for the institution has never been formally tested. The adaptive work, in Janine’s view, includes following through on this experiment by engaging in more deliberate and visible testing of its inputs, outputs, and outcomes and more intentional harnessing of ongoing learning to continuously refine and update College practices.

Adaptive challenge 2: “Solar-system” leadership model and work culture.

Janine explains how, when she arrived at College, she encountered a “solar-system model of leadership, where you have the sun at the center and everybody moves in a relatively fixed relationship to one another, but always the gravitational pull is towards the center” (IDI2:567). As such, she sees part of her adaptive work as “shifting the management culture” (IDI3: 7) away from this model, which locates the primary source of power at the center (with the president) to a new form which, in her view, is something like a team-based model, or a network model in which the nodes represent the issues or the adaptive work that need to be accomplished, not specific people or functions.

Janine’s vision of what this alternative looks like, or the best metaphor to describe it seems to be still evolving. However, she articulates some of the principles that she anticipates the new form will reflect. For example, in the alternative she envisions: “people have a stronger sense of participating rather than being told” (IDI2:555), “people have a clearer sense of what their jobs are and what it means to be good at them” (IDI2: 556), power is more distributed across the system (my paraphrase) (IDI2:575), and as described above, leaders develop more dynamic relationships defined with reference to the adaptive work rather than positions. At one point when she is speaking about her efforts to promote this culture shift, she articulates a question that remains alive for her, which is, “How do you do that [shift from a solar system model] other than just by force of will and leading by

example?”(IDI3:10). Thus, she defines the adaptive work associated with the culture shift in a way that spans three challenges: (a) shifting attitudes and behaviors in ways that create new patterns of thought and action aligned with the new model, (b) refining her own and the leadership team’s vision of what the alternative leadership culture looks like, and (c) harnessing her own continuous learning about how to tackle this kind of adaptive work, which she is boldly pushing forward even in the face of these open questions.

Glimpses of Janine in action.

Next I explore two action scenarios that illustrate how Janine uses complex thinking to address these challenges.

Action scenario 1: “Giving the work back” to college staff.

Janine works to engage staff at all levels of the College in thinking more intentionally, and creatively, about what it looks like to support whole-student development. She enlists them in experimenting with new ways of working each other, and with the constituencies they each most directly serve, in the process of generating individual and organizational learning. Below I explore this aspect of her leadership practice as it plays out with respect to two activity streams: (1) reframing staff conversations, and (2) defining educational outcomes.

REFRAMING STAFF CONVERSATIONS.

Janine finds opportunities in her ongoing interactions with staff in meetings, conversations and other communications, to direct attention to certain kinds of adaptive work that could be, or in some cases must be done, in order to better align the work of the college with the value of whole-student development. This value is widely embraced within the College community, but, she believes, so thoroughly, tacitly, and viscerally so, that it seems to have slipped into the dangerous realm of the underexamined. In the process of

acting on these opportunities, Janine unearths the value in a way that also poses the (implicit) question: How might I, you, and we interpret what this value means with respect to this particular situation, and act differently right now to ensure that we carry it more concretely and consciously into our work? Thus, she reframes conversations, refocuses activities, and reorients arguments to ensure that they not only remain aligned with the essence of this value, but simultaneously seek to clarify, refine, evolve, interpret, articulate and test it in ways that enable the community to deepen its understanding of what it means and what is needed to more fully achieve it — today. In the following examples, just a few of many, she sets clear expectations that her staff take up this adaptive work while supporting them in doing so in whatever way makes most sense to them given their deep expertise and the specific situations they face.

She describes, for example, how in one conversation with the admissions staff, just prior to their departure on a two-month admissions road trip, she asks them to remember that their power extends beyond the admit/don't admit decision. She describes to me how she said to them,

This is a moment of incredible anxiety for families for all kinds of reasons. [You] have the power to help families rethink their anxieties whether those kids come to College or not. [You] have a moment with those families to *reframe college*. In that, you have a power to open up a much wider range of possible outcomes for those families and those kids. (IDI3:776)

She tells me that her intent with this comment was to “let [the staff] know that they’re bigger than the work that they do; that the work they do fits into something larger, and the something larger is not only the institution” (IDI3:762). This comment expresses a complex logic of coherence, which motivates actions aimed at acknowledging the partiality of given constructions of a situation, and the value of adopting larger (not just different) frames of reference in the process of deepening understanding of that situation and deciding how to

act. Notably, she doesn't say, "Remember the whole child!" Rather, she primes her staff with the idea that their work can contribute to larger adaptive currents and entreats them to take up the adaptive work of figuring out what that might look like. She offers the example of helping families see that choosing a college can be similarly taken up as an adaptive task. In other words, admissions staff, she suggests, can help families see that admissions is not only a checklist of application milestones and standardized tests, but can also be used to inform thinking about what it means to be educated, and what kind of schools can support that end. I begin with this example because it is so simple and fleeting. Yet it could impact so many different conversations over the next two months, thus promoting emergence of unique interpretations of this convergence of attentions on the question: "What is my part in this mission?"

In a similar example, Janine recounts how a particular student conduct incident had led to activation of a series of institutional mechanisms with multiple members of her staff, from different functional areas, mapping out a plan for next steps. She adds that, on most campuses, policy with respect to this particular conduct issue dictates that the school send the student home, and that was the direction her staff was taking the issue. Other students on campus were upset and some had participated in group protests over this course of action. The situation was further complicated by the family's confidence that the school was better equipped to handle the student than they were. Janine explains,

Somewhere along the line it became clear to me that this was not being handled well for a variety of reasons that I don't think are relevant. I went in and I just said, "Well, what if he stays? What does that look like?" I actually have no preexisting substrate in that sense other than the desire to look after the student and say if he stays and [particular outcomes are realized], then the ripple effect. It just led to a very different kind of conversation, which led to a different outcome. (IDI2:761)

In this situation, the staff becomes over-embedded in the discussions about how to carry out the sector-legitimated policy of sending the student home while also addressing the complications introduced by student and family unrest. As with the admissions example above, Janine swoops in and asks a completely different question located outside the frame defining the original discussion. She asks, “What if he stays? What does that look like?” Notably, after making this intervention she doesn’t take over the process or the decision, but leaves to her staff the adaptive work of answering the question, deciding if it’s a viable option, and mapping out a final course of action. In a sense, she authorizes a more expansive set of action alternatives, but leaves the staff to determine which action to pursue. Here we see her co-locating authority for determining what is right and true in both herself (she authorizes a larger set of possibilities) and in the community (they choose the best course of action for this particular situation).

CO-CONSTRUCTING EDUCATIONAL OUTCOMES.

At a more institutional level, Janine acts in a number of ways to highlight the need for the community to be more deliberate and collaborative in its efforts to articulate and codify its yardsticks for educating the whole student. Specifically, she charges key constituencies with defining the set of outcomes that they believe represent successful achievement and embodiment of whole-student development. In other words, she engages them in answering such questions as: How can we find out if our experiment in progressive education has been, and continues to be, a success?; How might we be wrong about what it means to educate the whole child, in which case we need to adjust our practices to make them more effective?; and How might we be right about this, but because we can’t articulate it clearly, we can’t share this knowledge with others in ways that shift, in adaptive ways, the national conversations about the purposes of higher education and processes for assessing

educational outcomes? Janine describes her understanding of this element of the institution's adaptive work in this way:

The outcomes conversation in higher education I'm of two minds about. I'm actually pushing it pretty hard here, partly because I think we have to have the conversation whether we end up there or not. It is a way to get the community here to think about the educational experience here in a way that's been hard to do before, because I can use this external conversation to push the internal conversation in a particular way. Not with a particular outcome in mind, but in a direction that people have been hesitant to go. (SOI:642)

Here she highlights how she uses the “external conversation to push the internal conversation in a particular way.” By this, she means that she uses the external conversation to underscore the urgency and relevance of the internal conversation thus motivating engagement in this difficult adaptive work, rather than using the external conversation as a template for the particular path or outcome of the internal conversation as a less complex-thinking leader might do (e.g., “not with a particular outcome in mind, but in a direction that people have been hesitant to go”).

Later in this same interview she admits to having “mixed feelings about the idea of articulating outcomes and using that as a yardstick of education or educational quality in some way” (SOI: 650). She sees both “real downsides” and “potential value” in defining and measuring concrete outcomes, which impacts are likely not equally realized by all groups, further underscoring the adaptive nature of the work. Being still only mid-way through the internal process of examining this issue, she has not yet landed herself on a particular vision of the best outcome. What's interesting is that she reports, “I don't waffle about the process of thinking through it but I waffle about the desired result” (SOI: 650). Here, she reveals her complexity by giving primary emphasis to shaping good process and trusting that whatever outcomes emerge will provide concrete, community-tested yardsticks to guide institutional action.

In addition, Janine brings attention to important, forward-thinking questions such as: How, *if at all*, should the outcomes that we define be used in our pedagogical model and discourse? For example, she states,

The question for me really is not whether we should be thinking about outcomes, it's whether articulating them limits students' ability to see themselves in the broadest possible way and in the kind of brightest possible light. So, are we telling them what we want? And by telling them what we want, are we limiting what they can see themselves doing?... if someone is always telling you what to look for, do you know how to see? (SOI:680)

Janine informs me that the outcomes conversation is a key element of her strategic plan. It is described as such in both the 2014 interim report to the regional accreditation body and in a 2015 foundation proposal requesting a major grant for work in this and related areas. Two snippets from that foundation proposal (written by Janine's staff with input from her) read,

As the national debate presses the question of what makes the time and expense of college worthwhile, we are convinced that College's progressive model of education has never been more relevant and compelling. To ensure College's continuing vitality, and to position ourselves to be a voice in this larger debate, we must continue to invest in and reinforce our core principles. (p.1)

The College must first clearly articulate the purpose of a College education, in concrete and explicit ways that can be readily understood by all, so that we can both improve the education we provide and better describe its values and content to current and future stakeholders. The cornerstone of our efforts is a new system for evaluating student progress and success based on identified learning outcomes. (p.3)

Whereas Janine's comments presented earlier reveal how she deliberately uses the external conversation about outcomes to motivate the internal one, the above excerpts show how the explicit internal focus on outcomes has potential to (a) attract funds to the institution given relevance to the field of experimenting with alternative ways of defining and measuring educational outcomes, and (b) benefit the field by harnessing, in a more concrete form than

has been done in the past, the learning from College's eighty-year 'experiment' in promoting whole-student development.

In one senior staff meeting I attend, I observe Janine and her staff review and discuss an early draft outline for this proposal. Many of Janine's contributions to this part of the meeting focus on emphasizing the need to connect the language, priorities, and specific funding targets discussed in the proposal to different external reference points, including: (a) the mission and funding priorities held by the foundation from which they are seeking the grant, and (b) national trends in higher education showing increased interest in integrative and self-directed learning approaches. Speaking to the first (a) she emphasizes the need to ensure that the grant proposal is prepared in a way that is "Foundation C ready" (OBS:J2-27), which she explains to mean that it is clearly aligned with Foundation C's institutional (Board) priorities for promoting certain kinds of change in higher education. For example, she points out that this particular foundation is more concerned with cognitive aspects of student development and therefore suggests that the proposal emphasize these particular outcomes (e.g., problem solving, self-directed learning) drawing selectively from the larger set of outcomes being defined in the ongoing outcomes discussion. Speaking to the second (b) she suggests they develop the proposal in a way that helps the foundation understand how College is already moving in the directions that the research is now calling for (e.g., moving toward a more integrative approach to advising) but needs funding to support success in distinct areas (e.g., hiring a cognitive psychologist to work in the dean's office). While she offers these specific suggestions based on her knowledge of the foundation, she urges the staff working on the proposal to engage in their own discovery process to refine their understanding of the points of connection between Foundation C funding priorities, research showing trends and best practices in higher education, and College's educational

mission and development priorities. In other words, she draws a larger frame, which incorporates the foundation's construction of what kinds of change are needed in the world, and then charges her staff with defining and articulating College's funding priorities in a way that is authentically informed by this frame. By authentically, I mean that she expects knowledge of the foundation priorities to be used to not only find language that will attract needed funds for College priorities as currently defined, but also shape College leaders' understanding of what kinds of priorities the College should be pursuing—a dialectical approach to problem and solution definition.

In a subsequent interview, when our conversation turns back to the topic of outcomes, Janine indicates that while she continues to push the outcomes work forward in very deliberate ways, it is currently in a phase that involves gathering insights and perspectives from faculty and, she explains, “I am not always the best instrument for that.” (IDI1:1104) In this comment she highlights her use of situational knowledge to adjust her approach as needed to accommodate the evolving needs of the project. Specifically, she has charged one of her deans with implementing a faculty survey, thus providing an additional stream of concrete input to the larger process designed to explore points of convergence among multiple perspectives and ultimately, emergence of a new articulation of desired outcomes. The task of engaging faculty in this discussion represents a formidable adaptive challenge in light of heavy faculty workloads, current incentive structures, and financial constraints. The major grant being requested through the proposal discussed above will be used, in part, to alleviate some of these pressures.

In sum, this action scenario incorporates two very different illustrations of how Janine uses a reorienting strategy in meetings and conversations with her staff to engage people in adaptive work aimed at larger goals. From the many situations in which I saw her

using this strategy, I specifically chose one example that represents sustained and intentional application of this strategy to shape engagement in and the trajectory of a major adaptive endeavor (i.e., educational outcomes) and two more local examples (i.e., the admissions meeting and the meeting to discuss the student conduct issue) showing how she applies this same strategy at opportune moments. In these and other situations, Janine joins her staff in thinking about what it means to carry out their work on the ground, reorients them to adaptive work aimed at values that are shared by, but extend beyond the College, and demands that people within the College find concrete ways to align their day-to-day goals and activities with these larger aims. It is, in part, through consistent application of this approach (a form of convergence perhaps) that Janine hopes to shift the leadership culture from a solar-system model to a more team-based model in which distributed actions aimed at larger shared goals help position the organization to better serve its students and leverage its own learning to shift the field.

Action scenario 2: Response to student manifesto on coal divestiture.

The next glimpse of Janine in action that I share is a story about how she responds to students who have taken up some adaptive work of their own. The story begins when students interrupt a town-meeting-style gathering at the College and read what Janine perceives to be a *manifesto* on coal divestiture, or the process of selling off institutional holdings in companies associated with fossil fuel industries. As I will show below, Janine does not interpret the situation as a value conflict, as a less complex person who is less grounded in the knowledge that all views are constructed and partial might do. For example, she doesn't see the students' (self-proclaimed) value of environmental health as being in conflict with the Board Investments Committee's (legally infused) value of financial stability. Rather, she interprets the situation as a value-reality gap grounded in an underdeveloped

understanding (by students and potentially also by College leaders) of what factors do, and should, influence investment strategies, as well as how to best lead adaptive change with respect to this issue. She recognizes this as an opportunity to advance their shared goal of educating the whole student through self-directed learning guided by appropriate supports. As implied by Action Scenario 1 in this line of work, there is currently no clear institutional prescription for supporting this kind of learning experience and integrating it into the students' broader, self-defined learning trajectories. Janine describes her initial response to this incident as follows:

We said [to the students], "Well, let's talk about it." So, students came in and I said to them, "What do you really want to do?" [They replied], "We want to divest from..." and they're reading the script basically. I said, "What do you want to do? What are you trying to accomplish? We have a very small endowment. If a very small endowment falls in the forest and nobody is there to hear it, does it really matter? Are you trying to make a political statement? Because believe me, nobody [cares] about what we do with our endowment. It's not enough money. It's going to have no influence. If we're trying to actually influence what the energy companies do, this is not going to do it. So, let's think again. It doesn't mean that we don't do this too, but let's think about what we're trying to accomplish. If the goal is to make a political statement and stand with our brother and sister institutions who have done this, okay, again, do we really think anybody is going to care that we've done this? Is anybody going to get on the bandwagon because we've done it? Maybe not...Or are we trying to live according to our values? If that's the case, is this the value of paramount importance? It's the value of paramount important perhaps, but I am not even sure, to the four of you who are sitting in my office, but is it the value of paramount of importance to this entire community? What about, hopefully we don't invest in companies that employ child labor, but chances are we do. You can go back in the supply chain, but it's very hard. So, is that more important? Less important? What's the discussion that we want to have?" (IDI1:471)

Similar to Harold's handling of the meeting with Community College system leadership to discuss the Bachelor of Science in Nursing (Line of Work #2, Action Scenario 3) in which he asked, "What are we trying to accomplish?" Janine's opening questions "What do you really want to do? What are you trying to accomplish?" both join the students where they are by focusing squarely on their concerns, and reorients them to a larger discussion regarding

the issue. Specifically, she helps them place their concerns in a larger frame in which more of the existing realities, tradeoffs, and value-tensions become part of the parameter set they all use to think through the issue. Metaphorically, she opens the door for them to take a seat at a larger table but only if they are willing to do the difficult work of educating themselves, and the Board, to this larger reality, rather than focusing their efforts solely on achieving their particular goal (coal divestiture).

With input and light guidance from a member of Janine's staff, the students take up their part of the work and throw themselves into research to learn more about this larger reality including: (a) how institutions work (e.g., fiduciary responsibility of Board), (b) how investments work (e.g., blended funds, fund managers), and (c) other values in the College community affected by institutional investment decisions (e.g., financial strength of the university, other social priorities). Thus, she engages them in an educative process aimed at helping them understand some of the areas in which they need to deepen their knowledge if they hope to influence progress toward the goal that they've set - divestiture of this college's investments from the fossil fuel industry. Second, she engages them in thinking critically about whether the goal that they've set will help them achieve the value that they share which, in the context of whole-student development, is the students' success in leading adaptive changes that matter to them—in this case better environmental health. When students demonstrate through their continued engagement that they are serious about this work, Janine invites them to give input to the process of developing a Request for Proposal (RFP) that the Board Investments Committee is preparing as part of its upcoming review of investment management relationships. Thus, the students learn even more about the institutional processes involved in managing investments and the Board broadens its own

decision criteria to incorporate an assessment of socially responsible investment policies and practices.

As a result of the RFP process, six investment management firms are invited to present their services to the Board Investments Committee. Janine invites a representative of the student group to attend this meeting. In this case, the student group is given a seat at the literal table where the presentations are being made by vendors and discussed by trustees. I have the opportunity to observe this meeting and notice that every one of the six management firm presentations incorporates a review of, or comment on, socially responsible investment practices (OBS:J3). In one case, this review is specifically prompted by a question asked by the student during the firm's presentation. In another case, the review involves a brief, unprompted acknowledgement by the firm that it does not use the criteria of social impact as part of its investment strategies on the grounds that it could conflict with the value of securing the highest possible returns for the client. In the remaining four cases, the firms provide a substantive, unprompted review of their policies in this area as part of a larger presentation highlighting other aspects of their qualifications as you would expect (e.g., return history, investment strategies, approach to the client relationship, etc.).

Several firms bring a dedicated resource with special expertise in socially aligned investing strategies and several present materials explaining a branded socially aligned investing platform they have developed or are in the process of developing as part of their overall offering. These four firms report holding different assumptions about the relationship between investment returns and social impact (compared to the firm I mentioned above). Some emphasize that social investment strategies can be used to boost returns if done right. Others suggest that the two values can be balanced to align with particular institutional goals. Thus, the Board is exposed to this range of informed

perspectives on the value and feasibility of pursuing both social and financial returns (granted, as members of the investments committee many of these trustees have likely been exposed to these ideas before but perhaps not all of them). After the presentations are finished, the Board engages in discussion of the credentials and strategies presented by the six firms and agrees that two in particular seem worthiest of moving forward in the selection process. One Board member specifically invites the student to share her impressions; which she does. Her two top choices align with those landed on by the Board; she reports that those are the two that she feels offer the most strength in the area of socially aligned investing. Most likely the student gives greater weight to the social impact portion of the presentations than does the Board (a hypothesis Janine later reinforces), however the alignment of the overall strengths of the investment firms across the Board's full set of criteria and on the specific social criteria embraced most tightly by the student is interesting. At the close of the meeting the Board agrees to reach out to the two selected firms with a list of additional questions. While the full Board is at the table, the student thanks the Board for including her in the meeting and the students in the RFP process. Janine specifically invites the student to send any questions that she or her group wants to incorporate into the follow-up with the selected finalists.

Stepping back and looking at this action scenario as a whole, we see that the amount of time Janine spends working with the students on this, above and beyond work that she would be doing on this issue anyway is minimal. This underscores how an ongoing, fundamental awareness and continual presencing to the constructed nature of reality (which contrasts with an intellectualized understanding learned from a book or as part of a theory one embraces—a less complex relationship to this dynamic) can attune a leader to opportune moments (some fleeting, some grounded in shifting contextual dynamics) when

actions aimed at shaping and expanding frames of understanding are needed or welcome. As described next, we also see that Janine's response to the students is decisive, sustained, creative, and strategically aligned.

The decisiveness of Janine's actions is best reflected in the immediacy of her initial response: "We said, 'Let's talk about it.' So students came in." This timing is possibly a reflection of the kind of presencing mentioned above. The alignment of her response with larger institutional goals is reflected in the embodiment in her actions of the progressive values embraced by the institution. Below is one of the many ways Janine articulates these values as they relate to the process of supporting whole-student development:

The ultimate goal or the ultimate definition of thriving [internally] is that we are educating students—not that every person has to become a social activist, God knows—but in whatever corner of the world they end up in that they know how to read and navigate the institution and potentially change the institutions that they are engaged with. That they can recognize their environment in such a way that they even know that they are in institutions to begin with. (IDI1:523)

In her work with the student divestiture group, Janine supports particular students in learning how to better lead social change because that is the learning path their actions illuminate. She does not advocate revising the curriculum so that all students are required to participate in institutional change efforts, although notably their involvement in this effort could be easily seen to be promoting some of the very competency-based outcomes that have emerged from early rounds of the outcomes definition process discussed in Action Scenario 1 (e.g., self-directed learning, connecting work to broader contexts, among others). Rather, Janine is receptive to the emergence of a particular interest in a particular group and engages these students in ways that promote learning across multiple segments of the community (students, staff, the Board) while also offering students opportunities to advance their values in the process (e.g., broadening the Board's criteria for evaluating investment

managers, exposing themselves and the Board to informed perspectives on the relationship between investment returns and social values.)

The creative quality of Janine's response becomes clearer in the context of the following quotes, the first and last recounted in reference to two other incidents of student activism on campus (in which she expresses generalized views that apply to this issue as well) and the middle one dealing specifically with this divestiture issue.

I had a bunch of students...not protesting, but kind of gathering right out there [on the green outside the president's office]. And it is a human and institutional instinct, not just ours to like kind of batten down the hatches a little bit, and send out an emissary. But, I was like, "Let's invite them in. Let's invite them in to talk about what it is that they are trying to do." And so we did that. (IDI1:460)

[The students] came to me at the end of last year and they said, "We're on all of these listservs...for students who are trying to get their colleges and universities to divest. And it's not actually that useful to us because everything is about getting your president to pay attention or getting the Board to pay attention, and there's nothing about what to do next. It's like how to stage a sit-in in the president's office." And I was like, "You guys can sit here." (IDI1:505)

Actually, I want students to protest to bring up ideas. There's a certain aspect of it that's a giant pain for the administration. Like, "Oh for God's sake...like really, we could take on all kinds of things and we're going to do [x] as the big rallying cry?" But if that's what they choose then let's meet them where they are. (IDI1:460)

In the top comment, she reports an awareness of "a human and institutional instinct" to respond to things like protest gatherings and manifestos in a particular way. Rather than blindly following this instinct, she steps back and acts more intentionally in ways that are aligned with her more fundamental personal and institutional values. The uniqueness of this approach is highlighted by the second quote above indicating how similar other administrators' responses are to each other, and how different they are from the actions she took ("It's like how to stage a sit-in in the president's office and I was like, you guys can sit here"). In the third quote she offers another factor that could easily have swayed her from

the course of action she chose. In the most candid terms she admits, “There’s a certain aspect of it that’s a giant pain for the administration” and more implicitly she acknowledges that the particular causes taken up by students are not always the ones that seem to offer the most potential for impacting thriving of the community as a whole. Nevertheless, embracing the whole-student development model, and recognizing that students hold the values that they do for a reason—as grounded in their own personal, cultural, or institutional history—she joins students wherever they are and works with them in ways that both honor their aims and expand their frame of reference for understanding them.

Janine’s sustained but light touch in this situation gives rise to a temporary holding environment that supports students in exercising their available skills and abilities to promote their deeply held values while at the same time challenging them to think in new ways about what it means, and what it takes, to lead institutional and social change. Her actions reflect an emergent and situationally relevant response to an opportune convergence of dynamics: (a) national trends toward divestiture from fossil fuels, (b) student activism aligned with this trend, (c) the institution’s open questions about how to best support whole-student development, and (d) the timing of the Board’s critical inquiry into its investment management relationships. At one point in our first interview Janine reports that one of the questions she and others at her institution wrestle with is “How do you embrace it without crushing it?” (IDI1:431), where *it* refers to everything from student-generated work to the variety of interpersonal and institutional relationships that get created in the process of carrying out the mission. Janine’s actions in this scenario offer an interesting answer to this question that incorporates: multilayered attunement and receptivity to moments of convergence, actions that create conditions for emergence, and sustained efforts to remain present to the fundamental aims and mission of the College.

Line of adaptive work #2: Increase endowment, enrollments, and social impact.

Environmental snapshot.

Each of my research participants, at some point during our interviews, mentions their interest in leaving behind a legacy that has real value in the world. Moreover, all of them contend that one of the reasons they decided to take up their current role was to expand the scope and worth of their adaptive leadership impact. In light of this context, Janine's choice to leave a large research university, where her work had the potential to impact hundreds of thousands of students each year (as well as shape whole metropolitan communities), to head up this College, where enrollments are moderately below one thousand students, and the rural setting limits the scope of direct community impact, might seem contradictory. However, her explanation reveals that, in fact, her actions are motivated by a paradoxical logic in which the seeming contradiction is resolved by shifting the timeframe and recognizing the immediate action (changing institutions) as a necessary step in a larger process (learning and capacity building) aimed at achieving the ultimate goal (broader social impact). Specifically, she justifies her decision as follows:

I felt that, relatively speaking, the scale of College would enable me to understand a lot more in depth the ways in which an institution of higher education can be an intervention point [for broader social impact]. The way that Research University articulated being an intervention point, which I was part of...was by changing the way that people think about what a research university can do and what the obligation of a public university is, [and] shifting that discussion...The core of it is about more students having the kind of maximal college opportunity...The way to do that at a big research institution is to bring in researchers who work on that, and teach it in the classroom, and do research on those questions, and frame the discourse. I understand how that works and I think it's incredibly important. We, at smaller institutions, benefit from that work. But the question of how you actually move from that framing to a sense, among students, that these are things they can actually change is a big leap. Knowing that a way of framing something differently exists is important whether you came up with it or not. Understanding how to come up with your own framing and recognizing the origins of that framing are all important. But if that were enough, then the

world would be a very different place. So then the question is: What's missing from that? I felt like this was a place where I could not just watch how it works but really roll up my sleeves and get my hands dirty and understand what was missing. And I could do it in a community of people who were also interested in that. (IDI1:119)

With this comment, Janine reveals the attention she gives to the ways that particular parts of the system, institutions differentiated by size in this case, not only offer her different opportunities to impact the community and grow as a leader, but also contribute in different ways to the larger processes of building stronger communities and educating people to meaningfully participate in that process.

Just as Harold saw high-quality, competency-based programs as an important part of a larger solution to the rising costs of higher education, here Janine sees the discourse-shifting and framework-building roles of research institutions as an important part of the larger solution of providing the kinds of education that shift social dynamics in adaptive ways. She acknowledges that the scope of her leadership impact over the next decade (or however long she stays at College) may be smaller in some objective sense than it would have been at Research University, but she believes this move will enable her to develop for herself and others, new understanding of what else needs to happen at universities in order for the sector to achieve its most fundamental purposes. This thought process suggests a complex-thinking informed motive grounded in the desire to illuminate, and more deeply understand, the nature of some larger system that she assumes is operating, but is not yet reflected in current views of it (e.g., “if that were enough then the world would be a different place”).

Through this research I’ve learned that Janine’s question toward the end of the quote above, “What’s missing from that?” is a quintessential complex-thinking query, reflecting a fundamental interest in discovering some larger reality that lies outside of any single person’s

(or in this case any single sector's) understanding. It is Janine's desire to help herself, her organization, and the sector address this critical ambiguity (how to ensure all necessary functions in that larger yet-to-be understood process are being served) which leads her to take up the presidency despite the short term tradeoffs (with respect to scope of personal impact) that it entails. She acknowledges of course that there are other benefits to being College president, including prestige and access to certain social networks, among others. She also works diligently to maximize the impact she can have from her current role, working to expand the very limits of what is possible through the assumption-shaping activities described in this chapter.

Janine also understands that, from an institutional perspective, the goal of broader social impact is inextricably intertwined with the goal of institutional development (financial and otherwise). Responding with light humor to one Trustee's inquiry during a Board meeting regarding prioritization of expanding the administrative staff (a need that I and others had heard her allude to in several meetings), Janine emphasizes that increasing enrollments and increasing the endowment need to take priority over such expansion because, after all, "Without students and money it's a bunch of people hanging around" (OBS:J7-26). Although her reply is mildly cheeky, the underlying message reflects her data- and community-substantiated position that the College needs to strengthen its financial position and become less reliant on fluctuating tuition revenue streams if it hopes to not just survive, but engage in the kinds of institutional learning and leveraging that she, and others, hope will characterize the next era in the College's history.

Armed with data Janine also alluded to, which showed that College spends less on nonacademic functions than a comparative sample, a less complex-thinking leader operating within a shorter time horizon might be more eager to quickly build up the administrative

staff in order to support faster progress toward short and mid-term goals. Janine, however, resists this temptation for the most part and instead “reconfigures” existing staff and committees to best utilize available resources, while focusing her investments on capacity-building efforts that will make subsequent administrative expansions more meaningful. Of the three new positions she did create, two support institutional advancement (the third is a part-time diversity coordinator, whom she emphasizes will not own, but instead work to catalyze and coordinate College-wide diversity-promoting efforts)).

Highlighting her recognition of the ways that these different goals interconnect, Janine reports,

These are the three things I want to happen before I go: either at or on our way to \$100 million in endowment; at or on our way to 1,000 students; commons renovated. The second thing is related to [what I’ll now add as a] fourth thing, which is really the umbrella, which is much broader recognition for College, who we are and what we do... The outcomes [project], the management absolutely, the diversity, they’re not all equally connected to all of those four things, but they’re all connected to those four things. (IDI3: 1329)

A less complex leader might take up these same goals for different reasons. For example, she might deduce that those particular accomplishments would gain her acclaim, or meet the expectations of powerful constituencies (e.g., the Board), or reflect outcomes that she has determined will, in themselves, represent success against some internally constructed yardstick. However, Janine does not view the accomplishment of these goals as a mark of ultimate success. Rather, she views them as yardsticks for measuring progress toward the larger goals outlined above, and as processes through which she can help the community build the capacities it needs to continue that kind of work on its own. If I help the community accomplish these goals, she is suggesting, my work here is done, but not because the work is done, but because the community is now better resourced and better positioned to continue its work without me, and I am better leveraged contributing to adaptive

institutional change elsewhere. The goals represent (adjustable, as we will later see) milestones in a larger process aimed at discovering, together, what is needed for and by the community.

Illustrating a practice I saw Janine (and my other participants) use often, Janine illuminates the relationship between the goals of growing the endowment and growing enrollments by introducing a concrete, contextualized example. Specifically, she asks her CFO to create a matrix modeling growth in the endowment and in enrollments starting at current levels and progressing in fixed increments to a 100% growth target. She indicates that a remark shared by the Board chair in response to seeing the matrix, “It’s just amazing how clear this makes it” (IDI3: 28) characterizes the general Board response and explains,

Up until now we’ve been having these conversations about the principle and the idea and everything was in the abstract. Nobody ever put all the data out there. What the conversation became was this very kind of “I have a point of view or a philosophy about money. You have a philosophy about money. You have a philosophy about the relationship between money and culture. You have a philosophy about the relationship between money and institutional inertia, and so on.” (IDI3: 31)

Here Janine points out that before the introduction of this shared reference point—the matrix—people applied their different lenses to the conversation in ways that resulted in overly abstract discussions, thus hindering progress toward developing an endowment-management strategy that reflected their particular institutional reality. The value of her intervention becomes clearer with the following added context explaining its deliberate timing. She notes that the Board had been arguing over the ethics of prioritizing endowment growth, a conversation that was sparked by a *New York Times* article they had learned of, in which it was reported that certain prestigious universities paid more to private equity wealth managers than to financial aid programs. She introduces the matrix because she feels that the conversation has drifted into “fantasyland” (IDI3: 43). She explains,

The tradeoff is the not the same for us [because of the small size of our endowment]; yet we're talking about ourselves as though we have the decision to make that Prestigious University has because it's all conceptual; whereas when you ground it in the data, it's about a sense of self on the part of the institution that gets conflated with a sense of self on the part of each individual Board member that in the absence of the data you actually can't see the institution. Each individual Board member can only see their institution as they see it. (IDI3:59)

Here she points out that without the anchor of shared institutional identity, people “can only see their institution as they see it,” which is through their independently constructed lenses. She reminds the Board of the importance of keeping the conversation grounded in the realities of their particular situation, rather than becoming locked into circular dialogue about issues that hold little relevance to them. In this case, she sees that the needed external reference point is not external to the system (as when she draws on peer college examples or industry-best practices to motivate certain activities), but external to the trustees' independently constructed perspectives, while very much grounded in their shared institutional reality.

A last point of context that frames Janine's understanding of this line of work is her attunement to the broader movement in higher education toward more integrative education, self-directed learning, and new experiments in higher education; all of which represent practices that College has long embraced and carried out. She, and others, believe that College's experience and learning in these areas hold particular value for the field at this moment in the sector's history. However, she also recognizes that College has not demonstrated strength in developing and articulating an institutional perspective on these practices and their place in the larger educational landscape. Thus, as described later in the Action Scenario for this line of work, she mobilizes resources toward a process of

developing a more explicit institutional perspective and positioning the institution in ways that give it a seat at important tables where that perspective can be heard.

In the pages that follow I look at Janine's activities with respect to her efforts to increase enrollment, endowment and social impact, focusing in particular on those areas that provide the best illustrations of her use of complex thinking to understand these goals and move the community toward them.

Key strategy using complexity: Co-construct goals and dynamically interpret them in locally relevant ways

One of the salient threads running through Janine's use of complex thinking to carry out this line of work is the way in which she maintains a tight-loose hold on goals, continually striving to keep them aimed at the higher purposes she embraces while acknowledging the evolving realities of the environment the community faces. Regularly shifting her own, and her community's gaze between the abstract and the concrete, between long term vision and immediate needs, between current state and future possibilities, and between the local and the global, she draws the community into discussions and planning exercises that expose key constituencies to each other's thinking, and to their own, which she finds has been long underexamined in any shared arena.

Seeking to mine institutional, factional, and personal knowledge, and connect these threads to wider knowledge bases, she helps all members of the community become more clear and more aligned in their understanding of their shared values, the many ways that these values can and do manifest in the practices carried out by different institutional players, and the institution's place in the larger higher education landscape. She sets clear expectations around the need to discover not only what values they share, but also what it looks like to *act in the world* in ways that differentially express these shared values. Thus, she deliberately enlists the community in the process of constructing, together, points of shared

meaning, articulating them in ways that make them more accessible for reflection and adjustment, and interpreting them in ways that have meaning in local contexts.

Adaptive challenge.

While Janine faces many adaptive challenges as she strives to develop the institution in ways that promote sustainability (through increased enrollments and endowment) and expand social impact, I describe here what I consider *the* overarching challenge to which she gave sustained attention during the study period, and which I had the opportunity to discuss with her and observe her working on.

Adaptive challenge: Lack of shared narrative about the educational experience and its particular relevance to the twenty-first century context.

One of the central thrusts of Janine's adaptive work is helping the College community, inclusively defined, develop and articulate a shared understanding of the College's distinctive nature, purposes, functions, and philosophy as well as the relevance of these features in today's twenty-first century context. Affirming the centrality of this work to her leadership, within the 2014 College Fifth-Year Interim Report to the regional accrediting organization, one of the specific references to the president's activities begins:

[The president] has spent much of her first year at the helm discussing with students, faculty, staff, and alumni precisely this question of what makes College *College*. The conversations have been about engagement and discovery, with at least one specific end in mind: A renewed articulation of what College is and what it does. (p.22)

The report section in which this passage appears, Mission and Purposes, underscores the adaptive nature of this work pointing to the College community's long held, deeply entrenched "*reluctance* to apply the words [sic] 'mission' to any collection of words about the institution (italics mine)" (p.22).

Having engaged the broad community in deep and difficult conversations about what makes the College special and where it needs to grow, Janine decidedly does *not*

interpret this “reluctance” as a case of reticence and exceptionalism, which descriptors are not unfamiliar to the community. Rather she suggests that the community is lacking the tools it needs, such as shared language for describing their personal experiences with the institution, a shared narrative to explain how the educational philosophy of the institution both supports and is evolved through the specific educational practices taking place there, and a shared vision of the future including an informed perspective on how College might leverage its strengths to extend its educational benefits beyond institutional boundaries. Drawing on her knowledge of the constructed nature of reality, she recognizes that without such tools, individuals construct individualized interpretations of the institution, their place within it, and its place in the market, which may or may not map together in ways that best serve the community and those it serves.

Glimpses of Janine in action.

Action scenario: Engaging the community in a process of co-constructing a sector-relevant, experience-based, identity-crystalizing institutional perspective on the role and process of progressive education (a.k.a., ‘strategic planning’)

The strategic planning process orchestrated by Janine has many complex and interconnected facets. I do not analyze the content of the plan itself, nor examine the process against principles of effective strategic planning. Rather, I examine how three aspects of Janine’s approach to this process illustrate some of the more salient ways in which complex thinking shapes her actions.

EMERGENT, DYNAMIC, CO-CONSTRUCTED GOALS & VISION.

Janine describes the strategic planning process as something that grows organically out of her efforts to engage the community in thinking differently about its goals, values, and vision for the institution. In our interviews, she refers to the process as “the strategic planning process, for lack of a better umbrella term” (IDI:827) emphasizing that she did not

hold that particular frame and goal heading into it. Similarly, when presenting an update on this process in one Board meeting I observed, she begins “I hate to call it, but I will call it, a ‘Strategic Plan.’” She explains to me,

This time last year we had a senior staff retreat. I did not go into that thinking we were going to come out with a strategic planning framework. I asked each individual senior staff person for their area to do one-, three-, five-, and ten-year goals. My intention going in was really just for us to have a sense of what everybody else is doing and for me, a year in, to get a sense of what people felt their jobs were and to get a sense of where people wanted to take the college in their own articulation of it as opposed to my overlay of their articulation of it or them reflecting back to me what they thought mine was. Now, inevitably there's some of that. But we had the former president of Peer Progressive College come in and facilitate that conversation. It went more in a kind of planning direction than I thought it was going to but in a way that was very organic and I think helpful. (IDI2:100)

As Janine reports here, she asked her senior staff to develop goals for their respective organizational units. I learn during my observations that, as part of that process, she encouraged these senior staff members to do so by working collaboratively with their own teams. Thus, Janine broadly engages senior staff and others in the adaptive work of: (a) developing a more inclusive, shared, concrete view of the perspectives held by different segments of the community, and (b) working collaboratively to integrate these locally defined (likely sometimes conflicting) perspectives into a community-wide set of yardsticks to guide ongoing reflection and action (strategic goals).

The way she goes about this flows from her continuous engagement in broader lines of inquiry grounded in fundamental questions about what it means to influence adaptive change, such as the following (the opening line of which I referenced briefly earlier, and now show in its larger situational context):

How do you embrace it without crushing it? Whether it's student-generated work or the kind of really fascinating organic relationships that grow here and with alums and the institutions. At a place like Research University you have to create institutional structures for all kinds of things. Sure, things pop up that are organic, but the vast majority of things run through the operation.

Here, the role of the administration is to skim the surface and make sure that the required supports are there but that you're not creating so much infrastructure that you're going to kill it basically. (IDI1: 430)

When I introduced this question earlier in the paper, it was in reference to my discussion of her approach to providing appropriate supports for student learning. In this context, she engages with this question in reference to developing appropriate infrastructure to promote organizational learning. Remaining actively engaged with such questions, while pursuing specific changes on the ground, she brings to those local change processes her own ideas about what is happening and what is needed. At the same time, she recognizes that neither her own, nor any single leader's research and due diligence, can paint a full picture of the community's hopes and needs, or answer the fundamental questions they collectively share. Thus, she works in ways that allow her to situate her own critical thinking in larger processes that authentically invite others' participation (*embracing* their contributions) while seeking to not over-determine what flows from those collaborative processes (*without crushing* them).

She recognizes, for example, that gathering authentic responses from senior staff in the retreat mentioned above requires careful orchestration of the process. Thus, attending to the underlying power dynamics that are likely to be present in that process, she creates conditions that help uncover her staff's "own articulation of [the goals] as opposed to my overlay of their articulation of it or them reflecting back to me what they thought mine was." Specifically, she has someone other than herself facilitate the goals discussion. Moreover, she chooses an outside peer (modeling the use of external reference points) who understands College's progressive philosophy (modeling the choice of situationally relevant outside perspectives that align with the College's core values).

Also interesting from a complex-thinking perspective is Janine's willingness to let the meeting organically develop in the direction led by this peer, rather than intervening when she sees the discussion veering in an unexpected direction. This is another example of how she maintains a loose hold on her local goals and objectives, using them as a guide and compass (but not a definitive constraint), while continually making adjustments, as needed, to keep the community moving toward its larger goals (in this case co-constructing understanding of where they are headed and how they might get there). She describes taking a similar approach in another situation related to writing the report to the regional accreditor (which report I mentioned in Line of Work #1). When I asked her to talk a little about how she makes decisions about which work to delegate, which to carry out herself, and how she decides between different approaches to moving the work forward she offered the following description of how she worked with her senior staff on this report, and why:

I knew I had articulated in my inauguration speech and a couple of other places where I wanted to head. So I know that they knew generally where we were going... [and what] I thought was most important. But I also know that they know the operational day-to-day of the college...much better than I do. So they're going to know where the space [for improvement] is, and a big part of the report was identifying where the space is. So they came in and talked to me...and said, "Here's what we're thinking and here's where we want to go." I said..."Let's make that bigger, let's make this smaller"...I felt like all the pieces were there, they just weren't all necessarily at the right volume...Then there were things that emerged from that conversation where I said I want to make sure this is included. It wasn't in there before. (IDI3:357)

In this scenario, she brings her own ideas to the conversation ("in my inauguration speech...what I thought was important") and holds them as overarching guiding principles against which she evaluates her staff's inputs (adjusting the relative "volumes"). However, she authentically values her staff's perspectives as necessary for helping them all gain a fuller picture of what is needed ("they know the operational day to day...so they're going to know where the space [for improvement] is"). The notion that she is not using the process merely

as an engagement tool but as a way of expanding her own understanding is her reference to “things that emerged from that conversation” pointing to the creation of new knowledge located outside of any of the contributing perspectives, which only became visible through their interactions.

Further illustrating Janine’s commitment to working in ways that ensure goals remain both clear and adjustable, Janine comments:

The [1-, 3-, 5-, 10-year] *goals* are about the working of the institution and the extent to which we are clear about our internal aspirations and clear about the ways in which we believe that this institution and the experiences that it provides are extraordinary. We also need to be clear about what it takes to continue to push that because it can never be set in stone, and we need an agreement that that's the case. Because when I think about Prestigious University, I don't think there's a lot about their *model* that they're questioning. They may be questioning do we have exactly the right chair of the Bioengineering Department and is that person doing the most innovative things—but not the overall model. I think it's important for us to agree that that's a principle we adhere to. And then how do we want to adhere to that and how does it serve the larger goal, which is providing the education that we all agree is maximally valuable. And what are the components of that education. (IDI2:161)

In this excerpt, Janine points out that she strives to not only maintain this kind of relationship to her own goals (as illustrated in preceding paragraphs), but also promote it at the institutional level (as described in this excerpt). Specifically, she insists in the excerpt that while the community needs to create a shared understanding of its internal aspirations and differentiating features of its model (the “components” of a “maximally valuable” education), the content of that understanding should be considered a milestone in a sanctioned process of continual reflection and renewal (“can never be set in stone, and we need an agreement that that’s the case...that that’s a principle we adhere to.”) In the following sections, I talk about some of the ways that she models and invites this kind of dynamic relationship to goals.

MULTI-YEAR TIMELINES AS A WAY OF THINKING.

Janine specifically charges the community with developing goals against 1-, 3-, 5- and 10-year timeframes. By doing so, she helps institutionalize a long time horizon for their shared thinking, and encourages the practice of applying more than one lens to the process of evaluating organizational goals and activity. At the same time, she cautions the community against thinking too rigidly about the contents of the goals being established. For example, in the February Board meeting she asserts “The primary danger of five to ten year goals is that people feel they are set in stone,” and then half-jokingly she adds “That’s why I made [the large goal matrix] deliberately unprintable” (OBS:J1-11). With this comment she emphasizes her view that goals should be stated clearly, but advanced dynamically, with adjustments being made as learning takes place and conditions shift. Earlier in that same meeting when she first presented the goal matrix to these trustees, she commented on the tiny, virtually unreadable font used on the slide, emphasizing that she wants to use the slide primarily to highlight the process used to develop the goals; although she also encourages the Board to review the contents at a later time and share any feedback they may have. Through these moves she not only models, but invites others to join her in placing as much value on the process used to generate the goals as on the goals themselves.

Similarly, Janine makes clear in each of the (three) meetings where I see her speak to these goals, that there is nothing magic about the particular year markers she selected, although at one point she does mention that these are standard timeframes often used in organizational planning (a “psychologically spacious” (Berger, 2012) move which adds credibility to the process for those viewing it through a less complex lens). In fact, Janine explicitly invites the community in each of the meetings I observe to think of these particular timeframes as proxies for a more general set of yardsticks—such as, immediate-, mid-,

longer- and long-term. Here she invites the community to co-construct not only the content of the goals situated in multiple timeframes, but the boundaries of the timeframes as well.

In one faculty meeting I observe, after Janine presents the ten-year goals developed through the process above and explains how they are thinking of these goals “not as hard and fast, but as a way of making collective sense of where we are going” (OBS: J6-15) she explains to faculty,

We mapped out our goals on these different timelines—short, mid, long—as a way of thinking through “What would it look like if we set x goal?” and then getting a sense of what it would take to move toward those goals. Then we asked, “Are we structured to get there?” and it became clear the Board was not. (OBS:J6-15)

Here, Janine publicly explains how she uses the goals as mechanisms for promoting, among senior leadership, certain ways of thinking together about the relationship between the current realities characterizing the institution and different possible futures they might envision for themselves. Thus, she authorizes new options for action including both thinking bigger, and thinking more collaboratively, about what’s possible. Her language “what would it look like if we set x goal” points to an iterative process in which different alternative futures are considered, and evaluated with reference to changes that would be required to move the organization in that direction. Here again, we see how she uses the goals to support a particular, more expansive way of thinking together, which process supports the co-construction of both the goals themselves, and a shared frame for thinking about what is required for the organization to move toward them.

ENGAGING THE COMMUNITY IN (RE)POSITIONING THE INSTITUTION.

Another major activity that Janine undertakes, which falls under the ‘strategic planning’ umbrella is development of a market positioning strategy. Although Janine initiates this activity on a “parallel track” (IDI2:136) to the goal setting work, she describes these two

work streams as “dovetailing” (IDI2:118). Specifically, she views them as mutually informing elements of a process aimed at creating a “larger vision” (IDI2:148) of College as an institution, and as a meaningful contributor to adaptive shifts in higher education and twenty-first century society. This larger vision, she feels, will inspire people internally, and externally, to engage in the kinds of adaptive work needed to clarify, advance, leverage, and evolve College’s progressive education mission.

Janine’s decision to prioritize the market positioning work incorporates multiple considerations. First, as described in the environmental snapshot, she recognizes coming in that the College needs to increase enrollments if it hopes to thrive. Generating a clearer understanding of the particular niche College fills or could fill in the market, seems a critical element in a process of attracting both more students and more funding. Also, Janine describes how she learned through her early engagement with key constituencies that

the community needed more tools and language to enable them to relate their own experience to the long arc of the experience of the College education and the institution, not just their experience in it, and to understand the ways in which the nature of the institution enabled their extraordinary experience. (IDI2:156)

Finally, she recognizes that College’s deep experience providing liberal arts education grounded in principles of integrated education and self-directed learning hold potential as an important source of knowledge for adaptively shaping larger dialogues and inter-institutional experiments exploring how to best reap the unique value of these educational approaches. This potential, she realizes, could be tapped most effectively through deliberate reflection (e.g., outcomes discussion described earlier in Line of Work #1; goals process described above) and more consistent and compelling articulation of the key principles underlying College’s philosophy and approach (positioning strategy).

Janine's attention to the question implicit in this line of thinking (What is our place in that larger process, and what should it be if we hope to illuminate the larger reality it reflects?) is another quintessential complex-thinking query. Janine, like my other participants, acts in ways that are aimed at answering questions about how her part of the system fits into some larger picture, which picture is both partially determined by her part's perspective on and contribution to it, and partially underdeveloped in terms of collective understanding of it, and thus represents an opportunity for her part to contribute meaningfully to evolving the whole—in ways that benefit more of the people affected by that whole (not just her part). Just as Harold wants a place for university system at the performance funding table because he believes his state's situation is unique (and, thus, can inform understanding of the whole), so does Janine want a place for College at the integrative education sector table because she believes it can contribute needed insight to this conversation (and burgeoning movement).

Janine hires a consulting firm to work on the positioning strategy. When I ask her how her team chose the firm she replies, "It had to be somebody who 'got us' but was also willing to push us really hard. There has to be a spark of love there and interest, but not so much love and interest that they can't see" (IDI3:864). In this comment she confirms that she was not looking for an expert who could provide her with answers, but a knowledgeable contributor to her team's process of answering the questions before them ("push us really hard"). She wanted someone who understood their unique situation ("got us") and shared their values ("spark of love and interest"); but demonstrated sufficient thinking complexity to remain differentiated from those values and able to engage in critical reflection informed by, not wholly subject to those values.

It's unclear from my vantage point on this project which aspects of the consulting firm's process are driven by that firm's consulting model and which are informed by direction provided by Janine and her staff. As such, I do not comment on the content of the strategy or the process used to develop it, except as needed to support other aspects of my analysis. However, I did have several windows into the way that Janine communicated this strategy to key constituencies within the community, and thus focus my interpretation there.

Janine emphasizes in multiple presentations to the Board and faculty that the language and branding recommended by the positioning firm should not be applied uncritically, as if it represents some predetermined solution to the question of how to best develop and articulate understanding of who we are. She makes this point many times and in multiple ways in various presentations I observe. For example, she asserts that the positioning strategy "is not a tagline, advertising, or required vocabulary" (OBS: J4-8); "it won't show on all the folders" (OBS: J4-10); "it doesn't become advertising or a TV campaign" (OBS: J7-28); "there's not a specific vocabulary, say this or that" (OBS: J7-30). Rather, she says, it should be thought of as a "center of gravity" (OBS: J4-10); "a central idea" (OBS: J7-30); language and tools for "framing who we are and what we do" (OBS: J7-28) and for developing a "forceful articulation of self [that is] aspirational" (OBS: J7-32). She also calls it a "frame that they [alumni, students and others] can hang their work within"; and a "way of thinking about the relationship between institution and experience" (OBS: J7-30). She makes these ways of interpreting the strategy more concrete by sharing stories about her experiences talking with students, alumni, and parents, who, in the large majority of cases, tell inspiring and animated personal stories about ways in which College transformed their lives, but struggle to explain what it is about the institutional model that made those experiences possible. She explains that the language and central ideas provided by the

positioning work should be thought of as a “way of bringing together distinct experiences to explain the larger arc of what’s possible” (OBS: J7-34) or “a way of talking about College to audiences beyond the target audience” (OBS: J4-8).

Within these descriptions we see several complexity footprints. First, Janine firmly co-locates authority for constructing the institution’s identity (and accompanying story) within herself and the community. Her part comes from her investment in this process and sanctioning of the particular language and central ideas provided by the consultants. The community’s part comes from the charge that they find new ways of thinking and talking about the institution and their experiences of, and within it, that meaningfully apply or connect in some way to the central frame and shared language she has sanctioned, while retaining authenticity as representations of their unique experiences and perspectives. She asserts to faculty that the strategy “exists in the executions - walking the walk - big things - small things” (OBS: J4-6), reminding them of the moment-to-moment opportunities that exist for engaging in such interpretations. In addition, when Board members (in a different meeting) raise concerns that the central idea in the positioning strategy might be misconstrued in various ways, she emphasizes, “It’s all in the execution. We need not promote that [misconstrued] meaning. Storytelling will bring it to life” (OBS: J7-38). Here again she places responsibility for advancing the positioning work in the laps of those who are using it – members of the community. Incidentally, the fact that Board members raise critical feedback in this public meeting speaks, in part, to Janine’s receptivity to such feedback, which she continually signals by inviting and engaging with it. Notably, not all feedback on this or other presentations of this material are critical. Other comments I heard include: “That was an astonishing presentation” (OBS: J7-36); “Incisive, authentic presentation” (OBS: J7-38) and “It feels real. It doesn’t feel like a gimmick” (OBS: J5-4).

Further emphasizing the need for community members to contextualize their stories and thoughtfully translate the central positioning ideas, as needed, to connect with specific audiences (e.g., advising students, collaborating with external colleagues), Janine remarks, “We should be telling zigzagging stories as much as clear arc stories” (OBS: J7-36) and “We need to attend to generational differences. For example, millennials don’t expect to have one job or line of work that lasts a whole career.” (OBS: J7-36). Thus she consistently models, invites, and offers examples of how the community might combine the frame and language offered by the positioning strategy with other lenses appropriate for the situation (e.g., who they are talking to, particular experiences they are relating) to continually add to a growing field of *accounts of us*, from which can emerge a new institutional narrative that is equally reflective of its essential elements in all their diversity, and its overarching principles as reflected in the arc of the intersections of these elements.

Another facet of complexity evident in Janine’s presentations of the positioning strategy is her practice of delivering her core message using a variety of mental models and entry points, including: multiple metaphors capturing some aspect of what it is (“frame,” “spine,” “central idea”), statements about what it is not (“it’s not a tagline, advertising, or required vocabulary”), personal stories about how she imagines applying it, and emphasis on the community’s role in the process. In other words, she deliberately applies multiple lenses on reality and, by doing so, offers numerous entry points for listeners to join her in thinking about these ideas in ways that hold meaning for them, without demanding that their thinking conform to any particular predetermined model. Thus, she suggests that the real positioning work lives in the spaces between these many ways of thinking and talking about the institution, and can only be accomplished through the community’s collective efforts to interpret and apply this strategy in ways that are micro-situationally authentic, and macro-

situationally consistent and compelling. Just as Harold sought to preserve autonomy and strengthen the unique contributions of the colleges to the system while engaging them in ways aimed at co-constructing new possibilities for the system, so here does Janine seek to preserve the autonomy and strengthen the unique contributions of the community members' co-constructions of college identity and story, while engaging them in ways aimed at co-constructing a more compelling and twenty-first century relevant story. As I describe in the next chapter, Sherry takes a similar approach in her efforts to create interdisciplinary workgroups at her College.

Chapter Summary

Once again, before moving into the summary I remind the reader of the scope of detailed analysis presented in this chapter to be summarized in this section (see Table 18).

Table 18. Scope of Analysis by Entry Point for Janine’s Case.

Entry Point	Scope of Analysis
<i>Major Finding</i>	Moving between, engaging & interconnecting multiple internal & external constituencies, Janine encounters a series of <i>critical ambiguities</i> that she interprets as value-reality gaps & addresses through context-attuned, decisive & creative actions that flow from a convergence of priorities & create conditions for emergence of strategically aligned, community-defined outcomes.
<i>Lines of Work</i>	FOCAL DOMAIN: INSTITUTIONAL DEVELOPMENT • Clarify & advance mission of whole student development. • Increase enrollments, endowment, & social impact.
<i>Key Strategies</i>	• Engage & reorient the community. • Co-construct goals then dynamically interpret them in locally relevant ways.
<i>Adaptive Challenges</i>	CRITICAL AMBIGUITIES • Community wrestles with unanswered questions about the nature & success of whole student development (the ‘unfinished experiment’ in progressive education). • “Solar System” leadership culture requires shift toward new, more adaptive model. Visions of this more adaptive model are yet to be crystallized. • Community lacks shared narratives about, and formal articulations of, the nature of College educational experience and its particular value/relevance in twenty-first century.
<i>Action Scenarios</i>	• “Giving the work back” to College staff • Response to student manifesto on coal divestiture • Strategic planning process including: ◦ Emergent outcomes ◦ Shared, multi-year goals ◦ Market positioning strategy

In this chapter we see Janine engaged in dynamic, far-reaching activities aimed at enlisting the extended College community in progressing two lines of adaptive work in the institutional development arena (see Focal Work Domain). First, we see her helping the community take up the difficult task of clarifying and advancing the mission of whole-student development, which lies at the heart of the institution’s progressive education model (see Line of Work #1). Second, we see her engaging the community in an interconnected set

of strategic initiatives aimed at increasing enrollments, endowment, and social impact, at a time, she believes, when College's integrative model holds particular relevance in the broader higher education landscape (see Line of Work #2).

We see how, in the process of carrying out this work, Janine uses two overarching strategies informed by complexity, both of which involve enlisting the community in co-constructing artifacts and processes that help them collectively uncover ever larger, more locally and-globally relevant understanding of the issues, and ever more aligned and sustainable action alternatives. First, we see her working with different constituencies to engage and reorient them, which involves joining them in thinking about the specific goals and passions they hold dear, while at the same time helping them situate these concerns in broader frames of reference informed by larger shared values, external reference points, concrete illustrations, and convergent dynamics, many of which emerge, or are drawn by Janine, out of the process of engagement itself (see Line of Work #1, Key Strategy). Also, we see Janine orchestrating co-construction of goals and mobilizing participants in all corners of the community to concretely articulate, dynamically interpret, and continually re-evaluate these goals in the face of new learning gained through local experimentation and attention to shifting dynamics (see Line of Work #2, Key Strategy).

We also see how, in the process of carrying out the two lines of adaptive work above (and in part determining these priorities), Janine diagnoses a number of adaptive challenges which, as she describes them, take a form that I call critical ambiguities. These are aspects of shared reality that Janine finds the community attending to in ways that are too unconscious, uncritical, or autonomous. In each case, Janine determines that part of the learning required by the community involves gaining a more reflective, dynamic, shared understanding of these elements, and then applying this crystallized understanding in ways that guide

collective action. The first challenge we see her uncover is related to unanswered questions about the nature and success of whole student development, which questions persist despite the College's multi-decade 'experiment' applying a progressive education model. The crux of this challenge, as she defines it, is not the questions themselves but the overly abstract and personalized way in which these questions are held by the community (see Line of Work #1, Adaptive Challenge 1). The second challenge we see her define is the solar-system leadership culture and work model in which leadership attention is overly drawn to ideas and initiatives emanating from the center (the president) and other leaders move in seemingly fixed relationship to that center (those ideas). She feels a more dynamic, multicentered leadership model is needed and locates the necessary learning in both the process of understanding what that alternative might look like, as well as in how it might be enacted by her team (see Line of Work #1, Adaptive Challenge 2). The third challenge we see Janine articulate is the lack of a shared narrative about the nature of the educational experiences provided by College and the relevance of these experiences, and this model, for addressing twenty-first century needs within higher education and society. While Janine mentions being drawn to this community, in part, because it is interested in these very questions, she locates the required learning in the process of approaching these questions through more reflective, visible, and collaborative processes that can be leveraged to guide more adaptive and impactful institutional action (see Line of Work #2, Adaptive Challenge).

Leveraging her capacity for complexity, Janine remains attuned to these broad aims and assessments as she carries out specific decisions and actions on the ground, as needed, to advance this adaptive work. For example, in the first action scenario we see her define meeting interventions (reframing admissions, reframing student conduct discussion) and broader institutional initiatives (outcomes discussion) aimed at helping the community

situate specific decisions and projects they are tackling (or should be) in larger frames of reference (See Line of Work #1, Action Scenario 1). In the second action scenario we see how she integrates efforts to enact and evolve understanding of how to integrate students' out-of-class experiments with their larger learning trajectory (a tenet of whole-student development) with ongoing institutional processes aimed at more critically reflecting on its institutional investment management relationships. Specifically, she takes unconventional action at an opportune moment to create a temporary holding environment in which protesting students can consider their adaptive goal (institutional divestiture from fossil fuel investments) in a larger frame of reference that both incorporates and complexifies that goal (Line of Work #1, Action Scenario 2). Finally, in her approach to strategic planning, we see her honor and apply multiple frames of reference to entice all members of the community to co-construct strategic goals on multiple timelines. We also see her give primary emphasis to engaging in reflective, collaborative process as a means of promoting emergence of needed, yet-undetermined goals and strategies. In addition, we see her communicating the positioning strategy in ways that simultaneously demand attention to shared values and language, and motivate authentic local interpretation and expression of these values (Line of Work #2, Action Scenario).

Stepping back, we see a number of threads running through Janine's activities, highlighting the way in which she draws on complex thinking to understand and approach her adaptive work. Specifically, we see her applying awareness of the constructed nature of reality to continually draw attention to, and expand the frames of reference that she and others bring to situations. We see her seeking and drawing connections between seemingly disconnected ideas and initiatives, and engaging others in attending to dynamics that will help them do the same. We see her maintaining a shifting relationship to dynamics of

convergence and emergence, allowing the interaction of these processes to guide direction of thinking and outcomes. We see her continually demand concrete articulation of ideas, such as in the form of shared narratives, outcomes, strategic goals, and enrollment matrices, to facilitate shared reflection and learning. Finally, we see her take creative, decisive action in the face of uncertainty, using the process of moving through questions to answer those questions, and allowing for mid-course corrections by holding goals as simultaneously informative and adaptable (see also Chapter 7).

As in Harold's case, here again I draw into the table below, examples from across the case to provide a snapshot of how Janine uses some of the specific forms of complex thinking defined in the literature (see Table 19). I repeat the reminder that this table should not be considered a comprehensive review of all forms of complex thinking used by Janine, nor mistaken to suggest a linear relationship between the exercise of specific forms of complex thinking and specific actions in the world. Rather, it is provided to direct readers' attention to different sections of the case they may want to revisit to examine how Janine's uses of these different forms of complex thinking contribute to the larger set of dynamics shaping her understanding, decisions, and actions, as discussed in the case.

Table 19. Sampling of Case Elements Illustrating How Janine Uses Different Forms of Complex Thinking That Scholars Have Associated With Tier-Three Levels of Thinking Complexity.

Form of Complex Thinking	Janine's Uses in Adaptive Leadership Practice
<i>Dialectical thinking</i> Basseches, 1984; Kegan, 1982; Nisbett, 2003	- Views development of College strategic goals & direction as interdependently related to development of sector, seeing shared (respectively partial) understanding of the value of progressive education as leverage point for sector-transforming dialogues. - Uses metaphor of the “stochastic graph” to describe how she grows shared understanding among staff through a process that moves through points of equilibrium in a larger arc of change. Also an example of metaphorical thinking. - Uses the “principle of contradiction” (Nisbett, 2003, 175) to clarify what she does not mean, thereby making clearer what she does mean (e.g. says of positioning strategy “is not a tagline, advertising, or required vocabulary”)
<i>Use of external reference points</i> Kegan & Lahey, 2016	- Concerned with “reading widely enough and paying attention to enough media streams, just being exposed enough to what’s going on out there” - Brings in Peer College president to facilitate strategic goals conversation. - Encourages staff to learn more about foundation Board goals for higher education reform as reference point for defining funding priorities in written proposal.
<i>Goal reflexivity/ Double-loop learning</i> Torbert, 2004; Kegan, 1994	- Engages community in developing strategic goals on 1-3-5-10 year timelines; sees both contents and year-markers as adjustable based on learning. - Amidst efforts to define an appropriate institutional response to student-conduct incident, which efforts are largely aimed at determining how to send the student home and manage associated complications, she reframes the dialogue by proposing a different goal “What if he stays?” - Following Board discussions exploring the ethics of certain endowment allocation strategies, introduces concrete financial model to shift the goal of the conversation to resolving more locally relevant, still ethically informed, endowment-related dilemmas. - Sees strategic goals as necessarily emerging from good process; allows entering goals to be adjusted and evolved as new insights are gained through exchange of ideas
<i>Metaphorical thinking</i> Torbert, 1989; Nicolaides, 2008 , 2015	- Uses more than one metaphor to clarify a single idea. This offers multiple entry points for connecting with the idea & locates the idea outside any single way of thinking. (e.g. calls core positioning message: “frame,” “spine,” “central idea”) - Explaining to community how it might understand and use the positioning strategy, suggests they think of it as a “frame to hang your experiences in” emphasizing the blend of shared (frame) and locally interpreted (your experiences) elements. - Describes process of naming the shape of different narrative threads she sees running through staff conversations as seeing form of “stars in a constellation” - Describes, and publicly names, current leadership model as “solar-system model” and enlists staff in helping identify and move toward alternative model.
<i>Seeing connections</i> Kegan, 1994; Torbert, 2004	- Proposes hospital-College partnership as convergent solution to loosely connected, open questions about student health, community relations, and use of physical space. - Connects students’ efforts to promote more socially responsible institutional investing to ongoing process for evaluating investment manager, and larger questions about how to integrate student learning inside and outside the classroom.

Chapter 6.

Portrait of Sherry Practicing Adaptive Leadership on the Ground

“I have to reframe that narrative”
—Sherry (SOI:429)

“We need to be ready”
— Sherry (IDI1:216)

“Symbolic involvement is very important”
—Sherry (OBS: 4-18)

“I just need to read the tea leaves a little bit”
—Sherry (IDI2:301)

“I’m constantly having to ‘feedback loop’ that”
—Sherry (IDI2:799)

“Align trajectories so when we put in work
its pointed in the same direction”
—Sherry (OBS:1B-33)

“I’m so grateful to Sherry for bringing us together and
creating the spaces for us to reconnect with why we came here and
what we love and our identity as scholars.”
—Faculty Chair in STEM workgroup (OBS: 1A-11)

Stage Setting

Introducing Sherry *at work*.

The grand carpeted hallway leading to Sherry's office is flanked with a rich and varied collection of artwork. As I head to my second interview with her, one unassuming piece catches my eye. At first glance it appears to be an abstract print or painting. Charcoal grey on white, the multicentered subject sits atop a once blank canvas. Emptiness transformed into a meaningful something through intention. A muddling of lines, layers, and shapes draws me in. I see beauty and meaning there; and echoes of history. Is it a painting? An original for which the artist applied each brushstroke in its own time and place? Or is it a print: created through some mysterious (to me) process not directly evident in the finished work? The ambiguity draws me still closer.

I notice that the amorphous figure resembles a cluster of wires and fuse boxes joined atop a tall telephone pole; a critical node in what I imagine to be a larger network connecting people and places across yawning distances. With historical context shared by Sherry in mind, I'm reminded of the once thriving, now struggling, soon to be reinvented communications program at her College; and of the latent possibilities, both harmful and healing, animated by the constructed nature of meaning, identity, and community. I become present to the ways in which such possibilities become manifest through the actions of those who are awake (like Sherry), or not, to these aspects of our shared reality. The pole on the canvass stands slightly askew. Is it a clue to the perspective of the artist? Is it a hint of vulnerability hidden beneath a strong and stable facade? Seen through this lens the cropped top of this critical hub of connectedness seems ever more meaningful as a symbol of strength, longevity, and community in a time of great possibility—or peril.

The hour of our scheduled interview arrives and I head into Sherry's office suite. A commanding presence, Sherry emerges from her office and moves warmly and gracefully toward me. The nervous energy I typically feel before an interview is quieted. The daunting task of making sense of my participants' stories, of Sherry's story, seems suddenly more possible, though no less scary. It seems more necessary, though no less obvious. Drawing me into this field of calm, Sherry accompanies me to her office and we continue our co-inquiry into her lived leadership practice.

Sherry leads adaptive change from the vantage point of Dean of Arts and Sciences at a nationally ranked, regionally accredited liberal arts college. The College annually enrolls close to 2000 undergraduate women in four-year bachelor of arts and bachelor of science degree programs run out of the Arts and Sciences School within the College. In addition, the College enrolls double that number in co-educational graduate degree and professional certification programs across its five schools, which include the Arts & Sciences School and several smaller professionally oriented schools. The College is favorably ranked among its peers in the region and several of its professional programs have earned top rankings at the national level. Embracing its feminist roots, the College prides itself on developing self-directed learning and leadership capabilities in all students. Undergraduates are required to complete one or more independent learning experiences, such as internships, fieldwork, research or independent studies. In addition, the College offers small class sizes and places strong emphasis on student mentoring by faculty and student peers. Many faculty identify strongly with mentorship aspects of their role and some have found innovative ways to link undergraduate students' independent research and leadership development trajectories to their own professional research agendas. Virtually all of the College's 200 plus full-time

faculty hold doctorate degrees and several have earned international renown. An additional 200 part-time faculty fill out the faculty corps.

The College is located in a thriving urban center, home to more than a hundred colleges and universities. While the strong higher education sector draws many to the region, it also brings strong competitive pressures, a reality, Sherry explains, that became painfully apparent during the most recent national recession. She describes a drastic organizational shake-up that took place approximately two years ago in response to this and related pressures. Persistence of the College's favorable ratings through the present day is testament to the ongoing commitment of faculty and administrators to delivering high quality educational programs and outstanding student services, despite such recessionary artifacts as equipment shortages, community fractures, and campus-wide tightening of belts. A particularly large freshman class entering in fall 2015 reflects, in part, recent and ongoing efforts by senior College leadership to pursue a more adaptive and intentional growth strategy aimed at better marrying the institution's core values with new ways of operating that more fully embrace the realities of today's environment.

Sherry holds administrative responsibility for all aspects the Arts and Sciences School, the largest and most diverse of the schools comprising the College. She directly manages a staff of four administrators, a team that was downsized in the recent shake-up and, as I describe later in this chapter, very deliberately rebuilt by Sherry in the wake of this event. Working collaboratively with this team, and with her faculty department chairs, she provides administrative oversight and support to approximately sixty graduate and undergraduate programs and roughly seventy Arts & Sciences faculty and staff, who are devoted to carrying out the work of those programs. Like her office staff, the larger Arts & Sciences employ was downsized in the recent shake-up. Even so, the Arts & Sciences

administration-to-faculty ratio is lower than her peer schools at the College, further amplifying the need for creative approaches to managing limited resources. Like most administrators, Sherry also serves on a variety of academic and administrative committees, some of which carry considerable responsibility and limited authority.

Focal work domain: Broader enactment of interdisciplinary values and associated foundational work

Similar to the focal domain for Janine's case, the focal domain for Sherry's case evolves over the course of my work with her. During her first in-depth interview, Sherry describes several lines of adaptive work that she is currently engaged in, or in the process of carving out for herself and those she is working with, in service of advancing the community and its parts toward the values they share. Among these are the following three, which we agree to at the end of this interview as the focal challenges to guide my observations in the field:

- (Re)building a Master of Communications Management program as it returns to the Arts & Sciences School after faltering in its new home, creating a Master of Public Health program, and working with an online partner to provide national access to both.
- Working with faculty to encourage more interdisciplinary initiatives (particularly as this work dovetails with the other two lines of work mentioned here, or as it relates to the larger strategic planning process that is underway at the College level).
- Understanding and addressing challenges associated with admitting an unusually large freshman cohort, including ensuring quality of their educational experiences and implementing best practices in retention.

In subsequent months I have the opportunity to observe Sherry working in the first two of these areas, developing two new online master's programs and encouraging more interdisciplinary approaches. During our second interview, we agree that I will focus my analysis on one or both of these areas, possibly broadening the first (online master's programs) to incorporate broader efforts underway to migrate academic programs and operational processes to an online platform. Both of these lines of work continue to develop over the course of the study period, represent substantive areas of Sherry's focus, and appear as salient threads in the data.

As I move through the process of coding and analyzing the data, strive to make sense of it through haiku and other integrative processes, and engage in various forms of triangulation, two lines of work emerge as both (a) substantive illustrations of the way Sherry more broadly understands and approaches her adaptive work, and (b) areas in which my data provide good visibility into her use of complex thinking to carry out this work. One of these lines of work, her effort to illuminate and reanimate the value of interdisciplinarity, relates to the second bullet defined above. As I later explain, interdisciplinarity is foundational to Sherry's College; however, while this value is shared by many in the community, it exists in tension with more normatively reinforced, competing values and is largely absent from institutional narratives. I define and discuss this aspect of Sherry's Practice in Line of Work #2 below. The other line of work (Line of Work #1) reflects critical foundational work Sherry carried out in the years prior to our engagement, which she describes during our interviews and artifacts of which are present or mirrored in the various meetings I observe. As I explain later on, the outputs and artifacts of this first line of work become an attractor, foundation, symbol, and model for subsequent adaptive work.

Case Findings: How Sherry Uses Complex Thinking to Understand and Approach Her Adaptive Work

Major finding: Standing in the eye of an extended organizational upheaval, Sherry works to address multiple, intersecting identity fractures through intentional, symbolic, context-attuned actions that both embody and enable deep learning, mutual-trust, and sustained commitment to larger shared goals; thus she engages the community in a process of readying itself for an uncertain future while shaping the very fabric of what is true, possible, and likely.

Narrative description of major finding.

As Sherry moves through and describes for me her leadership activities in different situations and settings, many shaped in some significant way by past or pending waves of restructuring at her College, she holds a very fluid and reflective relationship to her own and others' constructions of time and identity. In her stories and leadership contributions, she frequently shines light on the constructed nature of reality and the ways in which College constituents' individual and collective perceptions of the truth, as well as examined and unexamined aspects of their separate and shared realities, mutually define and continually reshape each other – often in unacknowledged ways. She notices, for example, when constructed narratives are experienced as being out of sync with lived or enacted realities; when shared narratives from the past are carried into the future unchanged despite the shifting form of the landscapes they describe; and when certain groups or individuals' constructions of what is or might become true are acted upon in ways that bring into being, for better or worse, the very realities they conjure, or (in the case of 'for worse') threaten to do so if not intentionally countered.

I use the term *identity fractures* to refer to gaps that Sherry perceives between the ways in which individuals, groups, and institutions (or parts of institutions) define their own identities, communicate those identities to others (e.g., through language & actions), have their identities interpreted by others, and have their identities talked about or otherwise publicly shaped by others. Table 20 below provides a summary of the identity fractures Sherry encounters with respect to different segments of the Community.

Table 20. Sampling of Identity Fractures Diagnosed by Sherry.

Community Segment	Identity Fracture
<i>Dean's identity fracture</i>	Senior leadership actions and associated other-constructed narratives create mismatch between perceived and actual leadership capabilities demonstrated by Sherry and her team; symbolically affects others in the community who share elements of her identity (e.g., women of color).
<i>Faculty identity fracture</i>	Leadership actions (e.g., shuffling of academic programs; exclusion from strategic planning activities) signal leadership views of faculty that conflict with faculty identities as valued scholars who can contribute to shaping the institution.
<i>Arts & Sciences School identity fracture</i>	Lack of School mission blocks shared understanding of the institution's core values and defining principles for guiding strategic change; In absence of mission, some construct School identity in ways that draw too heavily on past language and conceptualizations.
<i>College identity fracture</i>	College mission and other formal representations of identity use outdated language, underrepresent or over-represent current capabilities, and fall short as guideposts for shaping and storying of adaptive change.

When Sherry encounters these different identity fractures, she approaches them as opportunities to help the community make informed and intentional choices about which stories to believe, which to reject, and which to progress the community toward—based on more intersubjectively and objectively tested, and collaboratively constructed notions of the

truth. Willing to take personal risks, she pursues experimental courses of action, locates them in safe(r) spaces she identifies or creates where conditions, such as mutual-trust and co-constructed goals, allow for learning and collaboration. Through these and other kinds of actions she learns and models how our constructions of who we are and who we wish to become are available to be intentionally transformed and hold power as catalysts for shaping how reality unfolds. In other words, rather than seeking to align reality with a particular preconceived story, or create a story to communicate some preexisting reality, she moves between multiple domains of lived and constructed truth and timeframes, always with the question in mind – how can we bring greater integrity to both the community and its parts, while moving each/all toward greater realization of their visions of thriving.

Table 21 below provides for the reader a roadmap to the detailed findings that follow. These findings elaborate and illustrate the many ways that Sherry uses complex thinking to understand and approach her work, as holistically represented in this major finding.

Table 21. Roadmap to Detailed Findings in Chapter 6.

Focal Work Domain: Broader enactment of interdisciplinary values & associated foundational work			
Adaptive Work <i>aspect of thriving</i>	Key Strategy <i>using complexity</i>	Adaptive Challenges <i>value-reality gaps diagnosed</i>	Action Scenarios <i>actions & artifacts</i>
Line of adaptive work #1: Rebuild & re-energize the Arts & Sciences School after first wave of “seismic” organizational upheaval.	Develop multilayered network of strategic relationships founded on mutual trust and collaboration. <i>Note: becomes attractor, foundation, symbol, and model for broader adaptive work in Line 2.</i>	1. Other-constructed narratives create mismatch between perceived and actual leadership capabilities. <i>(Sherry’s identity fracture)</i> 2. Massive reorganization and widespread layoffs have left many feeling overworked, underappreciated and anxious. <i>(faculty identity fractures)</i>	1. “Cracker jack team” (shaping the long game from the opening buzzer). 2. Social media strategy (attracting collaboration via shaping of truth & telling). 3. Program director’s meeting (establishing conditions that promote deep, mutual learning).
Line of adaptive work #2: Illuminate and reanimate commitment to interdisciplinarity across the College community.	Create conditions that support emergence of new ways of thinking and acting, which embody and enable broader enactment of interdisciplinarity and collaboration.	1. Culture of competitiveness, isolationism and self-preservation thwarts a fuller embrace of interdisciplinarity. 2. Uncertainties surrounding current and future institutional identities widen fractures caused by historical events and hinder a wider embrace of interdisciplinarity. <i>(institutional identity fractures)</i>	Interdisciplinary STEM workgroup and concept paper (convening in safe spaces, building adaptive capacities, and shaping a more adaptive future).

Line of adaptive work #1: Rebuild & re-energize the Arts & Sciences School after first wave of “seismic” organizational upheaval.

Environmental snapshot.

Sherry explains to me that when she took up the deanship at the Arts and Sciences School, she did so at a time when the College, like many of its institutional peers, “had just come out of a financial crisis [and] had a lot of instability still” (SOI: 191). This made her

work challenging from day one, drawing much of her attention to the largely adaptive work of managing the shifting priorities and deep anxieties of the people who reported directly or indirectly to her, and helping others do the same. In addition, Sherry explains, she spent considerable time managing budget cuts and directives, developing contingency plans and process workarounds, and otherwise helping staff and faculty continue to find creative ways to provide excellent education and research outputs despite the cumulative challenges associated with operating in this mode for a sustained period.

Adding to this already complex environment, approximately two years into her tenure (and approximately a year and a half prior to our first meeting), there was a broad organizational shake-up affecting all schools within the College. Sherry describes this incident and its aftermath as a “major reorganization” (SOI: 10), “a pretty enormous thing” (SOI:23), a “seismic event” (SOI: 6), and “a period of instability here at the very least” (SOI:74). Many people were fired, programs were shuffled within and among schools, budgets were reconfigured, and tenure decisions were delayed. As part of the shake-up, significant graduate and undergraduate programs and parts of programs, were moved out of the Arts and Sciences School and into to other schools. In addition, Sherry was told to fire people she didn’t believe should be fired and to eliminate positions in her already understaffed office. As I describe later, the effects of these changes on Sherry and others (as perceived by Sherry) ranged from shock, rage, and other forms of extreme emotional distress to more generalized disengagement and disorientation. This first wave of upheaval drove many people out of the organization, some willingly and some not. Sherry explains, “people started leaving because they said if [this can happen] to Sherry, and we know what kind of person she is, what does that mean for us? And I had people say that directly to me” (SOI:68). Sherry thought she might be among those driven out, but when no explicit move

was made to fire her, she dug her heels in and very deliberately took up the adaptive work of rebuilding her School and reputation, thus providing a much needed foundation for future strategic work.

Although it's likely that these events were interpreted in many different ways by the people initiating and affected by them, for the purposes of this research I present only Sherry's understanding the situation, as that is the focus of my study. This perspective holds validity as an authentic representation of Sherry's views, and, since she tends to seek evidence and external feedback for her interpretations, as is the habit of all three complex-thinking leaders in this study, we might assume (but cannot empirically support) some degree of external validity as well. However, the 'truth' of how the reorganization unfolded, and why, is not needed to explore how Sherry exercises complex thinking to understand the events, diagnose the adaptive work, and carve out a way forward.

Key strategy using complexity: Develop multilayered network of strategic relationships founded on mutual trust and empowerment.

One of the primary leadership strategies Sherry describes, and I observe her using to reassert her integrity as a leader and reorient her school's role at the College in the wake of the first wave of upheaval, is a process of developing a broad, strategic network of relationships founded on mutual trust and empowerment. She takes up this work in a very thoughtful and multicentered way, using a variety of approaches aimed at healing identity fractures and otherwise creating conditions and capabilities that promote more widespread collaboration toward shared aims.

One center of activity within this relationship building strategy is defined by actions aimed at "healing" (IDI2:791), "therapeutic care work" (IDI1:610), and "repair work" (IDI1:14). This includes "acknowledging history, recognizing past contributions, crediting people with past work, acknowledging they've done a lot of labor that may or may not have

gone where they thought it was going to go, but that they're here because they've done that" (IDI2:801). It also includes

behav[ing] in ways that reinforce the fact that when I say I want to do this thing I do it or if I screw up on something I will tell you I screwed up. I'm going to be every step of the way transparent. And where I can't, I'm going to tell you why. Because I think that there has been so much distrust about flows of information and who is really telling you what and when the other shoe is going to drop. That I am constantly having to feedback loop that in anything that I do. (IDI2: 794)

Both of these approaches require Sherry to remain present to the ways in which people interpret current actions through historical lenses and thus draw symbolic meaning from these actions unless they are explicitly reinterpreted (such as through transparency) or noticeably counter-cultural (such as through acknowledging leader's mistakes and staff contributions). Another form of repair work she undertakes in the process of building a network of strategic relationships is the use of staffing and management strategies that very deliberately align the commitments and capabilities of all members of her dean's office staff with the values she seeks to move the larger community toward, thus providing a model and support for helping the community envision and embrace these ways of working.

A second center of activity within Sherry's relationship building strategy involves what Sherry calls "bridge building" (IDI3:982) or deliberately and strategically cultivating relationships with people and organizational units outside of her own School, leadership level, and discipline. Working this way is very counter-cultural within Sherry's College, and thus requires deliberate action on her part to initiate and manage these connections. One way Sherry does this is by "reaching out to people who I saw were kind of in crisis and trying to mentor without necessarily naming it that way" (IDI1: 648). She gives examples of how she has done this with women of color, with faculty and staff inside and outside of her own school, and even with senior College administrators. She explains, "those relationships

have also meant that if I needed to call someone up and say, could you help with x, they'd say yes" (IDI1: 702). Importantly, she not only draws informational benefits from these relationships, she contributes them as well. For example, she notes, "there are other people who I have a really good relationship with where it's just based on I have information I know can be helpful to them. I don't like to be proprietary. If it's going to help you, and I know it, I'm going to tell you" (IDI1:732). As this quote suggests, Sherry does not view cross-boundary relationship building as simply an instrumental means to advancing her own ends, although she acknowledges that is part of the mix. More importantly, she sees it as supporting her ability to contribute to advancing the aims of the College at large, by leveraging those relationships to strengthen her own organization's contribution to those broader aims, and by boosting others' capacities to do the same. Speaking generally to this point she explains,

For me, the unit of the institution is College. Then where I contribute to that is within my school...I'm very competitive about resources too. Totally. I want our piece to be bigger and, at the same time, I know that's not going to happen without doing things that benefit other parts of this institution. (IDI2:1005)

As did all of my participants, Sherry locates the shared values toward which the adaptive work is oriented at the center of the community defined by the larger system(s) of which her own organization (the School of Arts and Sciences) is a constituent element. She then cultivates dynamic capacity-building relationships in which efforts to strengthen the parts are oriented toward visions of strengthening the whole, and efforts to more directly shape the whole are pursued with the aim of further strengthening, and meaningfully diversifying the parts.

The third center of activity in Sherry's strategic relationship-building strategy involves a pattern of experimenting with different forms of power, even (or perhaps

especially) when it involves taking personal risks, operating outside her own comfort zone, and engaging in what seem (to her or others) to be counterintuitive moves. She talks about how her natural inclination and preference are to pursue a collaborative approach to most things. However, she learns over time, and through her experiments, to selectively incorporate more directive, unilateral forms of power as well, as a way of helping the community focus on the adaptive work it faces, providing a foundation for collaboration at other times or in other places, or supporting some larger collaborative strategy defined on a different timeline or with respect to different people (compared to the group and situation with whom she is exercising her authority more directly.)

Sherry admits that following the announcement that shook the foundations of her Arts & Sciences School,

I was worried that I would not be able to work with people here. Because the message had been presented, “Sherry screwed up.” So, how are they going to work with me? I saw a change in how people treated me—pretty quickly in some cases...I knew that I was going to have to rebuild relationships with people here and re-demonstrate that I am competent. Because now they wonder. (SOI:297)

As becomes clearer with the illustrations provided in the action scenarios for the first line of work, the way that Sherry addresses this personal identity fracture is not by simply telling a different story with her words, which she was tempted to do: “my first instinct was to defend myself...just right in the middle of the meeting get up and just confront her” (SOI: 350). Instead, she resists that impulse and uses the multicentered relationship-building strategy described above (among other strategies) to rebuild the capabilities, commitments, and collaborative capacities of her own organization, thus establishing its place as a critical contributor to the College’s wider mission and growth strategies, and transforming herself and her school alike into symbols, catalysts, and recognized leaders of adaptive change.

Adaptive challenges.

Adaptive challenge 1: Other-constructed narratives create mismatch between perceived and actual leadership capabilities (Sherry's leadership identity fracture).

The changes to the Arts & Sciences School announced in a community meeting as part of the College-wide reorganization took Sherry by surprise, and were storied in a way that signaled to Sherry and others that senior College leadership had questions about the effectiveness of the Arts and Sciences School and Sherry's capabilities as a leader. She recounts,

I was not aware of [the change] until the decision was being shared with the Board of Trustees. It was a follow up to a period of time when I was looking at some of these programs and trying to figure out how to make them more competitive; I had been given that responsibility. I had written a report that was going to be used for the next steps. Instead of there being next steps they moved [the programs]. (SOI:15)

I actually thought I was going to be fired. I left the meeting, went home, and called a lawyer and said, "I think I may have to pack up some boxes." I was very concerned about it because of what [was said about me in the community meeting]. The reaction that I got from people who reached out to me confirmed that they were all really worried that I was made the 'fall guy' for something that was not connected to me. Then I had to implement all these changes. (SOI:35)

As I mentioned earlier, Sherry's first instinct was to defend herself in the meeting where the sweeping changes were announced to the community. However, drawing on her knowledge of the organization and the people involved she decided that doing so would not resolve the fracture she had just suddenly and violently experienced. Thus, she decided instead to

do everything I could to counter that narrative at every possible moment, and to not break and to not let anyone see any sort of questioning or unhappiness. I had to be more resilient and more Teflon-like because I felt like I have to message that this is not going to affect me and that I am going to do my job. (SOI:366)

Notably, unlike someone whose coherence is maintained by meeting other people's expectations, Sherry does not interpret this message as a sign that she needs to change

herself to better match the story being told. Rather, she sees the broadcasting of this story as an act of creating a gap, a fracture, between what she knows to be true about herself (and has received enough external feedback to verify), and what this story constructed by others suggests is true. She says,

It was my ego and it was my identity as someone who had been hired to do this job and I believed that I could do it. I was thinking, “I can't let [other people] define my narrative. I just can't...I've got to figure out how to pull it out of my guts and come back.” (SOI:412)

She also sees the incident as simultaneously causing fractures, or potential fractures, for others within her organization who share different facets of her identity. In other words, she sees that the story being told about her could be interpreted symbolically, as representing also a story about what is true or (not) possible for others who are like her, other women of color. She explains, “I kind of felt like if I'm pushed out, then it could happen again. I don't scare easily even though that terrified me” (SOI:436). In other comments she specifically names women of color as among those whose identities might be symbolically fractured by these events.

Sherry's self-authored story of her capability remains intact. However, drawing on her complex-thinking capacity she recognizes the constructed nature of both her own and others' views of herself, and the symbolism that could potentially be attached by others to each, and thus sees the possibility of shaping all of these constructions (and reality itself) through actions that both embody and symbolize her own version of the story. Also, it's clear from the data as a whole that Sherry regularly seeks out and receives feedback from others at work, at home, and in her professional network outside the college, and engages in various forms of double-loop learning about her own goals and strategies (as illustrated by the action scenarios in this line of work). This suggests that she sees value in the process of continually transforming herself and her worldview in ways that better equip her to

effectively lead in different situations, in different settings, and under different conditions.

Her rejection of the feedback represented in this reorganization is conditional, based on her consideration of the specific factors, personalities, evidence, and symbolism of the situation, and does not appear to be a knee-jerk reaction to a threat to her self-authored identity.

Adaptive challenge 2: Sustained community distress with no end in sight (faculty scholar identity fractures).

College-wide financial belt tightening and evolving program and role definitions have left many staff and faculty within in the College community feeling overworked, underappreciated, and unsure of their place at the school and college. When Sherry arrives, she quickly realizes that the community has been carrying the weight of financial cutbacks for some time. She notes,

There's a kind of shared trauma that people have experienced from the real financial crisis that we were in, that was very significant - very significant... Also there were systems that were broken, and there are systems that don't really make sense for an institution in the time that we're in. They may have made sense thirty years ago, but don't make sense now. So, we've got a lot of infrastructure breaks - open cracks. You can't do the visionary work because you have to plug the holes. (SOI:639)

Early in her tenure, she finds herself mired in the process of navigating these anxieties while also trying to experiment with different approaches to advancing the kinds of 'visionary work' she came to do. In the process, she learns that these two kinds of work are connected. Part of her adaptive work, she realizes, involves helping the community learn new ways of managing anxieties, as well as evolving administrative workloads, and interpreting actions flowing from the financial crisis and exacerbated by processes of continuous change. For example, in the comment below she points out how habitual responses to change among faculty thwart her ability to engage this group in the kinds of adaptive work she believes are necessary to move the College forward:

There's been a lot of flux and change. I think that people experience a lot of anxiety in the midst of that kind of fluidity...The way that people respond is they get really rigid, because they need to have structure; they want to have something that's predictable. But that rigidity makes it difficult to do work that you need to do that's even vision building. What I have found in the past couple of years is that it's harder to move faculty to be excited about new things. (IDI1:22)

Her diagnosis of the situation further highlights how widespread and ongoing changes have created identity fractures for many faculty, who interpret the changes as a criticism of their work and a threat to their identity as academics. She explains,

I've had a lot of these conversations with faculty...there was a sense of, "What is my role now? How am I being evaluated now?"...Their time is being carved up in ways that they didn't think it would be and they're being asked to do more and more and have less time to be scholars. I think that the scholar part of their identity has been sacrificed the most for them...The symptoms are associate professors who have been associate professors for twenty years. Faculty whom I notice are starting to just give up. (IDI3: 549)

I think the interpretation is that the impetus to change is somehow a criticism of how faculty deliver on the promise. Not seeing that we have to change because we want to help you do that even better. I think the perception is, at least within my school, change is a knock. Change is criticism. So we have to hold on even more to the way we do things because that's very dear to us. We do really well by our students. Why aren't you all, not necessarily me, but why aren't you all seeing that? (IDI3:359)

While these fractures and frustrations predate Sherry's arrival, and significantly shape her early work, she describes how they became even more intense after the shake-up, when distress in the community reaches palpable levels. For example, she points out that in the immediate wake of the reorganization announcement:

- Many who were affected by the delay in tenure decisions felt unsure about their place in the future and began actively looking for other jobs.
- Other people were in Sherry's office every day crying, and on many days she herself went home at the end of the day and cried.

- There were rumblings among faculty of issuing a vote of no confidence for the president.
- Sherry received “really mean and nasty emails and communications from alums who thought I was the architect of a lot of these changes, because they didn’t know” (SOI:55).

Thus, while many Arts & Sciences faculty interpret the College administration’s actions as a message that they (the faculty) are not delivering on their promise of delivering high quality educational programs and research, these faculty also see the added administrative work, shifting roles, increasing workloads, and communication gaps brought on by these actions as the administration’s own failure to deliver on its promise to support the faculty in carrying out their work as scholars and educators. Sherry recognizes these gaps, seeks to help people better understand the partial quality of their truth, and enlists the community in shaping its own reality in ways that are aimed at helping all participants better deliver on their promises—and be recognized as doing so.

Glimpses of Sherry in action.

Action scenario 1: A “cracker jack team” (shaping the long game from the opening buzzer).

Describing for me how she mapped out a way forward for herself and her team after the reorganization announcement, Sherry explains, “I knew that I was going to have to rebuild relationships with people here. And re-demonstrate that I am competent because now they wonder” (SOI:305). One of the first sets of relationships she focused on was her own office team. Not least because she was face-to-face with their emotional distress and felt it necessary, and appropriate, to help them manage their reactions in a way that both attended to their needs as individuals and kept the important work of the office moving forward. In addition, when Sherry was told to fire several people in her office, and at least

one more chose to leave in response to the upheaval, Sherry saw an opportunity to rebuild her team in a way that would model and support an adaptive, collaborative approach to working in this difficult environment. Referring to this opportunity she comments,

It made me have to really very clearly think about what was important to me. How do I have people who are equipped to respond to crisis and respond professionally and thoughtfully while also being a real team, so that they know their allegiance? Yes, it's to College but it's to Arts and Sciences School and it's to this office...It's not about my personality, but it's about really being committed to the work that this office has to do and not feeling any obligation to other folks. (SOI:116)

Here she points out that two of her top criteria for hiring, and she later adds also for ongoing socialization of her staff, are adaptive capacity traits (e.g., “equipped to respond to a crisis and respond professionally and thoughtfully”) and trustworthiness (“they know their allegiance...being really committed to the work that this office has to do and not feeling any obligation to other folks”). Further emphasizing how she intentionally screens for these and other qualifications, she adds, “I was very, very prescriptive in what I wrote in the job description, how I worked with HR about the screening process, what I was looking for in a candidate” (SOI:130). In her conversations with HR she clearly specifies,

I need to know that people respect confidentiality. There were some concerns about crosstalk so I have to screen for that. I have to know that when I say this is confidential I know I can trust that they are going to respect and honor that. I need to have people who are able to have a sense of humor and to understand that this is an office that is atypical maybe and that we use a lot of humor because you manage crisis through rather than [allow it] to weigh people down so we can't navigate through. (SOI:162)

In this comment she again emphasizes the qualities of trustworthiness (“when I say this is confidential I know I can trust that they are going to respect and honor that”) and adaptive capacity (“manage crisis through rather than allow it to weigh people down so we can’t navigate through”). Thus she draws on her understanding of the culture and historical context (situational understanding) to establish a common baseline of unique capacities that

she believes are necessary to support the adaptive work of the office and expects everyone on her team to possess (e.g., “there are concerns about crosstalk. So I have to screen for that”). Notably, she communicates these hiring criteria to HR in a way that is framed in the language of building a shared office identity. This includes both using language that attaches the qualities to the office itself (“this is an office that”) and language that contrasts this office to other offices (e.g., “that is atypical maybe”). In this way she begins building and disseminating a new story (a new construction of reality) about the distinctive qualities of this office and those who work there. Finally, through her actions (“very, very prescriptive...job description...way I worked with HR”) she helps bring about the very reality she is describing, thus bringing both ability (new reality) and integrity (diminished gap between reality and different constructions of that reality) to her team.

In her conversations with HR she also lays out the following requirements to guide the recruiting and selection process:

I want also people who don't want to just be in this office but have some kind of long-term game. They want to learn. They want to move on. They're not settling...This is going to be an office where people are going to probably cycle out and do great things. I know that they're driven by that so they're going to want to be a support and a resource and creative while they're here, because it's not just about this, it's also about their own professional development. (SOI:168)

In this part of her conversation she communicates the importance of developing a team that is capable of working in the present in ways that are oriented toward, and support, longer term goals and adaptive changes. In other words, she wants people whose orientation to time and learning (“they want to learn. They want to move on...creative while they’re here...also about their own professional development”) mirrors that which she feels is required by the office to carry out “bigger vision” and adaptive kinds of work; an orientation in which people are willing to try new things, learn from mistakes, and apply that learning at

each step along the way in the process of building toward something larger in the distant future. Offering a reference point for this mirroring Sherry says of her own work (the work of her office) “so much of it is this kind of localized work. I know I’m doing it but it’s hard to see. Because there are so many little incremental steps that I have to do first. Before we can move the big boulders” (IDI2:1321). Moreover, by hiring people who are committed to both the work of the office, and the work of developing themselves, she deliberately shapes an office reality in which the culture is simultaneously supportive of greater realization of the unique strengths of the parts (the individual staff members), and greater leveraging of these evolving strengths in service of the whole (the dean’s office).

Sherry similarly works with her existing staff to encourage and reward these same kinds of capacities. For example, describing her growing confidence in a key member of her existing staff she explains,

One of the administrators in my office was relatively new [at the time of the reorganization]... it was really hard on her. I thought, “Okay, if we can figure out our way through this we are going to be a particularly unstoppable team.” (SOI:420)

This same administrator is somebody that I have been mentoring and who I think is really good at her job and is coming into her own now. She was with me through that whole process so I know that I can trust her completely, implicitly. We have a relationship that may be different from other dean and [title] because we went through this really traumatic period. (SOI:78)

Here Sherry points out how she and her colleague enter the fray (the unknown) together to “figure out our way through” and, in the process, develop a shared history and unique relationship based on deep trust (“I can trust her completely, implicitly”). This habit of embracing the learning potential of ambiguity contrasts with the more common, less complex relationship to ambiguity in which the actor seeks to remove or resolve the source

of ambiguity. In addition, Sherry's mentoring helps this associate dean develop her personal capacity as a leader ("coming into her own").

Sherry's success at rebuilding her team does not go unnoticed by the community. She points out, "People say, 'Wow, you really have a cracker jack team' and are always commenting to me about how my office came out of the fire somehow" (SOI:98). The "cracker jack" comment highlights recognition by the community of her team's capabilities as a highly effective administrative unit; a reality that she proudly reports counters the narrative of ineffectiveness implicit in the first wave of reshuffling. The phrase "out of the fire somehow" highlights the larger meaning of this success by acknowledging the context in which it was achieved, thus acknowledging Sherry and others' recognition of its value as a symbol and a model for healing the kinds of identity fractures that so many in the community are experiencing. Further, Sherry realizes that the newly developed strength of her team makes possible new kinds of work for herself. Sherry explains,

These are folks that really know what they're doing...Now I am seeing that there are more things I can do in terms of fundraising and positioning myself as a higher education leader externally. They are presenting themselves more to me, or I am seeing them more, because I am less worried about what is happening here...because this is already a well-oiled machine. I have started to realize that I am changing how I structure my days and how I think about how I am going to use my time while I'm here because I have more faith in not having to do the really microlevel troubleshooting. (SOI:200)

There is both caution and liberation in this description; a sort of wariness of things that look too good to be true, that seems to reflect learning based on her experience that things aren't always what they seem in this world of partial constructions of the truth. However, over time, and with a certain amount of testing (e.g., slowly giving up more and more of her control and seeing that her team can handle it) Sherry comes to realize the extent of her success in rebuilding both the capability and the identity of her office, and begins carving up her own time and priorities differently—giving greater focus to the kinds

of wider-scoping work she came to college to do and that she felt the College, and her team, were not ready to take on until this ‘moment’. Sherry adds, “The provost even said ‘I really see how having the people in place has had an impact on what you’re doing and what you can trust them to do’” (IDI2:1105) and, as I explain later on, this recognition from senior leadership further facilitated Sherry’s efforts to shift her attention to the larger-scoping, institutional level work she is so passionate about doing. Both the situationally grounded logic Sherry uses to redefine her priorities, and her sensitivity to timing and timeliness of certain kinds of activities such as fundraising and external positioning (vs. the less complex formulation that they are ‘on time’ by some internally or externally defined standard) reflect elements of complexity in Sherry’s description of how she shifts her own priorities in response to the developing capacities of her team.

Action scenario 2: Social media strategy (attracting collaboration via shaping of truth and telling).

This story is about how Sherry responds when she reaches a roadblock in her early efforts to directly influence changes in how the College marketing organization is communicating with key constituencies about the programs and accomplishments of her School and others. Specifically, after identifying an unmet need in the marketing communications space, she first reaches out to the organization responsible for that function within the College and tries to influence the desired changes primarily through dialogue—telling a different story about the larger reality they face and ways they might work together to address it. However, she realizes through her conversations with that office that they are not receptive to shifting certain basic assumptions they hold which frame how they approach their work. Specifically,

The marketing office had a different set of objectives about how they marketed faculty. They were so focused on 18-year-old girls that they didn't see that marketing an institution is about a lot of constituencies. I saw that,

and I was like, “okay, it's not their priority, we're just going to do it on our own. We are going to create in house our own little thing.” (SOI:702)

Here Sherry concludes that conditions are not ripe to allow direct collaboration with the marketing organization, so she decides to create a new, more self-contained ‘space’ where the work she believes is necessary can take place. She goes about this as follows:

Working with that same person in HR [the one who helped rebuild her office staff] I told her, “This is what I see. I am going to move this here and move this here and give up this position here to do this thing, because if I don't do this it's never going to happen”...So I created this position. Now we have a newsletter. We created [among other things] a year-end publication that highlights faculty because I don't think people were being recognized and cast the way I thought they should. So I just did it and that was really successful...Faculty are bringing their accomplishments here so we can strategically leverage that information to the audiences that need to hear about it. Now the other deans are like, “I need one of those people too.” So that's where I put my creative energy: doing things that I can just do. (SOI:709)

We see in Sherry's account that one of her first moves is to reach out to the specific person in HR with whom she has deliberately cultivated a relationship based on trust (“that same person in HR”). Additional evidence of her trust in this person is provided by her comment, “I've had a lot of discussions with her...she was here during that reorg period and I think she intuitively understood why it was so important for me to get it right [hiring good people]” (SOI:152). Next, Sherry knowingly makes tradeoffs to create the needed position in her own organization, despite an already thin staff and tight budget (“I am going to move this here and move this here and give up this position here”). By doing so, and by working outside existing norms and structures to accomplish her goal (e.g., existing division of functional roles across organizational units, existing staffing structure within her organization), she demonstrates both recognition of, and ability to shape, the current organizational reality. She also demonstrates her willingness to make personal sacrifices to move the organization toward values she believes are needed to promote the health of the

larger community and institution, inviting further trust in her as a leader capable of contributing to shifts at the College level.

Speaking to these benefits, Sherry alludes in the comment above to the ways in which the function she creates contributes to healing some of the identity fractures that I discussed earlier in the challenges section. First, it addresses the faculty identity fracture by better celebrating and publicizing these scholar's accomplishments ("I don't think people were being recognized and cast the way I thought they should"; "faculty are bringing their accomplishments here"). Also, it addresses her own identity fracture by gaining recognition for the value of her strategic insights as they relate to expanding visibility and success of the College and its organizational units ("now the other deans are like I want one of those too"). Emphasizing this last point, she expounds,

I think the relationship with these offices is evolving from a very siloed "we're the experts, and we don't need you" to provide input into an interdependent relationship...I think it's happening because they see that we actually deliver. For example, we had an event that we planned. We did it all on our own and we got coverage from a newspaper in Big City. We had a reporter from a local paper that came to another event. We just did that. I think when they saw, "oh wait they're getting College name out all on their own" that legitimized partnering with us. When they say that [my communications person] is so good at what she does and "we wish we had her." I'm like, "I bet you do. Don't try. But we can work together." So, I present our office as we want to collaborate and work in support of what your goal is because it benefits us too. I keep saying that and I keep saying that. Then, I think, little by little things are cracking open. (SOI: 723)

In this remark, she describes how others' recognition (constructions) of the new reality she is shaping through her in-house marketing function ("they see that we actually deliver"; "they're getting College name out all on their own"), coupled with new stories she tells about the way her office can and does work ("I present our office as we want to collaborate and work in support of what your goal is because it benefits us too") have begun "cracking open" other constituencies' reified notions of how the organization does and

should operate (“evolving from a very siloed, ‘we’re the experts and we don’t need you’” assumption) to enable greater receptivity to new ways of thinking and acting she seeks to promote (“input into an interdependent relationship”). Here again, she explains how she heals the identity fracture experienced by herself, and her office, by simultaneously operating on the reality (“they see that we actually deliver”) and on the story (“I present our office...”) to create shared understanding of a newly formed reality characterized by the more adaptive set of traits she believes are necessary for the health of the community and the success of the College.

Notably, acting in isolation (by creating a locally controlled marketing function) is not countercultural at the moment in time when Sherry implements this strategy; it appears from the outside to mirror the silo mentality held by many in the organization. What’s important to note, as it further highlights the role of complex thinking in this scenario, are the longer timeline and larger intentions she holds which are aimed at creating conditions that promote greater collaboration over the long run — conditions that include healing identity fractures preventing the community from seeing value in collaborating with Sherry and her office, among others. In other words, Sherry’s actions in this situation are informed by a paradoxical logic in which acting in isolation (in the short term) is used as a way of legitimizing greater collaboration (in the long run).

And yet, the data in Sherry’s case taken as a whole suggests that Sherry’s actions are less instrumental than this description suggest. Her hindsight interpretation of this in-house social media function reveals how she makes sense of her actions and plans to leverage them to promote a culture of collaboration, a goal she holds tightly to throughout our time together. However, it is not through some linear cause-effect logic that she pursues the course of action outlined above. Rather, as I mentioned earlier, she pursues a multicentered

approach to building strategic relationships built on mutual trust, mutual learning, and collaboration toward shared goals. In addition, she uses a process of continually experimenting, learning, and interpreting feedback from the environment, and actors within it, to continually adjust her course in ways that are aligned with the larger goal of healing herself and her community. She does this to provide a more solid foundation for pursuing more collaborative kinds of work together in the future — whatever those kinds of work may look like. The goal of helping the community progress toward its shared values of stronger community and greater interdisciplinary collaboration, values she personally shares, remains as a priority over time. However, how that goal is defined—what it means or looks like for this community to better embrace and enact that value—as well as how she and others might contribute to movement in that direction, remain open for interpretation by her, and by the community, such that the answer can only be arrived at through continual movement between, and alignment of these many constructions of the world.

Action scenario 3: Program director's meeting (establishing conditions that promote deep, mutual learning).

The entry point for this story, although not its beginning, is a decision Sherry makes to invite a particular senior administrator to a monthly meeting that normally includes herself, the directors of select degree programs in Arts and Sciences, and one or two other mid-level administrators. The agenda for the meeting typically revolves around such topics as program enrollments, admissions, financial aid, competition, and the meaning of being Arts & Sciences graduates. Sherry explains that it became clear to her at some point that a particular senior administrator who was in his first year, and whose responsibilities intersect with the agenda topics outlined above, had limited knowledge of these select programs within Arts & Sciences. Partially justifying this gap, and referencing the reorganization described earlier, she explains,

We are a very small program now and we are kind of weirdly organized... There's no professional string that ties these programs all together like nursing or business so we're kind of amorphous in that way. I think he didn't really understand how courses are organized and all of that so I wanted him to have firsthand knowledge of it. (SOI:808)

She explains how, in reflecting on how she might address this knowledge gap, she said to herself, “He seems to like me. We get along really well. Let me just invite him and present him with an agenda” (SOI:816).

Notably, the reason he “seems to like” her is no accident, and takes us back to the ‘beginning’ of this story. At another point during our interviews, Sherry explains how she reached out, across leadership levels, to cultivate a relationship with this senior administrator. She did so not for any immediate instrumental purpose, as a less complex-thinking person might do, but because he was new to the organization and she noticed that he “seemed to be stepping on land mines left and right because he didn’t understand the culture” (SOI:743). Granted, this action is consistent with her larger strategy of building relationships built on trust. However, here we see that the way she pursues that is not by stringing together a series of relationships that she has determined can provide instrumental gain, but rather, by enacting the values of transparency, strong community, and collaboration that she seeks to move the community toward.

Sherry explains that she felt safe reaching out to this person because she sensed from her interactions with him during his recruitment, a process in which she participated as a member of the search committee, that he respected and appreciated her. Acting on this kernel of trust, and creating an opportunity to evolve it, she “started reaching out to him and saying here's what I think, or how are you doing, or let's work on this and just trying bring him in” (SOI:754). The administrator was receptive and they began meeting informally from time to time to exchange stories and information over coffee. In this digression we see how

Sherry's commitment to building relationships based on mutual trust, her attunement to the potential for such trust, and her awareness of the ways in which actions and attitudes are interpreted through cultural lenses ("stepping on land mines...because he didn't understand the culture"), motivates her to act in ways that both invite and uphold the value she seeks to promote. Through this embodied act she signals to the administrator the possibility of a different kind of relationship, one based on mutual trust and empowerment. She further describes how this relationship evolves in ways that reflects realization of this potential:

He knows that I don't share stuff; that if people tell me things I don't tell. If you want it to be kept confidential, I keep it confidential. They know that about me, too, because stuff doesn't get out. [One day] he came in and told me some stuff that I was like, "We barely knew each other, you're being rather trusting. Okay, all right." But I think what it's done is it's meant that now...he advocates and he says, "This is the great stuff that I see Sherry doing." Because he's also privy to conversations that I'm not a part of where he's seen the residual effects of some of the reorg stuff I told you about. He sees it and he's in a space where he can say, "Well, actually, here's what I'm seeing happening." He does that, and then he tells me he did it. (SOI:759)

Here we see how, over time, this senior administrator comes to see Sherry as a true confidant. Having validated the story about her trustworthiness ("they know that about me") through his personal experiences of her during their early interactions ("started reaching out to him...trying to bring him in"), he takes a risk of his own and shares sensitive information with her. By doing so, he reciprocates her trust and creates an opportunity to further deepen it. Both through this act, and by standing up for her in senior leadership circles ("he's in a space where he can say 'well, actually, here's what I see happening'". He does that, and then he tells me he did it") he contributes to helping Sherry heal her identity fracture.

Having established this historical context, I now turn our attention back to the meeting with the graduate directors. Here is how Sherry describes her more local preparations for this meeting:

I said [to the senior administrator], “Here's our vision for what we want to do in Arts and Sciences College. Here are our concerns. Here are things that we think are opportunities. Here are our questions.” I gave him that in advance, because I totally had to do that. I also worked through with all the directors what do we want him to walk away with knowing? What is that one thing that we want him to know when he leaves here? We had a plan and then we went in. (SOI: 818)

In this comment, Sherry points out how she creates a shared frame for the meeting; another key condition—a form of empowerment—that shapes the kind of work that can take place in this arena. Specifically, she submits the agenda and preliminary content to the senior administrator ahead of time and works with the directors to develop a plan for the meeting. Her statement “I gave him that in advance because I totally had to do that” signals her intentionality around creating this shared frame. In other words, she doesn't simply proceed in a business as usual manner with regard to her preparations for this meeting; rather, she recognizes that the dynamics shift when new people are present, particularly unknown people holding more power in the organization. Thus she modifies the container to meet the needs of the particular group present.

Sherry admits being pleasantly surprised by the course of the meeting, the degree of mutual learning made possible by these and other preparations (e.g., she has the directors run the meeting—another form of empowerment), and the ways in which the effects of the meeting spill into other arenas in subsequent days and months. For example, she shares the following account of her personal learning:

I actually learned really interesting things that each of the program directors is thinking about doing that hadn't come up in our meetings...I learned about some of the worries that they had about their programs—residual effects of what had happened, like: Are we safe? Is someone going to close us down? I realize I had that worry more than I thought. How do we make sure that our graduate programs are valued here? That came out that I wasn't expecting. I saw how much of a good team they are, which I hadn't seen because I'm usually running those meetings and I wasn't really observing it as much. I experienced their shared identity as a team and really saw each of them take ownership of things that they were really proud of in a way that I

hadn't seen before. I really did learn about particular things that they were really passionate about in their programs that I had not realized before. I think it came out because they were telling him, but they didn't realize that they were telling me too. Or maybe they did. (SOI:824)

She also references learning that is jointly experienced by herself and the participating directors, including learning about the degree to which the identity of Arts & Sciences as a valuable contributor to the College's success has been restored and this senior administrator's organization is committed to supporting their work. Specifically,

We learned some complimentary things about our programs and how we were doing. The senior administrator said, "You really do this. You're a flagship here. I'm really impressed by how you have been able maintain x, y, and z. I say this because I like what I see. What can we do to support you?" (SOI:845)

Finally, she reports that their invited guest, the senior administrator, learns some things as well. She finds out about this learning from his post-meeting comment, "That was really great. I can't believe how much I learned. Those are some extraordinary people" (SOI:887).

Looking across these different descriptions of learning we see that Sherry's insights span multiple territories and fields of experience (as defined by Torbert). Examples are provided in Table 22 below.

Table 22. Sherry's Observations of Learning Promoted by the Program Directors' Meeting, Mapped to Torbert's Territories of Experience and Fields of Inquiry/Action.

Territory of Experience	Field of Inquiry/Action		
	1st person <i>Sherry</i> (I)	2nd person <i>Sherry & Directors</i> (We)	3rd person <i>Directors & Sr. admin</i> (They)
Third territory <i>thoughts/feelings/beliefs/goals/strategies</i>	"I realized I had that worry more than I thought"	"We had a plan" (shared frame)	"their shared identity as a team"; "[their] worries"
Second territory <i>behaviors/operations</i>	behavior shift: listen & observe differently	role switch: directors lead/sherry observes	"each of them take ownership of things"
First territory <i>effects/outcomes</i>	"I actually learned really interesting things"	"We learned some complimentary things"	"Sr. administrator said, 'I can't believe how much I learned'"

This process of interweaving experiential data drawn from multiple fields and territories is an example of integrative awareness, a form of complex thinking described by Torbert (as defined in Part II of Chapter 2).

Another interesting feature of Sherry's reflection on this event is the degree of surprise she expresses at the course and outcomes of the meeting. Specifically, she explains "I thought that the meeting would be purely educational for him and that he would know what we needed him to do. Go team, let's do it" (SOI:825). While the senior administrator's post-meeting comment confirms that these initial expectations were met, the last line of this comment in particular ("Those are some extraordinary people") hints at the uncommon nature of the exchange that took place, suggesting that it is *because* of the transparency characterizing the exchange, not *in spite* of it, that this occurred. Moreover, the surprise Sherry expresses at the specific information exchanged during the meeting (e.g., "[information] came out that I wasn't expecting") and the broader set of learning outcomes achieved, reinforce how the conditions she established for the meeting, although initially

oriented toward supporting a particular goal (the senior administrator's learning) also supported a certain way of working together that enabled a larger set of benefits including: (a) a broader set of learning outcomes affecting more participants in the meeting, (b) a shift in the reality of how subsequent monthly meetings worked "[that meeting] changed the chemistry of our working together...opening it up a little bit more" (SOI: 883), and (c) the availability of additional content for the senior administrator's storytelling about Arts & Sciences ("he went back and told other people 'I had this great meeting and I learned all these great things'" (SOI: 894)).

Further emphasizing how the conditions she establishes, such as mutual trust, shape the course and outcomes of the meeting, when I asked her to reflect on what had happened in the meeting to support the outcomes achieved she replied, in part,

The fact that the graduate directors felt comfortable enough saying what they had to say meant that they felt comfortable with him, even though this is a guy that many of them didn't really know, because they had some faith that I had laid the groundwork so they could say what they needed to say. They said some really hard truths too. I was really impressed that they felt confident enough to just do that, to just say "Sorry, boss, but I got to say..." (SOI:872)

Sherry makes sense of the surprise contents and outcomes of this meeting by interpreting the directors' actions as a reflection of the deep levels of trust they have in her, a trust that we have seen elsewhere she works hard to instill in her relationships. She believes that the directors' actions in this meeting demonstrate that they feel safe enough to take the personal risk of exposing to each other, and to this senior administrator, in front of Sherry (their "boss"), their deepest worries, alongside their plans and strategies for ensuring the success of their programs.

Speaking to the mutual quality of trust characterizing Sherry's relationship with these directors, elsewhere Sherry describes how she demonstrates her trust in these directors by

“letting go of the need to control” (SOI:869) the meeting, and allowing the directors to take the lead in shaping its content and course. While she meets with them ahead of time to develop a “plan” her story suggests that this plan was used as more of a guidepost or frame than set of marching orders, and thus allows the directors to bring up certain ideas and questions they may not have, had Sherry been in the facilitator’s chair. Moreover, Sherry not only allows her directors to take the lead, but supports the flow of the meeting as it unfolds (vs. seizing control of the meeting to keep it focused more narrowly on her initial goal), and both embraces and seeks to leverage the learning benefits that accrue from the course it ultimately follows. Underscoring her appreciation of this shift, and illustrating the consciously tight-loose hold she maintains on her entering objectives, Sherry likens what happened in the meeting to

the alchemy that I remember seeing when I would teach, where there would be these moments when it just clicked and you get to witness it... like you have your plan walking in...but you know that the students are going to up-end it and run with it and go in a whole other direction someday, and that's actually okay. (SOI:863)

With this comment she validates her awareness that the plan she had established with the program directors up front was being “up-ended” in the course of the meeting, and that she not only did not feel threatened by this, but embraced it as a useful development in a process guided by mutual trust and aimed at learning by the community.

Incidentally, in this action scenario I deliberately construct the story in a way that moves nonchronologically through various points in time: past, present, and future. This format mirrors the sense making process I see Sherry using throughout our time together. She consciously draws on historical context to interpret the present; she intentionally re-interprets the past through frames reflecting current knowledge; she proactively orients current actions toward both immediate and distant future goals and possibilities; and she

notices how frames shift over time or hold different meaning relative to different groups and timelines. All of these features of her sensemaking process speak to her vivid awareness of the constructed nature of reality, and her belief that both reality and our constructions of it can be shaped through deliberate actions in the present.

Line of adaptive work #2: Illuminate & reanimate commitment to interdisciplinarity across the College campus.

Environmental Snapshot

In the major finding for this case (shaded box early in this chapter), I describe Sherry as “standing in the eye of an extended organizational upheaval.” In this hurricane metaphor, the major reorganization described in the first line of work represents the leading edge of the storm. The trailing edge is yet to hit, but the forecast is clear: more sweeping change is “afoot” (IDI1:206). Senior leadership at the College is actively engaged in its next cycle of strategic planning and will be announcing priorities for the coming cycle (and beyond) in the coming year. Sherry informs me that while she and her mid-level leadership peers have provided some input to this process, they (like most members of the community) are not privy to the details of how it is evolving or what changes to expect, aside from knowing that the changes are likely to be significant and the vision more aspirational than in the past. Emphasizing the scope of change expected Sherry notes, “What I’m hearing is that the whole institution may be reorganizing in a very significant way, where how the schools are organized now may change and the numbers of them may change” (IDI1:203). Highlighting the uncertainties surrounding the process itself she comments, “I’m not completely sure how the strategic planning process is going to go because it’s changed about three times” (IDI2:574). In spite of these realities, as well as continued belt tightening signaled by the provost’s announcement on the day of my second observation that the community should

prepare itself for another two years of financial hardship (OBS: S1a-41), Sherry and her peers are charged with keeping their organizations moving forward and their people engaged.

Also contributing to this backdrop is the following brief history of Sherry's efforts to apply what she calls her "big vision way of thinking" (IDI2:1324) to her leadership work at College. This flashback underscores how Sherry applies her attunement to multiple visible (infrastructure) and invisible (culture) features of the environment to continually reevaluate her role, priorities, and strategy against a set of ultimate goals defined in reference to the setting and situated on a multitiered, long-horizon timeline. It also shows how she uses this information to continually readjust her course of action to pursue, at each moment in her historical trajectory, the set of strategies which she judges to be (a) most feasible given the environment and her positioning within it, (b) most impactful with reference to her goals, and (c) most sustainable with reference to the unfolding landscape.

In the opening interview, Sherry explains to me that she came to College with a concrete vision of how she might expand visibility and success of the Arts and Sciences School and the College more broadly. She had expected that much of her work would be externally facing and would involve collaborating with advancement, marketing and other internal organizations to partner in new ways aimed at advancing institutional goals. She had very successfully taken up such institution-shaping work while engaged as a faculty member at another college, a set of responsibilities which extended somewhat beyond the formal boundaries of her role at the time. Thus, she felt confident and excited about the chance to bring even greater focus and broader institutional perspective to this kind of work as Dean of Arts and Sciences at College. However, early in her tenure at College, Sherry learned that the conditions there were not ripe for her to directly take up the kinds of work that she was most passionate about. Her first hint of this came, she tells me, when she created through

her own initiative an external partnership opportunity and was informed that it would not be funded because the resources would be needed to support existing students. Since it was not entirely clear how to interpret this single data point, Sherry continued with this strategy for a short time but reports to me, “After a couple of times when I tried to bring things here that we just weren't ready for I stopped doing that” (SOI: 690).

Despite her disappointment at this development, she remained committed to channeling her “big vision way of thinking” into efforts that had potential for sustained, wide-scoping impact on the institution and beyond. Thus she began experimenting with different ways of carving out lines of adaptive work that better accounted for the realities of her situation. These realities included both the operational and financial challenges outlined earlier, as well as lack of institutional funding for significant new initiatives, absence of allies or advocates in senior leadership, and college-level identity fractures described later in this chapter. One strategy she pursued was engaging in more *self-contained* external partnerships and speaking engagements. Specifically, she sought out opportunities that did not require ongoing funding and support from the College and allowed her to contribute for short periods of time to larger dialogues about key social issues in higher education (e.g., globalization, interdisciplinarity) in ways that also deepened her own understanding of these issues. Another strategy she pursued was carving out more *locally controlled* projects. The creation of an in-house media capability described earlier is an example of this. A third strategy she pursued was to carry out other types of *foundational work* aimed at building the capabilities of her team, including the work described earlier aimed at healing the identity fractures she and others had experienced and developing a strategic network of relationships and alliances grounded in mutual trust and empowerment.

Through these various indirect strategies ultimately directed toward catalyzing institution-level adaptive change, Sherry consciously builds capacities and positions herself and her organization in ways that attract the attention of Sherry's new boss, the new provost installed after the last reorganization, who sees value in Sherry's ideas and ways of working and becomes one of her strongest allies and supports. For example, this provost invites Sherry to co-lead development of a new, interdisciplinary core curriculum, a line of adaptive work that cuts across all Schools within the College and requires broad engagement with constituencies across the College community as well as careful handling of highly politicized changes. The new curriculum is successfully developed and implemented within a year. Moreover, Sherry notices that the provost is deliberate in her recognition of Sherry's contributions to this (and other) efforts. She remarks,

[The provost] has been very, very wonderful in her public recognition of the involvement that I have had in [co-leading development of the new core curriculum]...and I've taken note of how intentionally she will identify things that I do as an advocate for my set of goals and my mission and for faculty and for students in public. She names it. And she does it pretty consistently. The first time she did it I was kind of taken aback because I wasn't used to that. Then I realized, oh, this is absolutely intentional on her part. What she is saying, and who she is saying it to. She is positioning herself as "I see what Sherry can do, and she's proven herself capable." So, my success is tied to that core curriculum being what it is. (SOI: 469)

Senior leaders' endorsement of the new curriculum signals to Sherry a new level of institutional commitment to reanimating the values of interdisciplinary education and strong community. Attuned to this shift, sharing these values, and recognizing the presence of a new ally in the provost, Sherry changes course again and begins what she calls 'a new era' (SOI:454) in her leadership at the College.

When I first meet with Sherry, I find her engaged in the process of mapping out her immediate and longer term next steps for this "era." With the success of the core curriculum under her belt, and demonstrated support from select senior leaders, she

describes for me a number of key lines of adaptive work she is in the process of carving out for herself in collaboration with this provost, several of which I bulleted in the domain section near the beginning of this chapter. As I mentioned in that section, given my greater visibility into Sherry's efforts in the area of "working with faculty to encourage more interdisciplinary initiatives" (the second bullet listed in the domain) I focus this line of work on that area. Notably, Sherry describes her work in this area as being in a "nascent period" (IDI1:1269). As such, this work provides an excellent aperture through which to view how Sherry draws on complex thinking capacity to diagnose the situation, direct attention to a particular line of adaptive work within it, and engage others in the process of evolving it into a concrete something that can be seen, reflected upon, engaged with, and used as an orienting pillar for other activities taking place within the organization.

Key strategy using complexity: Create conditions that support emergence of new ways of thinking and acting, which embody and enable broader enactment of the values of interdisciplinarity and collaboration.

Sherry's diagnosis of the adaptive work that is most needed, and now possible in this 'new era,' includes recognition that the values of interdisciplinarity and collaboration, which she personally holds and has used as a guiding compass for her adaptive work in the past are likewise held by many in the College community. However, Sherry also observes that these values are enacted by the community in ways that are somewhat self-contained, intermittent, undercelebrated, and undersupported. For example, Sherry and others (in meetings I observe) describe pockets of local collaboration that exist within the institution, even beyond the collaborations initiated by her office that I discussed earlier.

Sherry also notices that these values exist in tension with competing commitments, such as self-preservation and self-integrity, which are also widely held by the community and, as I describe in the challenges section that follows, more broadly enacted, in part because

they are continually activated by features of the institutional reality. Shedding light on the possibility of managing this tension in adaptive ways, Sherry describes several incidents in which faculty who were presented with ‘safe’ opportunities to express their commitment to these values, seized these opportunities in a very concrete way. For example, speaking of her work co-leading development of the core curriculum, Sherry recalls her surprise when she saw that,

someone in philosophy was going to *go to the mat* to make sure that students had hands-on lab experiences in the science course. I’m looking at her like, “Really?” I mean just because she got why that made sense. There was a way in which people were already thinking about not just protecting their own domain. (IDI2:438)

Additionally, Sherry observes that the structure of schools and programs at College hints at the interdisciplinary roots of the educational philosophies underpinning these academic units. She explains, “We’re organized in a very unique way compared to virtually any other school in the country...there are things that we could do that are unique but they can only happen if it’s about cross-school work” (IDI2:983).

Additionally, Sherry interprets various signs in her environment as an indication that there is growing commitment to these values among senior leadership ranks. For example, senior leadership not only endorsed the new interdisciplinary core curriculum, but also placed the director of that curriculum on the workgroup for the College strategic planning process. Additionally, the provost has been demonstrating strong private (in conversations with Sherry) and public support for these values. Specifically, Sherry reports that when she discussed with the provost her interest in pulling together workgroups to explore different themes related to cross-department and cross-School collaboration, the provost “liked it very much, and I think is going to be borrowing it to do something that’s more all-college around themes that are emerging [from the strategic planning process]” (IDI1:189). Also,

when “one senior administrator wanted to move a particular major into the school of management, when the new provost came in she just said, ‘No. Why do you have to move it? Why can’t it be shared among two schools? How hard would that be?’ Ha, Ha” (IDI2:967).

Sherry notices that despite these existing threads of interdisciplinarity, and the increasing endorsement of these values by senior leadership, the institution’s embrace of this value remains somewhat tenuous, and largely invisible to the wider College community, as well as the public. Sherry believes this is due, in part, to the lack of a shared narrative drawing out these core values, and in part to the difficulties posed by the environment, such as the lack of processes, places, and formal priority statements encouraging and enabling people to engage in the kinds of adaptive work needed to learn what it means, and how it looks, to enact that value *in this environment*. In other words, endorsement of the values by the community and the leaders is one (rare and important) thing. Helping the community engage in the learning required to enact these values without experiencing significant personal tradeoffs is another. Sherry’s lighthearted but sarcastic “Ha, Ha” in the quote above (at the end of the previous paragraph) underscores this distinction.

Embracing this distinction as an opportunity, Sherry takes up the adaptive work of creating the conditions necessary to promote safe, experimental, and meaningful engagement of select members of the community, who have demonstrated their commitment to these values in tangible ways and have also demonstrated their commitment to working in ways that are founded in mutual trust and transparency. The conditions she creates are aimed at engaging these people in ways that (a) enable them to work more collaboratively in the face of current reality, (b) build capacities that prepare them to better thrive in whatever future may unfold, and (c) uncover opportunities for them to shape what forms that future will

take. She pursues these with the mid-term goal of promoting broader enactment of the values of collaboration and interdisciplinarity, and the ultimate goal of helping the institution better position itself in the sector. Later, in the Action Scenario for Line of Work #2, I provide windows into some specific ways that Sherry carries out this work on the ground.

Adaptive challenges.

There is a troublesome gap, Sherry contends, between the value of interdisciplinarity, which she believes is widely held (if sometimes narrowly defined) within the College community, and various features of the institution's reality, which thwart people's ability and willingness to embrace and renew this value in their day-to-day work. Two of the most salient challenges she describes as contributing to this gap are outlined below.

Adaptive challenge 1: Culture of competitiveness, isolationism and self-preservation.

Sherry points to a culture of competitiveness at College, which is characterized by habits of isolationism and assumptions of the need for self-preservation. She identifies this cultural feature as a thwart to the kinds of collaboration she seeks to promote. Specifically,

I think people want and value interdisciplinarity. They often think of it within their school, but cross-school collaboration is rife with problems and has historically been...That's partly because the culture of self-preservation has been very much about the silos—each school doing their own thing both in terms of how the budget is constructed and what information is shared. There's this competitive model set up that makes you not want to share with another school, even though you know it might do you some good. Faculty very clearly experience that us-versus-them school-to-school tension... Something has to happen to signal a different way of operating in order for people to really believe that they can work across schools. (IDI2:962)

Elsewhere she describes how even within Schools, and also across academic and operational lines, the competitive culture thwarts embodiment of this value. In meetings I observe, faculty reinforce this view. For example, during a discussion of the challenges facing faculty who strive to work more collaboratively and innovatively, one workgroup participant notes “currently there is a reluctance to share equipment across departments

because there are no funds to repair what breaks or wears down with use” (OBS:1a15-23). Another participant comments, “All the administrative offices have become the ‘house of no’. They don’t have any answers or can’t help get anything done” (OBS: 1a34). Sherry is keenly aware that she and others interpret their experiences through culture and other lenses (e.g., history, identity) and, as such, attach symbolic meaning to the events and actions they observe. For example, she points out how this culture of competitiveness has been reinforced over time by such factors as (a) differential treatment of faculty in different Schools, which is partly justified by differences in professional accreditation requirements but largely interpreted as reflecting differences in valuation of the work being produced by scholars in those different Schools; (b) historical events such as the changes associated with the leading edge of the upheaval were messaged in ways that left many feeling surprised, underappreciated, and threatened (e.g., faculty up for tenure, Sherry and other women of color, departments affected by layoffs); and (c) severe and persistent scarcity of resources add time and work burdens (e.g., fluctuating budgets, delays in salary adjustments, increased justification of spending) that compete with core responsibilities (e.g., teaching and research), which threatens aspects of their core identity (e.g., scholar) leading to acts of self-preservation.

Sherry believes that the symbolic meanings people construct hold great power for shaping the past, present and future; and these symbolic meanings can themselves be shaped by leaders through deliberate actions designed to shift entrenched assumptions and promote adaptive behaviors. For example, in the last line of the quote above Sherry speaks to her intention to signal a different way of operating; to act in ways that will be interpreted as representing a new level of commitment to, and support for, interdisciplinarity and collaboration. She sees this as a way of helping people come to believe that working more

collaboratively is both possible and safe. Sherry recognizes that influencing such learning is an adaptive challenge because neither she, nor anyone else in the community has the answer to what it might look like for people in this community under these conditions, to work more collaboratively, and across institutional boundaries. She sees her adaptive work as creating the conditions needed to bring people safely into experiments that allow them to figure out the answer to this together, and, in the process, shape the very conditions in the environment, which have historically thwarted the success of such work.

Adaptive challenge 2: Uncertainties surrounding current and future institutional identities widen identity fractures caused by historical events, and hinder a broader embrace of the value of interdisciplinarity.

As discussed in line one, historical events at College have had the effect of creating professional identity fractures for many within the institution. These fractures located at the individual level are reinforced by comparable fractures at the institutional level. Sherry comments, for example, that, upon her arrival, she was surprised to learn that the Arts and Sciences School doesn't have a mission statement. She was also surprised to learn that key aspects of the College's formal representation of itself (e.g., in certain marketing media) don't map accurately onto the reality of the college's current operations; both because it represents itself as having certain capabilities that it doesn't (e.g., Social Justice Center), and because it fails to effectively highlight other capabilities that it has (e.g., strong STEM; undergraduate research). Additionally, she describes in our interviews how certain programs affected by the reshuffling that occurred in the last reorganization have dual identity footprints, with their historical identity foot in one school and their present identity foot in another. In fact, one program that was moved out of Arts & Sciences in the last shuffle is now being returned to Arts & Sciences in a new online form, further complicating the identity politics associated with this program.

One incidental example of the way in which such identity confusion complicates the day-to-day work of Sherry and others is a story Sherry tells about reaching out to a particular faculty person in order to invite her to an interdisciplinary workgroup Sherry was starting up. Given her existing relationship with this person, Sherry contacted her directly, forgetting that this person now reported to another dean whom Sherry should have contacted first, under the protocol of courtesy and also given the environment in which many already experience priority conflicts thanks to rising workloads and thin staffs. She remarks, “luckily it was someone I was friendly with” (IDI2:1021) hinting at the political snafu that could have resulted had that not been the case.

These institutional identity fractures, Sherry contends, leave faculty and staff without consistent reference points for validating their own evolving constructions of School and College identities, and for defining their place within these communities. Moreover, given the culture of competitiveness and self-preservation I just described, she notes that these actors have little opportunity or incentive to compare notes on their individual constructions of these institutional units, or to otherwise develop a more shared understanding of their nature. This leaves them, she believes, to construct meaning of these institutions in ways that remain largely untested (and untestable). Characterizing the identity landscape flowing from this set of challenges, Sherry remarks, “I see College as having multiple personalities” (IDI2:1183). Although she makes this comment in reference to a particular representation/reality gap she encounters at the College level, it seems to capture more broadly the fragmentation of institutional identity constructions she observes within the community.

Sherry points out that this lack of shared institutional identity also motivates certain members of the community to define their place within that community in overly narrow

ways. This leads them to view interdisciplinary efforts as a threat, as the following quote, which references Sherry's work developing the interdisciplinary core curriculum, suggests:

I think faculty are really worried about their departments and not losing their departmental or disciplinary identity. How do we manage balancing commitment to interdisciplinary but also recognizing the value of traditional training in X department or in X field? There's a tension there that I saw from early on in the process that made people worried when voting for [the new curriculum]. (IDI2:455)

Notably, Sherry acknowledges that she and her peers are experiencing anxiety right alongside the faculty. For example, she comments,

We're doing zero-based budgeting for FY17. We're all a little freaked out about it. We had to have a conversation about questions like: "What are our core goals as an institution that we're going to gear this toward? Which core goals are ones that we think are going to have some longevity to them and which do we think are just transitional?"...Layered on top of that is a redesign process that's happening this year, which is really a reorg...I think all of us are feeling a certain amount of anxiety about what the outcome is going to look like because it has big - *big* implications, I think, for us individually in terms of what our place is here, but also what the identity of our schools will be, the identity of our faculty (IDI3:325).

As this quote suggests, Sherry does not view the challenge as one in which she needs to engage and ready others, working from some 'all-knowing' perch (as someone pursuing a more heroic leadership strategy might). Although, she does selectively exercise unilateral forms of power and define clear goals and expectations, as needed to keep the group focused on its adaptive work; she also joins them in their uncertainty, working to help them all (including herself) learn through the ambiguity while developing capacity and conditions that support their ability to thrive in this environment.

The uncertainties surrounding the approaching wave of reorganization are driving the wedge deeper into existing identity fractures. Not only is the community lacking a shared identity of the institution in its present form, but its members must also wrestle with added ambiguities around how, if at all, their independent constructions of professional and

institutional identity will be legitimized by the next wave of change. Sherry captures this anxiety in her comment,

There's the sense that faculty should get to make decisions about everything. I'm like, "Well, then you wouldn't need a dean, and you really don't want that"...When faculty say "We need to be consulted, we want to make certain decisions about policy," there's something else that they're really saying that I'm trying to get at which is that they don't feel connected. They don't feel like they understand what's going on. They're feeling that sense of change and feeling it's elusive what their roles are. So, they go back to "We need to be involved, we need to have a say." (IDI1:106)

Here Sherry describes a kind of role confusion that some faculty seem to be experiencing. She interprets this symbolically, suggesting that faculty questions about their place within different decision-making processes are signs of their deeper fears and uncertainties about their place within the institution, both now and later. Commenting on the challenge this poses for Sherry and her peers, Sherry remarks, "We need to be ready [for the pending reorganization] but I need to keep faculty engaged" (IDI1:203). In the action scenarios that follow, I show how she pursues the strategy outlined earlier to keep faculty engaged, in part, by providing them with safe opportunities to progress themselves and the community toward a value that is widely held (but rarely expressed) and aligned with emerging institutional priorities (at least to the extent that Sherry can determine by "reading the tea leaves" (IDI3:766).) Using this same strategy, she helps get people "ready" by building capacities and identity structures that prepare them to thrive in whatever environment emerges and find a place in whatever institutional structure evolves. In the process, she works alongside of them in a process of shaping what form this future reality will take.

Glimpses of Sherry in Action

Action scenario: Development of an interdisciplinary STEM vision and community.

With the dawning of this "new era" in Sherry's leadership at College, Sherry determines that now is an opportune time to shift to a more direct strategy for influencing

College-level adaptive change. With support from the provost, she leverages her existing foundation of trust-based relationships to identify and articulate specific areas of cross-school collaboration that she feels the community is ready to pursue more actively and intentionally. She proposes and gains acceptance for the idea of bringing together small groups of people to work on these areas, one of which is Science, Technology, Engineering and Math (STEM) at College. Her approach to identifying this area of focus, bringing the workgroup into being, and ushering it through its early stages of development, form the basis of this action scenario. In the pages that follow I describe how she carries out this work by pursuing the strategy described earlier, which is directed at influencing the learning required to promote three kinds of adaptive shifts:

- a. engage people in working more collaboratively in the face of current realities;
- b. get people ready for whatever future might come (e.g., build capacities that enable them to thrive in a wider range of possible futures); and
- c. shape a more adaptive future reality reflecting broader enactment of the values of interdisciplinarity and collaboration.

Notably, she pursues these shifts through an integrative process in which many actions are aimed at each of these three elements, and more than one of these elements is addressed by each action or set of actions, reflecting a many-to-many relationship between intentions and actions. This way of working seems to flow from a sensemaking process in which she locates the three elements above in a set of mutually informing, dialectical relationships whose development and interactions move the system and its members toward a more thriving state. What this looks like becomes clearer with the illustrations below.

‘STEM AT COLLEGE’ AS A LEVER FOR ADAPTIVE INSTITUTIONAL CHANGE.

Describing how she came to adopt STEM at College as an area of personal focus for building collaborative capacity, Sherry talks about a number of different considerations that informed her decision. First, she points out that interdisciplinary research and programs in STEM are connected to the existing values, passions, and ongoing work of different people scattered across the College, whom she felt confident mobilizing thanks to her network of trust-based relationships. Engaging these people, she explains, will not only strengthen and expand the interdisciplinary STEM capability at College, it will honor and celebrate “a lot of really good work and a lot of great innovation that’s been happening behind closed doors, happening on a shoe string (IDI2:177),” which, she believes, will contribute to healing the faculty identity fractures discussed earlier.

Second, Sherry views interdisciplinary STEM as an area of unique strength for College, which has not been adequately celebrated, supported, and foregrounded, yet holds strategic potential for better positioning the institution in a highly competitive market. She explains,

[The story of STEM at College is] in 10,000 different places. We know sometimes where to find it, but not always. Making it easier on people [to find that story] heightens something that is part of our identity that we believe is true but we can’t prove it’s true because we haven’t figured out how to tell it yet. (IDI2: 1245)

Here, as in Line of Work #1, she emphasizes the value of deliberately shaping narratives as a way of altering perceptions of identity, and healing fractures between capabilities and perceptions of capabilities. Further, Sherry validates her belief in the distinctiveness of College’s approach to STEM through conversations with people both inside and outside the College. For example, one senior administrator at another college, an

ally with whom she has actively cultivated a relationship, invited her to come visit his campus. Reflecting on that visit she reports,

It really was exciting to go and say “This is what we are doing as a women’s senate institution. It’s a very comprehensive way of thinking about STEM that prepares students to be really competitive at the graduate level. It is different than what we see at other women’s colleges for sure.’ There’s something we’re doing that made him want to know, ‘What are you guys working on?’ (IDI2:143)

In fact, it is through this and similar conversations, a process grounded in the complex thinking motivated habit of striving to continually test one’s own (partial) perspective by seeking evidence and external perspectives, that Sherry recognizes her own unique positioning within the College to serve as an advocate for interdisciplinary STEM.

Third, Sherry finds evidence to suggest that the focus on interdisciplinarity is aligned with yet-to-emerge strategic plans and priorities. For example, as described earlier, senior leadership support for the core curriculum and the provost’s active efforts to promote this value across the College signal a place for interdisciplinary programs in the future.

Moreover, Sherry explains, “When I was talking to the provost about some of the work I wanted to do she said, ‘I could really use a STEM concept paper or a position paper’” (IDI2:381), indicating clear support for that particular thread of interdisciplinary emphasis.

At the same time, as the College’s strategic priorities are still evolving, Sherry sees potential in STEM to both help solidify a place for interdisciplinarity in the future priority set, and influence the way this priority is interpreted and applied to shape organizational changes. Additionally, she sees work in this area as a good entry point for helping members of the community build capacities and relationships that will enable them to better thrive, regardless of what future may come.

STE(A)M: AN EARLY EXPERIMENT IN DEFINING SCOPE AND TESTING RIPENESS.

I asked Sherry why she scoped out the focus area as STEM and not STE(A)M as I noticed she had used both terms in an earlier interview.¹⁵ She replied that it was a deliberate choice. She explains that shortly before the first reorganization (when the previous provost was still in place) she got together with the faculty chairs of two departments, one science and one arts, to talk about STE(A)M. She recounts, “We got all excited. We had a number of conversations and they actually wrote up some ideas around STE(A)M. Then I turned it into a STE(A)M position paper. I thought ‘We’ve got to do something with this’” (IDI2:317). She explains how she shared the position paper with the then provost, who shared it with one of the externally facing organizations within the College, and then “it didn’t go anywhere” (IDI2:323). Sherry kept asking, and asking for feedback but wasn’t getting any—at least not from decision makers. She heard very positive feedback from people who reported to those decision makers, but not from the decision makers themselves. She recalls one conversation that helped her come to the realization that the issue of interdisciplinary STE(A)M was not ‘ripe’ for adaptive work. She recalls that exchange as follows:

One person I spoke to said, “Really interesting and creative and really about synergy and all these other ways of thinking about the intersectionality of those areas—really sophisticated.” I was just like, “Well, shouldn’t it be?” Then I realized, “Oh, you mean not too sure to do with this.” She said, “I would love to go on the road and talk about this.” I said, “But I bet you can’t”...She said, “Yeah. I can’t because we need to have a clearer mandate about it. But I see this is something that would really position College in an exciting way.” Then I said, “So, it’s not the time.” (IDI2:339)

Explaining how she responded to this realization of (un)ripeness, Sherry reflects,

Eventually I just said, “Look, I’m not working on this anymore because clearly if I am not even getting generic feedback about it, there obviously is no interest in this”...I thought, “I need to slow up on all of this across the

¹⁵ Whereas STEM refers to Science, Technology, Engineering and Math disciplines, STE(A)M refers to these same four disciplines plus the Arts.

board and take some smaller steps. I also need to reassure, [the two department chairs] that their hard work is not a waste. It's going to take a lot longer for us to come back to the core of what they were trying to articulate. I need to keep them involved but more focused in their area"... I decided to send people to their corners and then hopefully regroup when it's clear that there's more of a ground swell. (IDI2:334)

These comments illustrate a number of interesting features of Sherry's sensemaking. First, she is attentive to the more invisible layers of meaning present in the exchanges and events. She interprets both the lack of feedback from decision makers, and the conflict experienced by the staff person who valued the idea but did not feel empowered to act on it, as signs that the organization is not ready to take up this particular line of work. Also, she uses the position paper to both amplify the self-organizing actions of the department chairs, who met with Sherry and then wrote up some ideas (thereby co-locating authority in herself and in the community) and create a concrete object for reflection and feedback to be shared with the community and generate feedback (the position paper). Additionally, here, as elsewhere, we see how she seeks feedback both early and often in the process of validating not only the inherent value of her (construction of) ideas, but the readiness of the environment to receive and respond adaptively to them. We notice how she attends to *timing* ("It's not the time") and *pacing* ("It's going to take a lot longer for us to come back to the core of what they were trying to articulate"). As such, she is willing to put aside a good idea (which she and others consider to be *on time* relative to the locally expressed need in the community) when she learns of other priorities held by decision makers ("not even getting generic feedback") and low awareness of the need within the larger community ("regroup when it's clear that there is more of a ground swell").

Finally, Sherry remains present to the existence of faculty identity fractures, which, as explained in Line of Work #1 are fed by habitual disregard for faculty contributions to

shaping positive institutional change. As such, she makes deliberate efforts to “reassure [the two department chairs] that their hard work is not a waste.” She does this, in part, by supporting each of them in working on separate, department-level collaborative projects related to the ideas presented in the position paper. Thus, she doesn’t give up on the idea; instead she temporarily redefines its scope, placing it back into a more localized context (“send people to their corners”) until broader conditions become more favorable (“hopefully regroup when it’s more of a ground swell”). Possibly, she is guiding these faculty chairs in a process of enacting locally the values they wish to define and advance more broadly, to create a model, symbol and capacities that help ripen the issue for the broader community (as she did with her own efforts to build collaborative capacities within her own office).

Although the workgroup I discuss in this action scenario is focused on defining and progressing an interdisciplinary vision for STEM at College, the idea of STE(A)M remains as an undercurrent in Sherry’s work on Line of work #2. For example, two of the “guiding questions” appearing on the agenda for the STEM retreat I observe deal with STE(A)M and Sherry references ongoing conversations with people in her network about interdisciplinarity work that cuts across arts and sciences. This explains why both terms are threaded through my data with primary emphasis on STEM.

ESTABLISHING AN AUTHORIZING ENVIRONMENT.

As mentioned above, the provost had expressed interest in seeing a position paper on STEM. In the comment below (which revisits a quote presented earlier and places it in larger situational context), Sherry explains how she embraces that request as an opportunity to gain legitimacy and support for a process she had been contemplating for engaging people in more collaborative ways of thinking and acting. She explains,

When I was talking with provost about some of the work I wanted to do she said, “You know, I could really use, a STEM concept paper or a position

paper.” I thought, okay, so we’ll do that. Because that is actually not that hard to pull together as long as we have enough buy in from the faculty. So it was sort of me wanting to convene a group and then her asking for concept papers around a couple of different themes. I was able to marry the two initiatives together and move forward with that. It shows that the provost is clearly invested in this, so people will put their time toward it. I have just decided to hold off on the bigger STE(A)M vision until STEM gets more grounded. (IDI2:381)

It’s unclear from the data whether Sherry, or the provost, was the first to suggest the particular scoping of STEM (vs. STE(A)M or some other similar content). What is clear is that Sherry had begun engaging the community in thinking collaboratively and exploring possible collaborative emphases, including the mini-event of creating the STE(A)M concept paper before the current provost arrived (described above), and independent formulation of an intent to pursue a “workgroup” approach (described below). It is also clear that the provost holds a similarly strong commitment to promoting a shift toward more collaborative ways of working, and has pursued specific courses of action aimed at advancing this objective, some of which have intersected with Sherry’s efforts. My data supports the interpretation that Sherry and the provost are engaged in interdependent, mutually supportive efforts to advance the community toward broader enactment of the values of interdisciplinarity and collaboration—values that they share, and that they both believe are threaded into the fabric of the institution but need to be reanimated and renewed. That the provost’s actions support and inform Sherry’s is clear from the quote above, and other data. That Sherry’s actions inform and support the provost’s work, is suggested by Sherry’s contention (mentioned in the strategy section earlier) that the provost “borrowed” Sherry’s idea of workgroups and loosely applied it to the strategic planning process, and by Sherry’s description of her contributions to developing the core curriculum which the provost initiated, invited Sherry to co-lead, and publicly acknowledged was better for Sherry’s

contributions. That the provost's work is likely to continue being informed by Sherry's actions become clearer with the analysis that follows.

What stands out most to me about Sherry's quote above is her statement "I was able to marry the two initiatives together and move forward with that." Drawing on the complex thinking process of seeing connections that are not obvious or activated as a result of placing seemingly discrete elements in some larger frame that puts constituent elements into relationship, she finds a solution to both the provost's need for a paper and her own desire to initiate workgroups. Marrying these ideas together not only enables each idea to support fulfillment of the objectives of the other, but also creates new possibilities for shaping the larger landscape in which both ideas are situated. For example, Sherry charges the workgroup with shaping the vision to be articulated in the concept paper. Thus, the paper is more grounded in the needs and commitments of the community, connects these needs to larger issues and objectives at the college level, and becomes a symbol of what's possible through collaboration. The workgroup becomes an authorized activity through its connection to the goal of fulfilling this request of the provosts ("shows that the provost is clearly invested in this, so people will put their time toward it"), and in the process demonstrates to the community the value it can provide in the form of various outputs needed by the community. Moreover, Sherry's remark "that is not that hard to pull together as long as we have enough buy in from the faculty" underscores the value of Sherry's scaffolding of trust-based relationships, knowledge of faculty interests, and experience writing concept papers within this context.

CREATING A SAFE SPACE FOR COLLABORATIVE WORK.

Sherry thinks of the STEM workgroup not as a project team being brought together to achieve a series of predefined outcomes carved out by her and blessed by the senior

leadership. Rather, she envisions the group as a community of people who: (a) share the values of interdisciplinarity and collaboration, (b) are committed to heightening visibility and impact of educational programs and research grounded in STEM disciplines at College, and (c) are motivated to learn what is needed to enact these values with greater integrity within and across departments. In other words, she truly sees it as a community to be cultivated, not a vehicle to be exploited. She recognizes, however, that cultivating such a community in the current environment of competitiveness and multi-identity fractures, is no easy task. As such, she begins by working locally (with a defined group of people she knows and trusts) to create conditions that foster and support ways of thinking and acting that embody the values they all wish to promote.

An important move she makes is convening the group in a safe space where participants feel authorized to work collaboratively and become willing to try new things, make mistakes, and learn together.

[Having a separate space to do this work] confirms that there are things happening in all the schools that are connected and should be. It's okay to do that. The sky doesn't fall. You're not getting swallowed up. Your colleagues aren't going to think that you're a traitor to their school. You can do this. I also think it's a space where people can dream a little bit and can be a little more experimental...risk taking has no penalty. Making mistakes is okay here. (IDI2: 1055)

She tries to make the space safe through a variety of actions. First, she gains explicit authorization from participants' deans and does so in a way that legitimizes a certain level of autonomy for the participants (e.g., "the faculty knew that the deans were fine with whatever was happening, that the participants were being left to their own devices and I was really going to be the organizing leader of it." (IDI2:1033)). Second, she draws on knowledge of faculty work and commitments, gained through her process of "working locally" with people across the different schools, to identify people whom she knows she can trust, know they

can trust her, have demonstrated a commitment to interdisciplinary STEM through their own work, and are excited about the idea of co-constructing a shared vision for interdisciplinary STEM. Additionally, she provides administrative support for the work of the group, including assigning a graduate student to help write the concept paper and working with the group to develop a job description for a dean's fellow she hopes to fund to provide additional support in the future. The assignment of these resources both signals Sherry's commitment to the workgroup and acknowledges the 'underpaid and overworked' climate in which they are operating. Finally, she provides lunch and coffee for longer meetings, a luxury that does not go unnoticed in the financially constrained environment.

Explaining her commitment to keeping the space 'safe' and introducing some validation that faculty recognize and share this commitment, she offers the following reflection:

I've tried to position myself in those meetings as really facilitating the discussion and only intervening if it's really sliding off the precipice...I enjoy experiencing faculty being faculty and not feeling like they have to put on any other kind of hat or that they have to protect. I mean, they probably are. But that there are certain things they don't have to protect in that space. A good example of that is when that department chair at the very end of that meeting talked about the lab thing. I knew the dynamic. I knew people were mad at me and they were probably not going to say it. But I'm like, "Good, then let's put it out there." (IDI2:1071)

I observe Sherry employing this facilitative style in a number of workgroup meetings. She draws out themes in the discussions taking place and offers suggestions for keeping these connected to larger processes, often providing very concrete examples to help faculty understand what kinds of inputs would be most useful for shaping decisions being made in larger circles. For example, in one meeting I observed she interjects,

This *conversation about connecting things* is bigger than STEM. But if we can identify some specific needs here, it will feed into that [conversation]. For example, it would help to know things like: (a) I spent eighty hours

organizing housing for my summer research program, (b) being on panels is how we learn to write grants that win (e.g., NSF), and (c) these are the areas where we see duplication of efforts (e.g., too many faculty figuring out how to find food and housing for students). (OBS: S1a15)

Also, after the meeting referenced at the end of the comment (not directly) above, a meeting at which I was present, I learn from Sherry that the “lab thing” relates to a question that had been raised recently by senior leadership requesting closer examination of how the institution is thinking about the role of labs in the curriculum and associated implications (compensation structures, funding for equipment, course credits, etc.). According to Sherry, many in STEM departments immediately interpreted this email as questioning the place of labs in the curriculum (i.e. questioning their value). The person who raised the issue in the workgroup very likely understood that it was a volatile and potentially disruptive topic. The fact that he did not raise it until the very end of the meeting suggests his respect for this workgroup as a separate space for a different way of working. The fact that he raised it at all suggests he either believed or wanted to test that this is a safe space where all relevant questions and concerns can be raised. Sherry’s response in the meeting was not to table it for another time or close it down. In my observation notes I document the incident as follows:

Faculty: looking at credit hours for labs. I spend a lot of my budget on it. I need to know why you’ve asked your office staff to look at this?

Sherry: I sent a follow-up email asking people to submit this information. Maybe look at variable credits based on hours. Maybe allow lab without lecture. We need to look at these kinds of things. This workgroup is a good place to look at them because there is good representation in this group. Things to take forward: (a) Data collection project, (b) Creative looking at labs, (c) Continuing to work on concept paper.

Sherry: Let’s not lose the rigor. Interdisciplinary should not mean not rigorous. There’s got to be a way of emphasizing opportunities at the intersections and spaces between departments without losing emphasis on unique, rigorous offerings by each department. (OBS: S9-14-15)

Sherry begins her response by referencing an email she had sent right before the meeting, which she realized that some people in the room may not yet have seen, in which she had explained the rationale behind the senior administrator's email causing the uproar (i.e. with that email, Sherry was trying to keep levels of distress in a productive range). In her comment (per the notes above) she also signals receptivity to discussing the issue in this forum ("this is a good place to look at this") reminding the group of its commitment to interdisciplinary dialogue ("because there is good representation") and frames what a generative discussion might look like in the context of this group ("Maybe look at variable credits based on hours; maybe allow lab without lecture"). She then adds the topic to the summary of items to carry forward for the group ("creative looking at labs").

Finally, in the last segment of the notes excerpt above, she reinforces her valuation of both (a) the unique contributions of individual departments ("without losing emphasis on unique, rigorous, offering by each department") and (b) the synergies that can be achieved by working together ("opportunities at the intersections and spaces between departments"), while directing attention to the learning that is needed by the group to figure out how to do this ("Interdisciplinary should not mean not rigorous. There's got to be a way..."). Her choice of words "There's got to" suggests that she does not have some predefined notion of what that looks like, but that the work of the group involves figuring it out. During our second interview she similarly advocates for "thinking about being interdisciplinary in a way that is respectful of disciplinary boundary" (IDI2:410). The complexity in this way of thinking is in the acknowledgement that each part of the larger system (each discipline), as currently defined and conceptualized, is likely to be missing something of value to itself, and, as such, can most likely benefit from developing in ways that are informed by something

beyond its own logic, especially by a specific something that relies on its contribution for success (e.g., an interdisciplinary project). Similarly, the system as a whole, as currently defined and organized (e.g., interdisciplinary project), is likely to be wrong in some way about what it believes will best support its success and, as such, can benefit from attending more closely to the local logics used by its constituent parts who rely on that larger system for their success. Thus, each (discipline/interdiscipline) can draw knowledge and perspective from the other that both strengthens itself according to its own logic, and grows its understanding of its place in the larger reality.

DYNAMICALLY CONNECTING WORKGROUP ACTIVITIES TO LARGER PROCESSES.

Sherry makes deliberate efforts to keep the workgroup dynamically connected to other key happenings in the environment. She describes to me and to the workgroup participants how she sees the examples and outputs emerging from the interactions of this group serving as useful inputs to a number of key planning and change processes currently underway. For example, on the second day of the STEM retreat I observe, in response to one participant's question "Could we position ourselves as a research center" she replies:

This is what I want to do with this process. My intent is to have some external vision for advancement, then an internal vision for us. I want us to get this concept paper together in time to give to give to the provost so she has it while the strategic planning work is going on this Summer...Let's align trajectories so when we put in work it's pointed in the same direction. Let's get into the habit of having conversations across departments where we make strategic requests with known tradeoffs. It would be great if this group can meet two times per semester to think strategically about the budget. My office gets budget sheets and looks at capital requests. Consistency in message and in work we do will shape how people talk about it but that will take time. Having a common story and identity will help weather leadership changes because that's a practice that will promote institutional memory. (OBS:S1B-33)

This framing comment is rich with remarks pointing to larger themes in the data showing how Sherry describes, or enacts, her plans to engage this group in working in ways

that are both connected to the larger landscape in very dynamic, mutually informing ways, and meaningful in themselves, regardless of what unfolds around the group. In the following paragraphs I unpack some of these themes.

First, Sherry mentions wanting to produce an “external vision for advancement,” or a concept paper in which priorities for research, program development and funding are documented and justified in the context of internal capabilities and interests, as well as market needs and research. Sherry speaks frequently in the interviews about the need to work more collaboratively with advancement to create a shared vision for investment priorities in the area of interdisciplinary STEM. Embodying this value, she invites representatives from the offices of advancement and external funding to join the group for the part of the first day of the STEM Retreat I observe. During these conversations the administrators provide an overview of the ways they see the work of their office intersecting with faculty efforts to fund their interdisciplinary research and education programs, and the group asserts its commitment to working more proactively with these offices.

Second, Sherry communicates plans to share the same concept paper with the provost “so she has it while the strategic planning work is going on this summer.” Here and elsewhere Sherry indicates her intent to leverage her relationship with the provost to provide faculty with a voice at the strategic planning table. Highlighting her recognition of the symbolic value this holds, and of the way that the process itself is more important than the outcome, Sherry comments, “I think it's important to have a process where faculty are making recommendations that may or may not come to fruition, but they're at least having some input in terms of their expertise around areas of opportunity for College” (IDI1: 1289). This issue of faculty voice ties to the faculty identity fracture theme discussed earlier.

Third, Sherry's suggestion that the group "meet two times per semester to think strategically about the budget...[and look] at capital requests" encourages the group to capitalize on its collective knowledge base in order to prioritize capital funding requests in an environment of limited resources. Elsewhere she suggests that the workgroup similarly draw on its combined resources to develop outputs that might be useful to other institutional planning processes and change initiatives including the research workgroup, deans planning discussions, and retention committee work, among others.

Fourth, Sherry draws a distinction between the "external vision" for advancement and the "internal vision" she wants the group to develop for itself. She explains that part of this internal vision is a shared identity; or common understanding of what STEM at College represents, and a sense that they have a place in that construction and community. This internal/external distinction illustrates how Sherry illuminates for others how different layers of constructed reality serve different purposes and can be deliberately shaped in ways that benefit the community and its members. In the quote above, she speaks to the value of developing a shared perspective on the work and nature of the community with her remark "Having a common story and identity will help weather leadership changes because that's a practice that will promote institutional memory." Notably, lack of institutional memory is a theme that runs through discussions in the STEM Retreat I observe. According to participants it manifests in such forms as reinvention of the wheel (e.g., finding ways to feed and house students brought on campus for interdisciplinary summer programs) and intermittent support for interdisciplinary research and programs. Sherry recognizes that building both institutional memory and layers of faculty identity that span disciplinary boundaries are objectives that hold particular relevance at this "eye of the storm" moment in the organization's history.

Fifth, Sherry encourages the group to begin practicing, on a day-to-day basis, ways of thinking and acting that embody the interdisciplinary values they seek to move the community toward. Specifically, she entreats, “Let’s align trajectories so when we put in work it’s pointed in the same direction. Let’s get into the habit of having conversations across departments where we make strategic requests with known tradeoffs.” These alignments of activity, Sherry explains elsewhere, which she expects will be both informed and made more visible by the vision document, hold strategic potential for building integrity around the institution’s story of STEM at College. The need for adaptive work in this area is evident in some of the quotations shared earlier in this chapter and underscored by the following entry in my observation notes:

Discussion of difference between lip service and what we actually do. Faculty say we support STEM; alumni aren’t sure. Different kinds of funded programs exist now or happened in the past; how do we better function in support of system-wide STEM. STEM is faculty advocated but not supported system-wide. Currently bottom driven, isolated, in vacuums. Support has wavered over time. (OBS:S1b25-29)

Looking across the five themes above, we see how Sherry works to shift both patterns of thought and activity being practiced by members of the STEM community (reality: “align trajectories”) and perceptions of the intentions, accomplishments, and priorities of this community that are held by the STEM community (story: “internal vision”) and those outside of it (story: “external vision”). She seeks to engage in practices that produce outputs of value to both the STEM community (shared identity; strategic capital requests with known tradeoffs) and the broader community (inputs to strategic planning, deans’ discussions, etc.). In addition, she acts to establish lines of communication (and influence) between the STEM community and the larger College community.

EMERGENCE OF NEW POSSIBILITIES.

Sherry believes that the knowledge and outcomes needed to progress the community toward its values will emerge from the group process if participants work in ways that embody the collaborative values they seek to promote. She explains,

My instinct is that things will emerge out of this working group process that we may not have really been able to imagine...I'm not so concerned about either imposing or driving it in a particular direction yet. I think they're just getting a handle on operating as a group that is thinking about bigger vision types of things. They need time to work out things like...“What do we need to know to figure out if what we think we're doing is really good and to figure out what we should fix and then where we could head? Well, we need data. All right.” This data-tracking project that they're talking about doing, I think is really great. All of that is getting the information that we need so that everyone is equally well versed in the big picture. Once that happens, I suspect some things will come out of that that will really point people in certain directions that are bigger than what the conversations are currently. (IDI2:513)

In this quote we see Sherry articulate her expectation that good things will emerge, including things they “might not really have been able to imagine”; and that it will happen in part because she is not “imposing or driving it in a particular direction yet.” Also, because she is giving participants “time to work out things,” like which goals and priorities they want to set for themselves and why. In this way of understanding the group process, we see Sherry's willingness to actively embrace some larger (yet-undefined) vision of what is possible (a complex-thinking trait) and move toward that vision by engaging the group in the kinds of collaborative activity that she believes will expand their collective knowledge base, build their collective capacities to think more broadly about the issues, and create a larger shared frame of understanding. These different forms of learning, she believes, will provide a larger frame of reference, and an expanded set of entry points for co-constructing a more definitive set of goals and directions, which can guide the next round of movement into the partially known future and continued growth of the collective knowledge base.

Drawing on this perspective of the group process, Sherry explains that desired outcomes and directions should be offered to the group clearly up front, but not in ways that overdetermine form or content. For example, she describes the need for a concept paper and charges the group to produce one. However, she draws heavily on the group's input and past work to progress its development. Also, she believes that directions should be broad and flexible, with opportunities for the group to adjust as learning takes place. For example, she emphasizes thinking about the concept paper as a "living, working document ... [that we can] evolve over time" (OBS: S9-4). Similarly, when the group begins discussing areas of priority for funding and development of interdisciplinary programs (themes) to incorporate into the concept paper, one participant interrupts to suggest that they first define a "litmus test" for calling something a "theme." This is a great example of how the conditions Sherry establishes based on her understanding of the collaborative process, enable and motivate participants to actively take part in defining goals and standards for the group, while working within the broad boundaries she establishes.

The complexity in Sherry's view of this process is evident in her emphasis on process first, goals and outcomes second. It's not that she believes goals and outcomes should not be established or articulated up front; rather, it's that she believes the larger set of goals and outcomes required for the group to fulfill its purpose depends, in part, on the way that purpose is defined, and that that definition needs to emerge from the process of engaging in the learning necessary to enact the values shared by its members. She also believes that the outputs generated by collaborative activity should be used to guide subsequent activity and to gather feedback (from the group itself and from outside sources) to be used in defining subsequent goals, outcomes, and definitions of purpose. Another way of thinking about the complexity in this formulation is that she co-locates authority for determining what is right

and true about the group, its activities, its members, and its outcomes in herself and in the community, where the community includes both the STEM workgroup (which she plays a role in facilitating) and the larger College community (with whom she plays a role in establishing mutual path of influence on/by the workgroup).

PERCEPTIONS OF PROGRESS TOWARD BROADER ENACTMENT OF SHARED VALUES.

While it is not my intent to assess the effectiveness of Sherry's strategies or the effects of her actions on the community, it is worth pausing to note what Sherry and others perceive to be happening, and how they understand Sherry's actions to be contributing to those effects. I begin by sharing a sampling of comments made by participants in various STEM workgroup meetings and associated events I observed. I present these in Table 23 below. None of these comments are elicited in any way by Sherry or myself. They occur spontaneously and, in several cases, with notable presence or enthusiasm.

Table 23. Community Feedback About STEM Workgroup Gatherings and Outputs.

No.	Participant Comment	Event
1	<i>Participant:</i> I'm so grateful to Sherry for bringing this group together and creating the spaces for us to reconnect with why we came here and what we love and our identity as scholars. We're getting different messages from leadership, e.g., cutting budgets, changing courses we teach to align with what the curriculum needs, reduced contributions to IRAs etc. these kinds of gathering and spaces are so important and I really appreciate them (OBS:S1A-11).	June 8, 2016 STEM Retreat
2	<i>Participant:</i> Its funny (pause) what just happened to us? I don't know how to name it. We're sitting here together and now were asking how can we find something to work on together (OBS: S1b43).	June 9, 2016 STEM Retreat
3	<i>Participant 1:</i> There's another benefit to doing this. I usually work in isolation. Right now I don't feel so isolated. This is the most exciting thing in these two days. Getting data and raising money is great but this is fun! <i>Participant 2:</i> Why? <i>Participant 1:</i> Because we're building an interesting intellectual community. It opens avenues of brainstorming because we then ask what can we do together? (OBS: S1b45).	June 9, 2016 STEM Retreat
4	<i>Participant:</i> Every time I'm in a meeting like this I'm struck by Sherry's foresight to bring us all together. I'm learning so much about other things already going on e.g., it's great to see A. here. It's giving me more ideas about more conversations I want to have (OBS:S5-20).	Aug 24, 2016 Meeting to prepare for STEM Panel
5	<i>Workgroup member speaking on STEM panel:</i> It's a joy to be here and a joy to be in the process of preparing with colleagues. I have appreciated Sherry's understanding of health sciences as STEM. The deans have really supported us in collaborating and have created an environment where these collaborations happen easily. This is not something you regularly find (OBS:S8-2).	Sept 8, 2106 STEM Panel (public)
6	<i>Sherry:</i> We got some fantastic feedback from people in the room at the panel. People from [pharma company] talked about how interconnected were the people in the room and the evidence presented. Message from advancement person that they were blown away by what you did (OBS: S9-2).	Sept 29, 2016 STEM Workgroup Meeting

The first comment is made to me during a sidebar conversation initiated by a workgroup participant during a break in the first day of the STEM Retreat. In his comment, this participant highlights three aspects of the gathering that he finds particularly gratifying: 1) value of having a space to come together as a community, 2) the value of having the opportunity to reconnect with his scholar identity, and 3) the counter-cultural nature of the opportunity.

Participants in the STEM retreat share the second and third comments on day two of the STEM retreat. Notably, this meeting represents just the third time the group is formally gathering as a community. Comment two follows a high-energy exchange in which participants first begin discussing themes (at Sherry's suggestion), and then, after a process intervention by one participant, move into a discussion of what criteria they might use as a "litmus test" for a theme. The comment is interjected spontaneously with (as I documented in my notes) "real in-the-moment presence." (OBS: S1b43) The participant's question, "What just happened to us? I don't know how to name it" speaks to her sense of the novelty of the experience and the unexpected nature of the outcomes that seemed to be emerging. The third comment ("There's another benefit...") validates the value of this gathering for counteracting the culture of isolation at College and for engaging faculty in productive work despite such contextual thwarts ("I usually work in isolation. Right now I don't feel so isolated...this is fun!"). It also speaks to the experience of building a shared identity ("building an interesting intellectual community") and the way in which coming together has, in this participant's view, sparked new ways of thinking ("It opens new avenues for brainstorming because then we ask, what can we do together?").

The fourth comment points to the perceived learning taking place in the meeting ("I'm learning so much about the other things already going on") and connects it to

“Sherry’s foresight to bring us all together.” This speaker reports that learning about each other’s work is making visible to her new ways of thinking and acting (“it’s giving me more ideas about more conversations I want to have”).

The fifth statement was made by a workgroup participant as her opening remarks in the STEM panel event. With this comment, she publicly broadcasts her appreciation for Sherry’s inclusive scoping of STEM and alludes to a larger cultural shift taking place at College. It’s unclear from her comment if “the deans” refer specifically to Sherry and this participant’s own School’s dean (who Sherry gained support from to have this faculty participate in the workgroup) or if it refers to the broader shift in leadership values I discussed earlier, such as in sections outlining the provosts contributions to this value shift.

In the sixth comment, Sherry shares with the STEM workgroup feedback she received from people who attended the STEM panel event. The attendees’ perception of the “interconnectedness” of the panelists is notable in light of the short time that this workgroup has been together. This likely reflects, in part, Sherry’s orchestration of careful preparation for this event. This included offline conversations with member of the workgroup, one STEM workgroup meeting during which a general strategy for approaching the panel was discussed and suggestions were made for how individual stories might be combined to communicate larger themes, and a second workgroup run-through meeting in which participants refined their stories and confirmed the panel as a whole covered the points they wanted to make. The interconnectedness comment is particularly noteworthy in the context of the following entries in my observation notebook from early in the first STEM panel prep meeting:

Sherry: What we do well: mentoring, interdisciplinary, research, comm eng. Was originally thinking one person per theme. But now thinking can each of you tell a story and flag how that story touches on these different areas? Talk

about the complexity of the way we do things and how it cuts across these different strength areas.

Process note: Group exchanges various ideas about stories they might tell. Comment on each other's suggestions. Making sure not leaving out parts of the pipeline. Making sure not telling duplicate stories – emphasizing different aspects. (OBS: S5-6)

Here we see how the conversation in the early part of the meeting inspired Sherry to shift strategies, moving away from the idea of having each person illustrate one theme and instead suggesting that all the themes be presented up front (in Sherry's framing remarks, which I observed at the Panel event) and then have each panelist "flag how that story touches on these different areas." Sherry's intention that they "talk about the complexity of the way we do things and how it cuts across these different strength areas" seems to map closely onto the attendees' reported perception that the stories felt "interconnected."

Sherry's hope is that, as did her reconstruction of the dean's office team, the activities of this workgroup will serve as a catalyst for movement of the broader community toward more interdisciplinary ways of thinking and acting. It can do so by serving as a model, symbol, attractor, foundation, and object for reflection and renewal. Even in the short time that I observed this process, a degree of progress in this direction seems to have been made as supported by the comments above. I close with Sherry's own reflections on her leadership:

There are so many things that are coming back to what I thought I would be doing when I got here that I had to give up. I mean just from my own perspective in terms of successes. I think some of it was really looking at where do I see the most resonance? Where do I see the most bubbling up and with other varied stakeholders that it looks like there's traction? Some of the work that I'm doing is really just pulling together the threads that were already there and presenting a new framework for thinking about it that was self-evident but just needed to be named in a particular way...The serendipity of the legislators coming to College [to discuss STEM] is mind boggling because it speaks to our readiness to demonstrate our innovation. We've done the back labor, we've got the people on board, we've shown

some progress and momentum, and it's being noticed. It was reading the tea leaves that were there, like pulling the STE(A)M out of STEM and doing the A separately...Some of this has been for me course correcting and not being as fixated on the things that I don't want to give up because I want to do them and I think they're important. If it's not working, it's not working. I just have to let that go and realize that we're really not quite there yet. But let's build a capacity here. Then maybe, in time, we can progress to that stage and if we don't, we still have this good thing that we're doing over here. (IDI3:748)

In this comment Sherry shares her belief that her strategy is yielding success, especially (according to this particular comment) in the area of readying the community for whatever future may come. Notably, she attributes her success to decisions she made along the way to “give up” something important to her, something that was fundamental to her understanding of what was right and good for the community and for her success and integrity as a leader. However, by “reading the tea leaves” and recognizing a lack of readiness in the community to take up her ideas in their current form, she takes on faith that there is something beyond her self-authored construction and looks to the environment for cues as to what that might be. When she finds the organization is not ready for her ideas in their current form (e.g., STE(A)M), she redefines both her ideas (STEM), and the organization (“We’ve done the back labor, we’ve got the people on board, we’ve shown some progress and momentum, and it’s being noticed”).

In the end, Sherry seems to have let go of her *pre fixe* offering, crafted to fit a particular cuisine, and moved toward an *a la carte* approach in which the community provides the cues as to which and how much of the different menu items it is ready to incorporate into its meal. Over time, this feedback, including requests for items not yet offered, expand and reshape the menu in ways that extend outside the boundaries of the initial cuisine. As a result, a richer, more culturally diverse, more nourishing, more exciting offering becomes possible. As Sherry gathers with the community to break bread over the meals they have

constructed together, they grow their sense of belonging, their understanding of each other's ways, and their vision for a more welcoming and invigorating future.

Chapter Summary

As before, I precede my summary with a table reminding the reader of the scope of detailed analysis presented in this chapter to be summarized in this section (see Table 24).

Table 24. Scope of Analysis by Entry Point for Sherry's Case.

Entry Point	Scope of Analysis
<i>Major Finding</i>	Standing in the eye of an extended organizational upheaval, Sherry works to address multiple, intersecting <i>identity fractures</i> through intentional, symbolic, context-attuned actions that both embody & enable deep learning, mutual-trust & sustained commitment to larger shared goals; thus she engages the community in a process of readying itself for an uncertain future while shaping the very fabric of what is true, possible & likely.
<i>Lines of Work</i>	DOMAIN: BROADER ENACTMENT OF INTERDISCIPLINARY VALUES • Rebuild & re-energize Arts & Sciences School (Foundation Work). • Illuminate & reanimate commitment to interdisciplinarity.
<i>Key Strategies</i>	• Cultivate strategic relationships founded on trust. • Create conditions that enable broader enactment of interdisciplinarity & collaboration
<i>Adaptive Challenges</i>	IDENTITY FRACTURES • Other-constructed narratives create mismatches between perceived & actual leadership capabilities. • Massive reorganization & widespread layoffs have left faculty feeling overworked & underappreciated. • Culture of competitiveness, isolationism & self-preservation thwarts fuller embrace of shared values. • Uncertainties surrounding current & future institutional identities widen fractures caused by historical events and hinder broader enactment of shared values.
<i>Action Scenarios</i>	• "Cracker jack team" • In-house social media strategy • Program director's meeting • Interdisciplinary STEM workgroup & concept paper

In this case, we see Sherry working in intentional, symbolic, and context-attuned ways to address two lines of adaptive work related to catalyzing broader enactment of interdisciplinary values (see Focal Work Domain). The first line of work involves rebuilding and re-energizing the Arts & Sciences School after an initial wave of “seismic” organizational upheaval, in which major programs, or parts of programs were moved out of her school causing widespread distress and disruption (See Line of Work #1). The second line of work involves illuminating and reanimating commitment to interdisciplinarity values across the College community (see Line of Work #2).

We examine how, in pursuing these lines of work, Sherry applies two key strategies using complexity, both of which involve creating conditions and developing capacities that invite, enable, and amplify cross-boundary, collaborative work, or otherwise develop and harness strengths of individual people and organizational units in service of clarifying and advancing their separate and shared goals and values. Specifically, we first see her pursuing what I call foundational work, which, to a large extent, involves developing a multilayered network of strategic relationships founded on mutual trust and collaboration. The complexity in her approach lies in the way she leverages knowledge of people’s constructed lenses on the world to intentionally demonstrate ways of thinking and acting that hold particular value as symbols and models of collaboration; and in the deliberate reach of these relationships outside her own School and College (see Line of Work #1, Key Strategy). Drawing on, and further nourishing these relationships, we also see her creating conditions (e.g. safe space, resonant scope, authorizing environment, alignment with strategic priorities, etc.) designed to support emergence of new ways of thinking and acting, which embody and enable broader enactment of interdisciplinarity and collaboration (see Line of Work #2, Key Strategy). Here again the complexity is evident in her awareness of, and intentional efforts

to operate on different constructions of reality, as well as the way she seeks to embrace and learn through ambiguity, rather than resolve it, by engaging with local and larger work streams as mutually informing elements of larger change processes encompassing both.

We see Sherry conceptualizing the adaptive challenges she faces largely in terms of what I call identity fractures. These represent various forms of value-reality gaps in which different identity constructions (e.g., individual, institutional), or parts of these constructions (e.g., personal, professional, disciplinary, School) are seen as being mismatched in how they are held, reported, perceived by others, or acknowledged by others. For example, she diagnoses her own leadership identity fracture as a situation in which narratives constructed by senior college leaders (through words and actions) have created such a mismatch between (powerful) others' perceptions of her as a capable leader, and her own understanding of herself as a capable leader (See Line of Work #1, Adaptive Challenge 1). She also diagnoses various forms of faculty identity fractures, recognizing how massive reorganization and widespread layoffs at the College have left many faculty feeling overworked, dislocated from their home schools, and undervalued as knowledgeable contributors to the core educational mission and larger arc of institutional development (see Line of Work #1, Adaptive Challenge 2).

Additionally, we see her describe a culture of competitiveness, isolationism and self-preservation, and notice how it promotes over-identification with individual schools and departments and otherwise thwarts inter-unit identity formation and collaboration (See Line of Work #2, Adaptive Challenge 1). Finally, we see her noticing how uncertainties surrounding current and future institutional identities widen the other identity fractures outlined above, a reality which Sherry believes thwarts wider expression and amplification of locally held interdisciplinary values.

As Sherry seeks to advance the lines of work outlined above and, in the process, heal the kinds of identity fractures just described, she engages with the community in various ways aimed at demonstrating, enabling, inviting, and sanctioning more collaborative approaches to thinking and working together, that honor and acknowledge participants' entering needs, values, and identity constructions, while situating these concerns in larger frames of meaning and connecting them to larger streams of activity, thus promoting greater integrity of valued existing identities, and opportunity to embrace more expansive, multi-dimensional, shared identities. For example, in the wake of downsizing after the first restructuring, she rebuilds her dean's office team through intentional efforts to recruit and socialize for values of mutual trust, collaboration, continuous learning, and long-time horizon, thus offering a symbol and model of a highly effective collaborative unit emerging from a firestorm (see Line of Work #1, Action Scenario 1). Also, when she encounters resistance to her early overtures to collaborate with marketing, she pursues a paradoxical strategy of building an in-house marketing function to demonstrate value and capability of her team and attract future collaboration with marketing and other organizations (see Line of Work #1, Action Scenario 2). Additionally, attending to particularities of the situation in a context of shared values, in one meeting with her program directors, to which she invited a senior leader as a guest, both in preparation for, and during that meeting, she establishes conditions that promote deep, mutual learning and trust (see Line of Work #2, Action Scenario 1).

Finally, after continually (re)calibrating how she applies her big vision way of thinking to promote adaptive change beyond her organizational unit (e.g., starts with direct strategy, shifts to locally controlled, self-contained, and foundational strategies) she perceives a convergence of factors signaling a shift in receptivity of the environment to her more

collaborative approach, reconceives the current moment in her leadership trajectory at College as the beginning of a ‘new era’ and switches strategies again to embrace and leverage these more favorable conditions. Specifically, she marries her own interest in convening workgroups to discuss interdisciplinary aspects of College educational model, with the provost’s desire for concept papers that concretize emerging priorities, to initiate a workgroup focused on STEM at College. She leverages carefully cultivated relationships to recruit participants, sanctions collaborative work via conversations with their deans, establishes an initial charge for the group (e.g., prepare a concept paper for interdisciplinary STEM), and then proceeds to organize, facilitate, and develop the group in ways that invite, sanction, and enable co-construction of the goals, identity, purpose and priorities of the group. She performs light facilitation within the group, but sees her long-term role mainly as keeping the group connected to larger streams of activity (e.g., ongoing strategic planning) so it can both adjust to, and shape those efforts (see Line of Work #2, Action Scenario 2).

Looking across the diagnostic and engaging activity in this case, we see that Sherry remains continually attuned to the larger purposes she is pursuing, the shifting realities characterizing local and larger environments, the ways that she and others construct understanding of those realities through multiple, often unconsciously held lenses, and opportunities to leverage particular relationships and circumstances, in moments when issues are ripe and conditions are favorable, to pursue new ways of thinking and acting consistent with those larger purposes. We see her identifying and acting to promote symbolic meaning, working at multiple levels to heal identity fractures and expand identity constructions, and creating, through actions and artifacts, new narratives that align with and promote emergence of new realities she strives to bring about (see also Chapter 7).

Once again, I draw into a table, examples from across the case to provide a snapshot of how Sherry uses some of the specific forms of complex thinking defined in the literature (see Table 25). I again remind the reader that this table should not be considered a comprehensive review of all forms of complex thinking used by Sherry, nor mistaken to suggest a linear relationship between the exercise of specific forms of complex thinking and specific actions in the world. Rather, it is provided to direct readers' attention to different sections of the case they may want to revisit to examine how Sherry's uses of these different forms of complex thinking contribute to the larger set of dynamics shaping her understanding, decisions, and actions, as discussed in the case.

Table 25. Sampling of Case Elements Illustrating How Sherry Uses Different Forms of Complex Thinking That Scholars Have Associated With Tier-Three Levels of Thinking Complexity.

Form of Complex Thinking	Sherry's Uses in Adaptive Leadership Practice
<i>Dialectical thinking</i> Basseches, 1984; Kegan, 1982	- Views STEM workgroup and College strategic planning process as mutually constituent elements of larger process of institutional development; Establishes connections between these activities and leverages two way flows of information to evolve both initiatives in ways that attend to priorities and learning produced by the other and both. - In conversations with provost, sees her own and the provost's goals and activity streams as mutually informing elements of larger shift toward broader enactment of interdisciplinary values at College.
<i>Generative learning within ambiguity</i> Nicolaides, 2008, 2015	- Convenes group of receptive faculty to help co-construct vision for STEM at college, thus offering opportunities to provide input into larger processes shaping an unknown future while building new relationships and identity structures that prepare them for whatever future may come. - Wondering how to best support the administrator in her office who was relatively new at the time of the seismic reorganization, Sherry says to herself "if we can <i>figure out our way through</i> this we are going to be a particularly unstoppable team" - Specifically hires staff who are "equipped to respond to crisis and respond professionally and thoughtfully"; expects herself and her staff to "<i>manage crisis through</i>, rather than [allow it] to weigh people down so we can't <i>navigate through</i>."
<i>Integrative awareness</i> Berger, 2012; Torbert, 1989, 2004	- Sherry's description of the many layers of identity, and forms of identity fractures shaping the attitudes and actions of participants in College community cut across all of Torbert's fields of inquiry (1st person/I: Sherry's identity fracture; 2nd person/we: shared interdisciplinary STEM identity; 3rd person/they: Faculty identity fractures, institutional identity fractures) and at least three of Torbert's territories of experience (First territory/outcomes: effects of these different fractures on Sherry and the community; Second territory/behaviors: faculty competitive behaviors and disengagement motivated by fractures; Third territory/structure & content of knowing: seeing identities as constructed and shapeable) - In the program director's meeting, Sherry establishes conditions that promote deep, mutual learning that she describes in a way that similarly cuts across multiple fields and territories (as specified in the chapter).
<i>Use of external reference points</i> Kegan & Lahey, 2016	Cultivates relationships and alliances with people outside her School, including senior administrators within her College, senior administrators at Peer Colleges, among others; uses these relationships not just in instrumental ways to achieve existing goals, but to shape understanding of what's needed and possible, for herself and her institution.
<i>Goal reflexivity/ Double loop learning</i> Torbert, 2004	- When more direct strategies for contributing to College- and sector-shaping change fail, adjusts her approach to pursue more self-contained, locally controlled, and foundational strategies. When the environment shifts (new provost) she constructs yet another new set of goals and strategies to guide her work. - Allows program director's meeting with the senior administrator to unfold in unexpected ways, shaped by her staff's willingness to be vulnerable with this administrator in front of her. - Supports unfolding of STEM panel preparation discussion in direction that deviates from her plan to have different participants emphasize different themes; endorses decision to present more interconnected/interwoven stories.

Chapter 7.

Discussion

I began my study with the aim of producing rich, interpretive descriptions of how three, proven adaptive leaders in higher education draw on complex thinking to understand and carry out their adaptive work. As outlined in Chapter 3 (Methodology), I designed the study to support development of an empirically grounded, dialogic text offering multiple, concrete entry points for examining what the intersection between complex thinking and leadership action looks like for three complex-thinking individuals practicing adaptive leadership in actual work contexts; and for exploring some of the particular ways that structural complexity manifests through the internal and external activities comprising these participants' adaptive leadership practices. These activities include such things as: identifying and illuminating widely held values in the community, diagnosing factional and other dynamics in the system, identifying the adaptive challenges thwarting realization of shared values, crafting and carrying out strategies for directing the community's attention to these problems, engaging the community in the learning and other work required to address those problems, maintaining productive levels of distress, and staying alive in the process.

In the case analyses just presented (Chapters 4-6), I explored how these intersections operate for participating leaders as they carry out multiple, intertwining, multi-year, boundary-spanning courses of action aimed at helping their communities (a) develop a deeper, clearer understanding of their most fundamental, widely shared values, and (b) engage in the learning needed to shift their reality in value-aligned ways. Table 26 below provides a summary of the specific lines of adaptive work discussed for each of these

leaders, along with associated key strategies, adaptive challenges, and action scenarios used in this dissertation to illustrate the many ways that they apply complex thinking in these different aspects of their leadership practice. I provide this table as a reference for the reader and a reminder of the scope of adaptive work being pursued by these leaders and examined in this study.

Table 26. Major Finding and Summary of Entry Points for Examining the Lived Leadership Practices of Three Participating Leaders.

	Harold	Janine	Sherry
Major Finding	Working within & across multiple levels of the system, in an effort to promote efficiencies, synergies, & sustainability, Harold continually encounters different forms of part-whole tensions which he understands as multiple, embedded, value-reality gaps & approaches as leverage points for amplifying collaboration toward greater alignment of the parts in service of transformation of whole.	Moving between, engaging & interconnecting multiple internal & external constituencies, Janine encounters a series of critical ambiguities that she interprets as value-reality gaps & addresses through context-attuned, decisive & creative actions that flow from a convergence of priorities & create conditions for emergence of strategically-aligned, community-defined outcomes.	Standing in the eye of an extended organizational upheaval, Sherry works to address multiple, intersecting identity fractures through intentional, symbolic, context-attuned actions that both embody & enable deep learning, mutual-trust & sustained commitment to larger shared goals; thus she engages the community in a process of readying itself for an uncertain future while shaping the very fabric of what is true, possible & likely.
Lines of Work	DOMAIN: STRATEGIC BUDGETING - Foster more strategic budgeting practices - Secure adequate funding now and later	DOMAIN: INSTITUTIONAL DEVELOPMENT - Clarify & advance mission of whole student dev. - Increase enrollments, endowment, & impact	DOMAIN: ENACTMENT OF INTERDISCIPLINARY VALUES - Rebuild & re-energize Arts & Sciences School - Illuminate & reanimate value of interdisciplinarity
Key Strategies	- Dynamically balance autonomy & oversight - Create shared frames & illuminate larger realities	- Engage & Reorient - Co-construct goals then dynamically interpret them in locally-relevant ways	- Cultivate strategic relationships founded on trust - Create conditions that enable broader enactment of interdisciplinarity & collaboration
Adaptive Challenges	PART-WHOLE TENSIONS - Presidents' 'fiefdom' mentalities thwart fuller embrace of system governance responsibilities and hinder collaborative efforts. - Fragmentation of Trustee loyalties and fluctuations in Board capacity block wider engagement in adaptive work. - Key constituencies hold narrow or untested perceptions of the realities facing the university system, thwarting trust and collaboration. - Key constituencies uncritically view sector innovations as 'silver bullet' solutions.	CRITICAL AMBIGUITIES - Community wrestles with unanswered questions about the nature & success of whole student development (the 'unfinished experiment' in progressive education). "Solar System" leadership culture requires shift toward new, more adaptive model. Visions of this more adaptive model are yet to be crystallized. - Community lacks shared narratives about, and formal articulations of, the nature of College educational experience and its particular value/relevance in 21st century.	IDENTITY FRACTURES - Other-constructed narratives create mismatches between perceived & actual leadership capabilities. - Massive reorganization & widespread layoffs have left faculty feeling overworked & underappreciated. - Culture of competitiveness, isolationism & self-preservation thwarts fuller embrace of shared values. - Uncertainties surrounding current & future institutional identities widen fractures caused by historical events and hinder broader enactment of shared values.
Action Scenarios	- Budget Parameters - Timely Reframing Conversations - Business Association Alliance - Community College Partnership(s) - Industry Foundation Partnership	'Giving the work back' to College staff - Response to student manifesto on coal divestiture - Strategic planning process including: - Emergent outcomes - Shared, multi-year goals - Market positioning strategy	'Cracker jack team' - In-house social media strategy - Program director's meeting - Interdisciplinary STEM workgroup & concept paper

Drawing Out the Narrative Threads

I now draw out themes I find running through the three cases, which demonstrate commonalities in how these three participants consciously and unconsciously draw on their complex thinking capacity to understand and approach their work. Notably, in the process

of identifying these themes, I learned that the business of finding themes in lived practice is almost as messy as the business of living the practice. For example, toward the end of my analysis, pretty much everywhere that I looked for complex thinking in my data, I found it; and every time it showed up, it looked a little different, as shaped by such factors as situation, leader, context, timeline, history, participants, and others. Granted, my protocols were designed, and situations selected, to provide windows into aspects of practice that demand complex thinking. Nonetheless, the multiplicity and intersectionality of manifestations of complex thinking in lived practice cannot be overstated, and should be kept in mind as the reader strives to interpret and apply the themes presented below.

Also, the exercise of a strong 4 structure is evident throughout the data. This is not surprising, as each of these participants demonstrates 4(5) levels of thinking complexity. The 4 structure shows up in such ways as persistence of certain core assumptions held by participants about the world and how it can be improved (e.g., Harold's pace of innovation; Janine's understanding of institutions as human creations; Sherry's notion of what qualifies as big vision thinking). However, the participants' non-identification with these frame-creating core assumptions—their ability to “let them go” temporarily, or divorce them from their fundamental intentions in particular situations or at particular moments in their historical trajectory—means that they remain open for inspection, if not yet for transformation.

As I explain later in this chapter, much of the complexity I highlight in the cases can be explained using subject-object theory as manifestations of this differentiation of the Self from one's process of constructing meaning using systems-complex principles (which I refer to in the chapters as an awareness of the constructedness of all worldviews and the different lenses being applied by members of the community to make sense of situations and

leadership actions within them). While less complex thinking leaders can see the contents of their own and others' sensemaking processes (e.g., values, perspectives, worldviews) and factor that information into their decisions and actions, complex-thinking leaders can see, name, and operate on the lenses that they and others use to generate those contents, which means they can see and strive to influence the assumptions and meaning systems that define those lenses and keep them in place.

I also find cross-case evidence for various patterns of thinking and action that the literature associates with early tier three leaders, as called out throughout the cases and summarized in case conclusions. However, what became clear to me early in my analysis, is that there is not a one-to-one relationship between the exercise of certain forms of complex thinking (e.g., dialectical thinking, uses of metaphor, learning through ambiguity) and certain leadership actions or action strategies. The ways in which thinking and acting interact are much more organic, integrated, transitive, and multi-iterative than I had hoped (as a researcher seeking to trace clear process paths), but even more so than I suspected (given my experience interacting with complex-thinking leaders and my theoretical lens which elaborates a single, underlying structure giving rise to different forms of complexity). I found the theory of developmental action inquiry more useful for directing my gaze at the kinds of information and experience participants are paying attention to (e.g., territories, timelines) and how they are acting in the world to uncover and test that information. I found subject-object theory more useful for explaining why participants are paying attention to those things, and why they use that information in the ways that they do (e.g., logics of coherence, locus of authority, processes available for reflection). Putting these things together, the following emerged as salient cross-case themes in how participants use complex thinking to understand and approach their adaptive leadership practice:

Theme 1: Cultivate expansive multicentered intentions

Theme 2: Illuminate the invisible

Theme 3: Redefine and recalibrate

Theme 4: Keep things connected

Theme 5: Orchestrate co-construction

I elaborate each of these themes next, drawing selectively on findings and examples from the cases.

Theme 1: Cultivate expansive multicentered intentions.

All of my participants maintain, and strive to help others develop, a persistent focus on larger purposes, defined in reference to multi-year timelines or longer, and multiple, often embedded segments of the local and larger community. Keeping distant horizons in sight, they continually recalibrate goals and strategies (as described below) to keep the arc of movement of the community headed toward that horizon, while making choices at each leg of the journey about how to adjust goals and strategies to enable circumnavigation of hazards above (e.g., state budget allocation process; organizational restructuring) and below (e.g., organizational culture and identity) the water's surface. This can be described as regular engagement in double-loop learning, a form of learning described by Torbert (2004) in which gaps between goals and intended outcomes are resolved through changes in the goals themselves, not just the actions aimed at achieving those goals.

The Lines of Adaptive Work in each case (elaborated in the associated environmental snapshots) illuminate the deeper values, longer-term goals, and ultimate purposes framing participants' leadership practices, or represent concrete outcomes that are fundamentally linked to those values. Although discussed separately, the two lines of work presented for each case are understood and approached by participants as interdependent elements of an even larger process of promoting sustainable mission fulfillment and

leveraging institutional strengths to catalyze adaptive shifts in the larger regional, state, sector, and national higher education systems. Moreover, these aims exist as fundamental motivating factors and frames for evaluating action options, not simply features of their responsibility set or considerations in tactical analysis aimed at better achieving local goals.

This constant undercurrent of attention to larger, multicentered intentions became abundantly clear to me during the research process when each time I attempted to scope an action scenario based on the goals or issues being addressed through a particular project or initiative, I found those goals and that project being understood and carried out in ways that pointed back to these larger purposes. For example, I originally thought one of Janine's action scenarios (Line of Work #1, Action Scenario 2) was about promoting an adaptive shift toward more socially responsible investing. However, her engagement with students' adaptive leadership in that area transcended and incorporated that adaptive aim. She helped the students situate their line of work in the larger realities faced by the decision makers they sought to influence, and in the process, generated learning for the students, for herself, and possibly for the Board, and provided opportunities for everyone involved to ask different questions about how this and other extra-curricular activities relate to the mission of whole-student development.

Also, in each case I find the participant defining, in expansive and multicentered ways, the community whose thriving they seek to promote. This is perhaps most clear in my descriptions of Harold's diagnosis of part-whole tensions, however it holds true for all leaders I worked with. This expansive way of understanding the adaptive work is neither trivial, nor common among leaders, as underscored by several challenges described in this paper—e.g., Board fragmentation, presidents' fiefdom mentality, culture of competitiveness at

Urban College.¹⁶ The expansive aspect of this work definition is illustrated by my participants' explicit attention to aspects of sector and society-level wellbeing that represent the ultimate target of their adaptive efforts. For example, Janine seeks to help Rural College more clearly understand and articulate its progressive education model so that it can contribute meaningfully to sector-level discussions and innovations aimed at clarifying the role of this form of education in society, and harnessing its full potential. Correspondingly, Harold's efforts to catalyze innovation within the university system are largely aimed at ensuring continuation of broad access to transformative education and Sherry's adaptive energy is focused on promoting a more socially just society.

The multicentered aspect of participants' community conceptualizations is reflected in these leaders' continual relocation of the work at the center of different communities and sub-communities. For example, in addition to advancing societal level values, they also seek to define and advance values that they perceive to be widely shared within sub-sets of that larger community including: sector, liberal arts education, public higher education, public university system, college, school, and STEM community, and STEM disciplines. Notably, amidst this multicentered strategy I find them locating the primary center of their work with their own institution at the community defined one level *above* that institution. In other words, they don't seek to primarily maximize thriving of members of the organization in which they are situated as an administrator, or for which they are primarily responsible; rather they ask, how might we define and advance our values in ways that best enable our part of the system to offer its most valuable contribution to the larger whole of which it is a part, while doing so in a way that our community and its members will thrive in the process. As this questions is posed in service of developing all communities (society) in adaptive ways

¹⁶ In Chapters 7 and 8 I refer to Sherry's institution as Urban College and to Janine's as Rural College when there is potential for ambiguity.

(vs. “discovering” their part’s role within some predefined, static version of that larger community) it reflects the use of dialectical structures of thinking. Neither the parts nor the whole are taken as pre-determined or fixed. All are seen as being locked into interdependent, mutually constitutive relationships, in which evolution of the parts is seen as necessary for transformation of the whole.

Theme 2: Illuminate the invisible.

Everywhere we look in these three cases, we find the leaders engaged, at a fundamental level, in trying to illuminate aspects of some broader, seemingly invisible reality faced by the community and affecting its ability to understand, articulate, and achieve its most widely shared values. First, let’s take a look at how this manifests on the diagnostic side, in the way leaders understand their adaptive work. Whereas the adaptive leadership framework identifies two primary forms that adaptive challenges usually take, these three leaders consistently define the challenges they encounter as instances of value-reality gaps because they locate the root of the problems in overly narrow or undercrystallized understanding of the values, the reality, or the relationships between them. Specifically, we see Harold talking about such value-reality gaps in a structural way, as different kinds of part-whole tensions. He finds it problematic when values held by different parts of the community are understood and pursued as independent goals. Drawing on his capacity for dialectical thinking, he sees that if these values are viewed through a larger (more complex) frame, they can be seen as locked in an interdependent relationship which, if acknowledged as such, can be intentionally developed in ways that enable each of those goals to be advanced in service of itself, its interdependent pole, and one or more higher-order goals defining that larger frame (e.g., continued broad access to public higher education – in whatever form it might take.)

We see Janine talking about the challenges she faces in more definitional terms, pointing to different ways in which the values expressed by the institution or its members remain undercrystallized, underdeveloped, underarticulated, or disconnected from larger conversations (e.g., what do we already know about the nature of integrative education—and what don't we know but should?). I call these kinds of value-reality gaps *critical ambiguities*. Janine finds these gaps problematic because they leave the community without needed guideposts for establishing and evaluating more concrete strategies for either moving the community toward fuller realization of those values or updating the values themselves to better reflect the reality of the times. Janine interprets these ambiguities as flowing from the community's failure to investigate institution-shaping questions in large enough conceptual-, situational-, or time-frames. What a less complex Janine might interpret as a reticence on the part of the community to clarify educational outcomes in definitive terms, she recognizes as a historically shaped feature of the culture that holds symbolic value for preserving the mystique of the community. Similarly, what a less complex thinker might view as a clash between students' interests in fossil divestiture and Board commitment to responsible wealth management, she sees as an opportunity to situate student's concerns in a larger understanding of the realities surrounding environmental leadership, and to expand her own understanding of how to best integrate learning experiences outside the classroom into the College's progressive education model.

Finally, we see Sherry consistently interpreting the challenges she faces as value-reality gaps in the identity domain; as different forms of what I refer to as *identity fractures*. She notices that different individuals and organizational units construct their identities, or have them constructed or storied by others, in ways that reflect either unconscious, or quasi-conscious but self-preserving applications of overly narrow historical, cultural, or political

lenses. She believes that gaps created by independent application of differing lenses serve to continually reinforce patterns of thinking and behavior that thwart a fuller embrace of widely held values. A less complex Sherry might be less cognizant of the ways in which we construct our understanding and interpret the stories and actions of others. Such a Sherry might interpret faculty disengagement, for example, as a sign that they don't share the values of rigorous scholarship and institutional innovation. Instead, Sherry recognizes the symbolic meaning faculty attribute to cost-cutting measures, shifting role definitions and other leadership actions, and sees how their disengagement, rather than reflecting a conflictual value set, in most cases reflects frustration that the realities they face (as a result of the leadership actions described above) thwart their ability to embrace the values they all share.

Thus we see how the way that these three leaders interpret what's happening and what's needed consistently reflects their understanding of the constructed nature of reality, and the problems that arise when such constructions are assembled in isolation or using narrow, untested interpretive lenses, or held as indelible features of reality and, as a result, carried forward without sufficient testing and reflection.

On the action side, we see leaders pursuing a number of different strategies aimed at illuminating larger realities facing the community. I walk the reader through several of these below.

Community engagement & co-construction.

In the adaptive leadership framework, the community's widely shared values represent the orienting point for adaptive work. However, I have often wondered how any given leader or community could know what those values are, especially in the context of other guiding principles of adaptive work such as the need to define those values inclusively and incorporate hidden perspectives. Shedding light on this question, I find participants in

this research engaging their communities in processes aimed at discovering, uncovering and reflecting on their own values, and then articulating them in forms that make them available for inspection and update. In other words, rather than defining the work at the center (a 'heroic' act of leadership) and then engaging the community in learning needed to advance that work; these leaders take up the task of defining the work as an adaptive activity in itself. Thus they pursue post-heroic, collaborative strategies aimed at helping the community define that work for themselves.

For example, each of the participating leaders, at some point, orchestrates processes aimed at clarifying the mission of different organizational units within the system, or of the system itself. Sherry begins this process at the Arts & Sciences level, realizes the issue is not ripe given the pending second wave of reorg, and redefines her focus to help a smaller subset of that community (STEM departments) clarify its shared values and points of value-alignment through dialogue and development of the concept paper. Janine's strategic planning, positioning, and educational-outcomes-clarifying initiatives each engage the community broadly in clarifying its own understanding of the core strengths and values that it currently (quasi-unconsciously) embraces, and those that it wishes to embrace more fully. Also, although I don't discuss it in the case findings, Harold describes during the interviews a process he orchestrated to help system colleges clarify their missions and work collaboratively to reflect on these missions in the context of larger university system and state public higher education purposes. Like Sherry, he encounters extreme resistance to these activities, and thus shifts to more indirect strategies such as leveraging the budget parameters process to motivate development of shared assumptions and strategically aligned budgeting practices. He, like Sherry, additionally shifts his focus to working with more contained and receptive segments of the community. For example, his partnering work with

(a) the foundation pushing the performance-funding agenda, (b) the community college system, and (c) the business association, all reflect more contained or mutual efforts to uncover points of value alignment between different factions in the larger state higher education community, so that their adaptive efforts can be pointed in the same direction.

Stories & artifacts.

In each of my research cases we see participants widely using, and helping different segments of the community develop, shared narratives, illustrations, stories, financial models, and other artifacts designed to put a stake in the ground with respect to learning uncovered through the kinds of mission development and value-alignment processes described above. These external (visual or narrative) artifacts then become external points of shared reflection to be continually refined and further developed. Recognizing that different people and groups construct reality through highly individualized lenses, these three leaders help members of the community make more visible the lenses they are using (e.g., as in the historical context provided in the accreditor's report and foundation proposals where the outcomes project is described) and the outcomes of their collective efforts to calibrate those lenses with respect to particular aspects of their reality (e.g., our values with respect to interdisciplinarity; our shared understanding of 1-3-5-10 year goals). Incidentally, as a researcher, I benefitted greatly from the continuous stream of highly detailed, concrete, and interpretive stories that my participants shared. Rarely did they make a point of significance to them without sharing an example, unprompted by me. Often they offered multiple examples to support the same point, which provided me with mini-sets of related data to incorporate into my triangulating processes. This seemingly natural inclination to tell, engage others in developing, and document in concrete form the narrative essence of ideas and beliefs, seems a particular strength of these three redefining leaders.

Demonstrations as models & symbols.

Another way I find participants illuminating larger realities or possibilities facing the community is through activities aimed at *demonstrating* new ways of thinking, acting, and understanding the realities and action options facing them. In fact, Harold and Sherry each describe in explicit terms their intent to “demonstrate” new possibilities through actions aimed at modeling alternative ways. For example, Sherry’s primary strategy for healing her own identity fracture is to demonstrate her capability through embodied actions that counter other-constructed narratives about her leadership. Her efforts to rebuild her own office staff to develop a “cracker jack team” serve the function of signaling (symbolically demonstrating) the possibility of “emerging from the firestorm.” When Harold faces resistance to partnering from internal leaders, he seeks partnerships with institutions outside the university system (even though such partnerships bring tradeoffs in the form of various legislative hoops and administrative hurdles), primarily as a way to demonstrate to internal leadership the value of such partnerships and, more generally, of pursuing more nontraditional and innovative experiments. Although Janine doesn’t use the term *demonstrating*, some of her actions can be seen as examples of this approach. For example, seeking to demonstrate her commitment to developing positive relationships with the local community, she invites town officials to her inauguration, and permanently opens the long-locked gate serving as a boundary between the campus and the town center. Similarly, in her engagement with fossil-divestiture-advocating students, she models the process of experimenting with alternative ways of helping students integrate their out-of-class experiences into their College learning.

These various forms of illuminating activity can be explained as expressions of at least two forms of complex thinking. First, as briefly mentioned above, they reflect the leader’s awareness that reality is constructed and thus can be intentionally reconstructed in

different ways that draw on different, larger, or more higher-purpose-aligned frames. Second, they seem to reflect not just the desire to get others to reconstruct the world through the leader's frame as might be the case for a less complex set of leaders, (although that might be happening more in some of the "demonstrating" examples immediately above), but also recognition that no single frame is large enough to capture the fullness of their shared reality. In other words, many of these illuminating activities seem to reflect what Kegan (1982) describes as the "fundamental motivation for action" associated with development of 5th order organizing capability, which is the desire to act in ways that honor and acknowledge the constructed and partial nature of all worldviews.

Managing the roadways: An illuminating type of educative strategy.

Demonstrating the strategy of using illustrations (symbolic or concrete) to illuminate ambiguous aspects of a community's shared understanding, I offer the following analogy to draw a distinction between a less complex (tier two thinking complexity motivated) *advocacy* approach to educating the community, and a more complex (tier three thinking complexity motivated) *illuminating* approach to this cornerstone adaptive leadership activity (i.e., using an "educative strategy" to engage the community in needed learning). Specifically, at one point during our interviews, Harold reports that leading adaptive change is "kind of like trying to manage the roadways...managing those different flows and paths to try to get to the places that we need to get to. At different times that takes something different." Here, he elaborates using different examples such as "building a bridge," "redirecting a road," "shining spotlight on a location," "removing a barrier." He continues, "and it's a different approach with different groups." For example, he describes sometimes "telling an exciting story" to get receptive groups excited or to alert them to dangers, and other times connecting to the existing values of less receptive groups to motivate their engagement in

things that advance both those values and other values held by the larger communities of which they are part. He closes the analogy with the comment, “and it's trying to keep a sense of, ultimately, here's where these pieces have to come together. Ultimately, here's where we have to try to get people to land” (IDI2:1122). Taken in isolation, this comment could well illustrate an advocating strategy, in which the leader applies knowledge of the local context and factional values to build support for the leader’s own vision for the future. For example, his comment “ultimately here’s where we have to try to get people to land” suggests he could be orchestrating movement toward a predetermined end point or set of end points. Reflecting on this metaphor in the context of the Harold’s data overall, however, I find a different interpretation more likely.

As part of my reflective analytic process, I created two artistic sketches of Harold’s metaphor. The first (Figure 5, this page) depicts a complex system in which the roads are being rerouted to various destinations, some known, some not known, via various means. In this figure, the multiple pathways and destinations are clear and the viewer’s focus is drawn to the system itself; how it is being shaped and transformed (by the artist) within the two-dimensional plane.

The second rendering (Figure 6, following page) adds a layer of perspective – an underlying motivation for action that lies beneath the visible plane (covering film) of the drawing. While it may

not be obvious from the photo, the medium I used for Figure 6 is a colored card stock pre-coated with a thin black film, which can be scratched off to reveal the preexisting, more



Figure 5. Harold Managing the Roadways #1 (pencil)

expansive design underneath. In this version, the activity of rerouting the roads and redefining the destinations serves the additional function of revealing more and more of the



Figure 6. Harold Managing the Roadways #2 (scratched into pre-coated, colored card stock)

under layer, the unseen larger reality that is present but not visible until the reconfiguration of the roadways makes it more so. The data suggests that Harold holds this additional perspective in mind when working, and that revealing the larger reality is among his primary aims. For example, data suggesting that the “ultimate destination” referred to in the quote extends beyond any particular configuration or destinations he is moving the system toward at a given pointing; also,

data reporting his invitations for others to join him in suggesting alternative destinations or new pathways

(such as for the call center). In the context of the data as a whole, I argue that Figure 6 is a better holistic depiction of Harold (and the other participants) in action, and of the kind of educative strategy made more possible with development of complex thinking capabilities.

Theme 3: Redefine and recalibrate.

Another salient cross-case theme in participants’ use of complex thinking to shape their decisions and actions on the ground is their use of different strategies for continually redefining goals, actions and approaches and recalibrating them to variable and dynamic features of the environment. All participants pursue, at times, detours that represent more indirect approaches to the distant horizon talked about earlier as ultimately guiding their course; they explore these alternatives while waiting for storms to blow over or for the crew to tackle whatever monster is in its immediate path.

In each of the three cases, we see illustrations of how these leaders redefine and reposition their locally deployed, near/mid-term goals and strategies, as needed, to keep them aligned with the larger purposes and ultimate aims they are trying to move the community toward, or to motivate engagement in larger-truth-illuminating activities. In Janine's case, for example, we see how she engages the community in co-constructing a set of embedded goals on 1-3-5 and 10 year timelines, and continually invites participants in this process to consider those goals flexible guideposts that can be redefined or repositioned, as needed, to keep the community moving toward its evolving understanding of where it hopes to be a decade out or more. Leveraging the community's receptivity to joining her in this co-construction process, and deploying her authority to set clear expectations around both the need for concrete outcomes and the need to consider those outcomes flexible, she engages them in a formal goal setting process, which she integrates into a larger strategic planning effort, and describes as a platform from which she expects needed things to emerge.

In a different example, we see Sherry pursuing a series of mid-course corrections during her early tenure at Urban College. As described in that case, she keeps finding new ways to channel her "big vision way of thinking" to keep her local efforts aligned with her longer term aim of growing institutional capacity to promote more widespread and equitably distributed thriving (such as via expanded access to higher education for geographically and socially marginalized populations), while also adjusting these goals and strategies in ways that keep them feasible given current conditions in the environment. Specifically, she interprets senior leadership's repeated thwarts of her early efforts to develop outward-facing partnerships, as a signal that a different set of strategies is needed. Thus, she shifts to using a combination of more self-contained, locally controlled, and foundation-building strategies, until she notices the conditions shift again (the dawning of the "new era") at which point she

also shifts again to take up the more direct approach of promoting interdisciplinary collaboration via cross-school workgroups. Harold describes a similar history of mid-course strategy adjustment framing his efforts to engage the community in more broadly experimenting with boundary-crossing partnerships and other innovations in the design and delivery of educational programs, which efforts are ultimately aimed at maintaining broad, affordable access to transformative higher education programs. Below I offer two variations on this calibrating strategy:

Timing, placing & pacing.

Torbert (2004) suggests that complex-thinking leaders hold a different relationship to time than less complex-thinking leaders. He suggests that they are more concerned with *timing* or *timeliness* of activities and outcomes (e.g., relative to other events and conditions) than with being *on time* (e.g., relative to some fixed or objective standard). He also suggests that they are more likely to attend to finding the right place for an activity, within the larger systems, communities or processes in which it is (or could be) situated. He refers to this aspect of complex thinking capacity as giving attention to *timing and placing*. These two kinds of calibrations are related, as something may only be timely if pursued in a particular place, or with respect to a particular segment of the community (e.g., Harold initiated his alliance with the BIA in a moment that was opportune with respect to state budget allocation negotiations). Likewise, the placing of an activity in a particular venue may only be possible if is placed there in a way that is timely with respect, for example, to other currents of activity in the community (e.g., with growing emphasis among senior leaders on promoting interdisciplinary values, it became more possible, and impactful, for Sherry to convene a STEM workgroup to develop the STEM concept paper). Drawing on the terminology of adaptive leadership, I will add that my three participants are also highly attuned to the *pacing*

of their work (relative speed at which a given project or activity unfolds over time—a particular form of timing perhaps), thus extending Torbert’s alliteration to *timing, placing & pacing* as reflected in the sub-title of this section. For example, Harold continually revisits his expectations and progress regarding the need to innovate locally at a pace that is faster than the sector at large. Janine is very deliberate about the pace at which she communicates different aspects of the positioning strategy and other changes to her community.

In the process of describing their leadership practice, all of my participants draw regularly on deep, continually refreshed knowledge of the political, economic, and social dynamics taking place at multiple levels of the system, both within their institutions, and outside of them. Looking across these different levels and dynamics they identify unique moments of convergence and divergence, which they perceive as opportunities for creative action. All three cases presented in this report provide multiple illustrations of this. For example, in Janine’s case, multiple, seemingly unrelated open, and evolving questions about various aspects of healthcare delivery on and off campus present to her as an opportunity to propose and explore a partnership with a local hospital. Sherry’s attunement to the shift in leadership support for interdisciplinary values, combined with her recognition of the provost as an ally and connection point to larger change initiatives, mixed with her realization that conversations about expanding interdisciplinary activities hold particular resonance and healing opportunities for disengaged faculty at this moment in the organization’s history, combine to signal readiness for organizing interdisciplinary workgroups. While less complex leaders may similarly commit themselves to a practice of keeping informed about environmental shifts, especially leaders in wide-scoping or externally facing leadership roles, the complexity inherent in my participants’ engagement with these dynamics is their ability to see connections where others may not, which supports them in locating new possibilities

in the *spaces between* the dynamics, as much as they locate them at obvious points of intersection. They look not only for trends that reinforce a particular idea or signal readiness for some predefined solution, but also for disconnected threads that, if joined in some yet unenvisioned way, each have a place in that larger whole; they create something out of a seeming nothing.

Embracing local variations (in values, conditions, and expressions).

Another facet of participants' calibrating activity is their adjustments to local variations in values, conditions, or expressions. I refer to this in the cases as situational awareness, as it manifests in changes that leaders make to their goals and strategies to accommodate unique factors present in a given situation, whether constructed (as in faculty's interpretation of leadership actions as a sign that they are not valued as academic) or real (as in the fact that Harold's state reports among the highest college completion rates and the lowest levels of state funding in the nation, which could affect (in)effectiveness of performance-based funding strategies in that state). Participating leaders' actions are often aimed at both honoring unique contributions to larger processes made possible by these local variations (e.g., Sherry's commitment to finding ways to preserve disciplinary boundaries while also developing shared STEM identity as she contends that the STEM community will be stronger with strong, distinct contributions from individual STEM departments) and recognizing the inherent value to local communities, of being able to fully express their unique, deeply held values (Sherry also realizes that faculty are deeply identified with their department identities, and highly motivated to continue deepening their skills and knowledge in ways that are framed by those identities and disciplinary boundaries). In terms of calibrating to local expressions, Janine encourages such expression through such activities as articulating the positioning strategy as a "frame to hang their experiences in"; and by

suggesting that whole-student education means “not that every person has to become a social activist, God knows” (IDI1:530), but that students should learn what is needed to navigate and potentially change whatever institutions they encounter in their lives and professions. She wants them to translate their learning out into their experiences in whatever ways best suit them and fit their circumstances.

To highlight the way in which this process of making mid-course corrections can be taken up in a way that is complex (as my participants do) or in a way that is less complex, I offer the following provocation. “She’s a *flip-flopper*!” It’s a commonly thrown barb in political environments, such as higher education, which are characterized by high uncertainty, shifting dynamics, and multicultural communities with oft-divisive views on key issues. To be fair to the barb thrower, if a leader is continually changing her position on an issue based on continual reassessment of what’s best for *our* cause (as we or I define it), what’s instrumentally useful for advancing the interests of *our* segment of the community (as we or I understand them), then the sting is perhaps rightly felt. In such cases, it serves as a wake-up call that the leader has defined the goal too narrowly, or located the work at the center of too narrow a segment of the community. However, there is another way to interpret a flip-flop. For those, such as these three redefining leaders, who are continually seeking to move themselves and all segments of the community toward larger, more thoroughly tested, more inclusively defined understanding of the most fundamental needs of the larger community, and who are consciously striving to identify the best path forward based on available information at any given ‘moment’ in the community’s historical trajectory, and who are willing to shift courses, as needed, to accommodate growing understanding of the points of intersection, connection, and tradeoffs among different views, this is a different situation. In this case, the barb is also rightly felt—but for different

reasons. In this case, it is a reminder that not everyone in the community recognizes that the leader is working in this way, nor recognizes the value of doing so. Thus, it is a reminder of the hidden developmental diversity that exists alongside other, more visible forms of diversity in the community. For the less-complex thinker (pursuing the strategy outlined toward the beginning of this paragraph) this barb signals the need to begin thinking more expansively about the community, and to expand peripheral vision beyond the boundaries of your own community to take in more of the information, perspectives, and concerns of people outside your segment of that community—especially people with perspectives that fundamentally conflict with your own on the particular issues being pursued. For the redefining leader, the barb signals the need to help more of the community recognize that that is what you are already doing, this is how you are already thinking, and to meet them where they are, while building their capacity to join you in a larger circle.

Theme 4: Keep things connected.

Building bridges.

Each of my participants makes concerted efforts to keep local activities and initiatives connected to larger goals, processes, activity streams, and knowledge bases, and to establish mutually informing relationships that benefit parties on both sides of these bridges. At the institutional level, Harold works to create such connections at multiple levels of the system, as illustrated by the action scenarios describing his partnerships with the community college, the business association, and the education foundation. Janine finds it frustrating that her town's Planning Board does not have a formal economic development plan for the region, as it makes it more difficult for her to engage them in dialogue about what role the College might play in supporting that effort. Harold expresses similar frustration at the lack of existing arenas offering opportunities for his and other institutions to remain connected

to larger cross-sector dialogues aimed at advancing shared understanding of the challenges and realities faced by the sector. As outlined in the STEM workgroup scenario, Sherry makes very deliberate efforts to establish two-way flows of information between the developing STEM group and various other activity streams (e.g., College strategic planning, deans' discussions, retention committee work, etc.). She uses these connections to not only calibrate local activities to larger emerging priorities, but also to do the reverse.

Using multiple external reference points.

Another aspect of participants connecting activities is their commitment to identifying external reference points to inform and expand their understanding in ways that help shift their assumptions and underlying approaches to thinking about their work. For example, Janine comments that the mentor whose coaching she finds most helpful is the person who gives her 'orthogonal' advice. In other words, his ideas connect in some indirect way to her own thinking but, more importantly, serve to shift the *way* she is thinking about something, rather than just offering alternative content. Sherry describes how her interactions with peers at other institutions help her more deeply understand the nature of the obstacles facing her at work, and also contribute to helping her reframe and reshape her identity in ways that are productive. For instance, as mentioned in her case, it was, in part, through conversations with someone at a peer college that she realized how well positioned she was within her own institution to understand, articulate, and engage the community in a process of defining an interdisciplinary STEM vision. Harold describes the danger of failing to utilize such external reference points in the process of deepening understanding of the issues facing the higher education community and its leaders. He points to what he calls an 'echo-chamber' within traditional higher education circles, noting that failure of enough participants in this circle to look outside for new ideas and perspective has thwarted the

kinds of innovative thinking that are needed for the sector as a whole to address its most pressing concerns, such as the rising costs of higher education. While he pursues such dialogue through one-on-one conversations with colleagues, such as at industry association conferences, he points to the need for more formalized arenas to be developed to host such interchanges. What's needed, it sounds like he is saying, is the sector equivalent of a 'safe space' to engage in more collaborative thinking about the sector as a whole in an environment characterized by fragmentation, hidden caste systems, and widespread entrenchment in traditional ways of thinking about education programming and delivery.

These research participants' motivations for establishing these kinds of connections are grounded in their awareness that their ability to effectively carry out the other strategies described in this chapter (orient to larger purposes, illuminate larger reality, calibrate to local conditions, co-create) depends, in part, on their success at continually expanding their own, and their community's understanding of those different facets of reality so they can be evaluated against each other, used to identify points of value alignment, and used to generate larger pockets of shared understanding, and applied as a backdrop for co-constructing new realities. These comments also seem to express the desire for more trans-system conceptualizations of higher education and its institutions, in which different paradigms and practices engage in more collaborative, cross-system forms of knowledge and strategy development. While not robust in their expression of trans-systems thinking, they seem to hint at an awareness that such thinking is needed and useful. This characterization is consistent with a 4(5) developmental position, in which the limitations of systems-thinking begin to be experienced and a desire for more complex ways of organizing becomes a helpful thorn, or, as Janine describes it in another context "a grain of sand in the shoe" that

provokes just enough dissatisfaction to promote development of new approaches, in this case, new approaches to conceptualizing systems.

Theme 5: Orchestrate co-construction.

The final strategy I will discuss is that of creating conditions that enable deliberate co-construction of goals, processes, and future realities. The variations on this strategy overlap with the other strategies above; however here I discuss some of the ways that these leaders address factors that thwart their ability to carry out those strategies or use them to engage others in the process of carrying out necessary adaptive work.

Torbert's deliberate irony/Kegan's supports & challenges.

As leaders in this study strive to engage the community in the kinds of adaptive work outlined in the cases, they interact with people holding a diversity of perspectives on the issues and who themselves understand those issues using a range of thinking complexity levels. When community resistance seems grounded in members' tight hold on their existing way of constructing the world, whether that construction process reflects internalization of external systems of thought, or personal construction of one's own self-authored view of the world, it can be challenging for leaders to engage them in processes that require or encourage them to think in more complex ways. I see each of these leaders applying what Torbert (1978) calls "deliberate irony" (p.113) or using language and approaches that they know will be interpreted differently (less complexly) than they could be, and, as such draw them into processes that both satisfy their less complex constructions, and pose challenges to those ways of thinking that invite developmental growth. While none of these participants use the phrase *deliberate irony* or, more generally, explain their experiences in terms of developmental theory, I see each of them using the strategy of deliberately connecting to some existing value or identity construction held by the community members

they seek to engage, in order to motivate engagement in processes offering opportunities to think differently, and then orchestrating, through those processes, various prompts that invite or encourage those alternative, more complex conceptualizations. In Harold's case, he gains presidents' support to establish and utilize budgeting parameters by emphasizing, in part, the way in which those parameters will support them in securing greater autonomy in certain aspects of their practice (developing and managing detailed budgets). However, once those commitments and instruments are in place, he leverages opportune moments to present them concretized views into the larger reality of the situation (specifically he builds a 5-year model using the flat-funding assumption and existing agreed-upon parameters) to present these presidents with hard data based on existing shared (parameters) and modified reality-based (flat-funding) assumptions, thus confronting them with certain truths that they might not have been willing to accept, had this process not been in place. Through these activities, Harold gains their support, and the Board's, to define additional parameters and adjust their shared assumptions in ways that reflect a more realistic shared understanding of what is needed to promote continued sustainability of the system and its colleges. In this case, he may or may not be encouraging more complex ways of thinking, but he strives to expand awareness of the fuller reality facing them all, which knowledge he hopes will motivate others to participate more willingly in the collaborative process.¹⁷

In another example, Janine meets the fossil-fuel-advocating students 'where they are'; acknowledges their values and then situates them in a larger frame. She invites them to learn more about how they might achieve their goals by engaging them in self-directed educational activities designed to expand their awareness of the larger realities facing them;

¹⁷ I cannot make empirical judgments about the levels of thinking complexity of others in Harold's environment; however, I can report that Harold believes a fuller embrace of the complexities characterizing the environment is needed.

and she invites them to reflect more critically on their deeper intentions and larger purposes in a supportive environment that also provides a venue for advancing their goals as currently defined. In this case, Janine both offers unexpected receptivity to students' (adversarial) position, models a respectful, inquiry-based approach to engaging with factions holding contrasting perspectives, motivates students to expand their own understanding of the realities, and creates a temporary "holding environment" (Kegan & Lahey, 2016, p.152) that offers both supports for, and challenges to, their current way of understanding the problem.

Finally, Sherry's engagement with STEM department heads, similarly joins workgroup participants in honoring and developing their existing, deeply held identities (faculty, department, discipline) while engaging them in a collaborative process designed to create a larger shared understanding of an interdisciplinary vision for STEM, the challenges they collectively face, and the ways they might leverage their unique strengths and passions to advance this vision. In the process, she helps them develop a strong sense of community, which serves to invite a new layer of identity defined at the interdisciplinary level.

Here see these leaders recognizing the unique constructions of the situation being brought by participants. They engage participants through those lenses, authentically offer opportunities to advance existing aims, and, in the process, invite them to also think more expansively about what might be possible through this engagement, thus motivating co-construction of shared frames, shared goals, and larger understanding of reality.

Timing & placing.

Earlier I discussed how these three leaders calibrate their approaches based on assessments of timing and placing of different activities and events. Here I add discussion of how they use this attention to opportune times and places to motivate engagement of the community in co-construction activities. Thus they are very deliberate in their efforts to co-

locate authority for deciding what is true, or what should happen, in themselves (as orchestrators of the process), and in the community (as contributors to that process). For example, in the budget parameter example described above, the “opportune moment” Harold chose to present the financial model to the presidents was in the immediate wake of the news that the university system would receive flat funding against actuals (as “reframed” by Harold in his conversation with the Legislator as described in the conversations and communications action scenario) which was a disappointing result considering that they had requested and expected an increase. Janine reports that with respect to the process she is orchestrating to have College constituencies define concrete outcomes they will use to evaluate the effectiveness of their educational model, “I use the external conversation to push the internal one.” In other words, she leverages growing scrutiny of educational outcomes and widespread dialogue about the need to more explicitly define such outcomes as a lever for motivating engagement in the internal discussion. However, as I reported earlier, she does not do this to motivate development of some predetermined set of outcomes, but is committed to promoting more ongoing reflection on the institution’s values and the way its educational model is meeting them. On the placing side, Sherry convenes the STEM workgroup in a safe space in which collaboration is allowed, sanctioned by school deans, and signaled as strategically aligned (and therefore sustainable and so worthy of faculty’s investment of time).

Connecting the Dots

I find the themes identified above to be largely consistent with the ways of understanding and acting described in the literature as being typical for leaders at the redefining stage. I remind the reader that the three participating leaders make sense of their experiences by drawing on relatively rare levels of thinking complexity represented by

Torbert's *individualist action-logic* and Kegan's 4(5) *subject-object balance*. This is the first weighing station within the third tier of thinking complexity. As I outlined in Chapter 2, subject-object theory holds that at this 'moment' in the developmental arc, a level 4 organizing principle (systems/complex) is operating and a level 5 principle (trans-system/ trans-complex) is just beginning to emerge, or at least some awareness of the limitations of the 4 and the need or possibility of the 5 enters the person's (un)consciousness.

With respect to the 4 (part of the 4(5) balance), developmental movement beyond this equilibrated balance means that not only experiences constructed using the 4 structure, or systems complex (e.g., ideology, identity) but now also *the construction process itself* (the operations of the systems complex; e.g., lenses used to construct my ideology, processes used to shape my identity) shift from subject to object, making those construction processes more available for inspection and deliberate shaping by the sensemaking individual, in this case the leader. This awareness of one's own experience of applying different lenses to construct meaning brings with it a greater attunement to the ways in which others also apply different lenses to construct meaning. As repeatedly illustrated in my cases, this awareness of the constructed nature of reality; and associated recognition of the possibility of more deliberately choosing which construction(s) to employ, test, or modify in a given moment, or to articulate in a given document, or to claim as an aspect of one's professional identity, become key leverage points used by my participants for trying to influence adaptive changes within members of their community (e.g., heal identity fractures) and the institutions that serve them (e.g., dynamically balance part-whole tensions). At various points within the case analyses, and in summary form above, I point out how this aspect of awareness serves as a resource in my participants' adaptive leadership practices.

With respect to the (5) (part of the 4(5) balance), according to subject-object theory, aspects of experience organized by this emerging structure are still largely subject to the individual, and, therefore, are less likely to appear in the participants' own reflective descriptions of their thinking and acting. These individuals can unconsciously employ the burgeoning (5), but can't yet see and describe this aspect of their sensemaking. To some extent, this presents a challenge for the researcher who is less likely to elicit descriptions from the participants of how this process is deployed, but may still be able to identify ways of thinking and acting that reflect unconscious application of this way of organizing experience or that are fundamentally motivated by this awareness that the world is more complex than they (or anyone) can conceive. For example, the way this feature of my participants' sensemaking reveals itself in my data is primarily in the latter form, as a fundamental motivation for action grounded in a transitional logic of coherence in which tension between the desire for internal consistency and the desire to honor incompleteness is resolved by continually redefining the parameters of the situation.

With these two logics operating simultaneously, internal coherence is sought within specific systems, in specific circumstances, or under specific conditions or time parameters, and inconsistencies are handled by redefining these situational parameters, or holding understanding in a way that suggests it is what we know so far, about the situation as defined this way. Time and again I observed my participants tuning their actions to dynamic situational factors and identifying moments in time, and places within systems and organizations, where particular goals, strategies, or values were more possible, more adaptive, or likely to be more successful. I am grateful to my participants for offering me this window into these and other aspects of their practice.

Chapter Summary

Before moving into a discussion of implications (which I do next in Chapter 8), I first want to step back and reflect briefly on what this research reveals about how early stage complex thinking can shape leaders' understanding of their adaptive work and inform their decisions and actions aimed at carrying out this work in actual work settings. First, this research finds that for these three leaders, complex thinking manifests in understanding and action in a vast variety of ways that emerge from dynamic interactions between, on the one hand, qualities of awareness and degrees of organizing complexity made possible by underlying epistemological structures, and on the other hand, idiosyncratic features of the specific situations framing these leaders' work and the broader social, economic, political, and other environments in which their work is located.

In other words, there does not appear to be a one-to-one relationship between specific forms of complex thinking (e.g. dialectical thinking; paradoxical thinking) and specific kinds of decisions and actions being carried out on the ground. Rather, as outlined in the cases and underscored in the summary above, any given construction of the work (e.g., community lacks a shared narrative), and set of actions aimed at carrying out this work (e.g., business association alliance, STEM workgroup and concept paper, positioning strategy) can be explained as flowing from a combination of the various features of meaning construction described in this paper (e.g., dialectical and other forms of complex thinking, logic of coherence, locus of authority, differentiation from own meaning constructing activity, integrative awareness of at least three, possibly four of Torbert's territories of experience) filtered through particular dilemma's confronting leaders (e.g. uncertainties surrounding state funding; underexpression of interdisciplinary values; low enrollments) and larger intentions they hold for their communities (e.g., sustained mission fulfillment; adaptive

institutional intervention in the larger sector). Drawing out process themes that cut across this variety, we see that complex-thinking informed leadership understanding, as exercised by these three leaders, is expansive, multicentered, dynamic, situationally attuned, multi-historically situated, co-constructed, and open for inspection. We also see that complex-thinking informed leadership actions are, timely, creative, collaborative, connecting, multicentered, experimental, and evaluated based on multiple, shifting, internal and external reference points.

Second, as addressed in some detail above and mentioned throughout the chapters, many of these leaders' actions can be explained, in part, as manifestations of a transitional *situationally mediating logic of coherence*, which seeks to reconcile seemingly conflicting, simultaneously operating desires to maintain internal consistency of constructed systems (e.g., worldviews, institutions) and to honor the incompleteness of all constructed systems. While seeking to construct for themselves, and help their communities join them in co-constructing, ever larger and truer understandings of what is happening, needed, or desirable, while also striving to help themselves and their communities make sense of particular situations or systems in ways that maintain the internal consistency they also seek, they draw on their capacity to understand the world in multiple ways and their knowledge that constructions can be intentionally shaped, to adjust the parameters or conditions defining local situations and systems so that both logics can be fulfilled, each in reference to different constructions of the system, where both constructions are held as simultaneously true. This takes such forms as:

- Defining multiple/adjustable timelines (Janine's 1-3-5-10 year goals)
- Re-scoping project boundaries (Sherry's STE(A)M v. STEM)

- Relocating work (Sherry's in-house marketing; Harold's trustee pre-meetings¹⁸)
- Developing new philosophy-specific yardsticks (Janine's educational outcomes)
- Constructing new institutionally relevant identity layers (Sherry's STEM community)
- Redefining ambiguous terms (Harold's "competencies"; Janine's "Collegeness")
- Reframing situations (Janine's "What if he stays?" and "refram[ing] admissions")
- Drawing attention to local variations (Harold's performance funding exception)
- Temporarily redefining roles (Sherry's program directors meeting)
- Institutionalizing conditionally activated parameters (Harold's budget parameters)

In each of these cases, the leader pursues internal consistency within the defined parameters (existing 1-3-5-10 year goals make sense based on how we currently understand our College and its needs) while also acknowledging that the part of the world that is defined by those parameters represents just a slice of some larger reality that has yet to be discovered (1-3-5-10 year goals remain open to inspection, and both their content, and their duration are considered adjustable). Thus, we also see leaders understanding the defined parts of reality for which they seek internal coherence of their understanding (strong STEM disciplines; thriving system colleges) not as static parts of some predefined reality, but as dynamic, adjustable constituent elements of this larger reality (interdisciplinary STEM at College; thriving university system). They keep these locally defined, internally consistent systems connected to the larger systems in which these local parts are embedded, also using a variety of strategies, including:

¹⁸ Although not discussed in the case chapter, Harold created special "trustee pre-meetings" in which he worked with select trustees to help them develop a more expansive understanding of issues and identify strategic lines of questioning to bring into subsequent Board and Board committee meetings.

- Illuminating unseen and evolving aspects of the larger shared reality.
- Foregrounding shared goals and values, larger aims, longer-term agendas.
- Using and demanding use of multiple external reference points.
- Seeking external feedback.
- Establishing lines of communication between people and projects.
- Creating formal and informal alliances and partnerships.
- Approaching innovations as experiments to be modified or abandoned with learning.

The unique value of participants' early-stage complex thinking informed leadership activities seems located in the bridging function represented by this situational mediation of distinct logics of coherence. Because these leaders can relate to (and share) the desire to construct internally consistent meaning structures and other systems, they can empathize with, understand, and facilitate others' efforts to make sense of their world, and their work, in ways that fulfill this desire. At the same time, they see the limitations of this way of understanding, if it is pursued as an end in itself, without reference to some larger frame of understanding. Thus, they join people where they are, contribute their own best ideas, create larger shared frames of intention and understanding to serve as an arena for placing these different perspectives into relationship and working with them in ways that promote emergence of even larger shared frames of meaning, and yet-undiscovered pathways forward, to guide ongoing organizational action.

While these leaders sometimes encounter resistance in the process of inviting such collaboration, they draw on their understanding of the constructed nature of reality to identify features of meaning construction at play in the situation (e.g., identity constructions, symbolic attributions, local goals) that can be leveraged, harnessed, adjusted, or otherwise

used to entice more actors in the environment to join them in understanding the work, their wishes, and the world in more expansive, dynamic, intersubjectively and objectively validated, and interconnected ways.

Chapter 8.

Implications and Future Research

Research and theories suggest that complex thinking can serve as a resource for leaders seeking to influence adaptive change. The findings presented in this paper offer entry points for deepening understanding of this link by illuminating paths of influence between complex-thinking informed behaviors, and short- and mid-term outcomes described by participants, or others, as beneficial to the community or potentially so. Moreover, the fact that the five cross-case themes identified in Chapter 7 characterize these leaders' practices across a wide variety of situations and settings, even though participating leaders continually recalibrate their goals and strategies to meet the needs of the circumstance, makes these underlying themes more robust as entry points for investigating similar practices being pursued by complex-thinking leaders outside of this three-participant set. These findings hold important implications for both theory and practice, as well as raise new questions worth investigating more deeply. Below I discuss these implications and offer suggestions for future research.

Implications for Practice

The interpretive descriptions of complex-thinking informed adaptive leadership practice generated by this research provide important windows into some of the ways that leaders with these capacities can contribute to adaptive work currents. Below I outline how these findings might prove useful to different practitioners within the leadership and higher education leadership spaces:

Peers, managers, and coaches of complex-thinking leaders.

This research may help individuals in these roles more effectively recognize, reward, and support leaders who are thinking and working in ways that are described in this paper. As the literature suggests, and at least two of my cases demonstrate, leaders who engage in the kinds of boundary-spanning and identity shaping work outlined in this paper can be overlooked or criticized when they prioritize activities such as ripening issues, exploring nonobvious connections, developing foundational relationships, and otherwise creating conditions they feel are necessary to promote broader engagement and more sustained collaboration. Also, this research may support these managers in more effectively engaging complex-thinking leaders in the kinds of work that can benefit from their expansive intentions and illuminating, calibrating, co-constructing, and connecting practices. Examples of roles that would seem to be a good fit for these capacities are listed below:

- Internal or external consulting roles that can benefit from the leader's close attention to timing and placing of specific kinds of adaptive work, assessments of ripeness of different issues, and attunement to symbolic interpretations of change events.
- Roles that require development of cross-boundary relationships and inter-institutional partnerships or that build capacity of the organization or its members to do so.
- Roles that require creating conditions that promote collaboration and emergence, rather than heroic vision-setting and associated mobilization of resources against that vision.
- Bridging roles that keep initiatives connected to related lines of work in other organizations or organizational units

- Creative roles that involve, or support, development of innovative processes and counter-cultural practices; spearheading culture transformations, such as diversity work.
- Leadership or organizational development roles within multicentered networks.

Peers and managers of complex-thinking leaders may find it particularly useful to acknowledge, and help complex thinkers remember, that, as Williams (2005) also points out, not all adaptive efforts are creative efforts that will incite the community to try something that's never been done before. Rather, the foundational work that these cases illustrated (e.g., building trusting relationships, developing shared assumptions and parameters to institutionalize more strategic budgeting practices, defining and articulating educational outcomes), can provide leaping off points for subsequent creative work and may be just as essential and just as adaptive as the creative work, although perhaps more likely to be overlooked as critical elements in a multi-year adaptive change arc. Keeping complex thinkers motivated through this work and communicating valuation of their contributions may be critical to keeping them in the organization. Also, colleagues in these roles can help complex-thinking leaders recognize when they are demanding ways of thinking that are beyond the capacity of most professionals.

Leaders on the threshold of tier three complex thinking capacity, as well as coaches and managers of these individuals.

This research serves as a resource for individuals in this group who seek to identify practices that will help promote development of more complex ways of thinking and acting. For example, these readers may draw on findings from the cases or from the discussion in Chapter 7 to define safe experiments based on these ways of thinking and acting. More research is needed to determine whether such experiments hold empirical merit as a

mechanism for promoting growth; however, Berger's (2012) assertion that asking different kinds of questions grounded in more complex logics than your own is a useful developmental prompt suggests that the idea of deliberately taking up practice grounded in more complex logics is worth considering. Vygotsky's (1978) idea that learning can be scaffolded through introduction of supports that encourage ways of thinking and acting that are not yet self-motivated lends further support to the notion that deliberate efforts to practice the strategies outlined above may serve a useful function in the developmental process. As Kegan and Lahey (2009) might caution, such experiments should be designed carefully to ensure that proper supports are in place and failed executions do not bring dire consequences (e.g., practice first in safe spaces or with trusted colleagues).

One such form of experimentation may involve deliberately practicing lines of inquiry that challenge the tier two individual to direct her gaze beyond her complexity comfort zone and dis-embed herself from her own processes of constructing understanding. Table 27 below shows a sampling of the kinds of questions that leaders in this study describe as useful for guiding their own reflections and actions or for supporting their efforts to engage others in thinking more complexly. Intentionally asking such questions may be a useful form of experimentation.

Table 27. Kinds of Questions that Participating Complex-Thinking Leaders Ask.

Question	Function
• What's missing from this? • What is, or could be, our place in that larger process?	Directs attention to larger reality
• What do you really want to do? • What are you trying to accomplish (beyond that immediate goal)? • What's the discussion that we want to have?	Encourages reflecting on intentions/ situates goals in larger frame
• How else might we interpret that? • What story can we tell that we want to grow into?	Encourages awareness of constructed reality
• What might an optimal balance between these two values look like? • How might we embrace it (idea, relationship) without crushing it? • How might we define our goals or process differently to attract more resources and meet the needs of more constituencies?	Promotes less dichotomous/ more dialectical thinking
• Is there a scenario you can imagine in which this would become unsustainable over time? What would make it more sustainable? • Let's play that out over a longer timeframe. What shifts will our early successes bring? How might these impact subsequent efforts?	Promotes use of longer time horizon
• What counterintuitive moves might we consider? • How might that (contradicting idea) also be true?	Encourages nonlinear/ paradoxical thinking
• What unintended consequences might this approach bring about? • Who might I talk to outside my own 'circle' to answer that?	Promotes longer time horizon and trans-systems thinking

Complex-thinking individuals.

Leaders with complex thinking capacity may find the rich descriptions of leadership practice provided in this report useful as a mirror for reflecting on and honing their own practice. They might notice in the case chapters or discussion, variations on themes that they recognize from experience, but endeavor to harness more fully or understand more deeply. For example, some leaders may quickly recognize and relate to the kinds of value-reality gaps identified by Harold. Others may wrestle more regularly with critical ambiguities. Still others may recognize themselves in Sherry's work on identity fractures. On a similar note,

perhaps certain strategies outlined in Chapter 7, or particular ways of redefining goals in the face of organizational resistance (e.g., Sherry's self-directed, self-contained, and foundational 'projects') will sound particularly familiar to readers.

Readers may view these resonant notes as invitations to go deeper into a particular case, or taking the opposite approach, as an opportunity to examine these aspects of practice through a different lens. Second, leaders with comparable levels of capacity to these participants may find this report useful for foregrounding some of the emergent capacities they have begun to unconsciously apply, but remain subject to and thus are less able to see and reflect upon. For example, descriptions of how dialectical thinking and the fifth order logic of coherence are reflected in these participants' practices may enable leaders who are just developing these capacities to apply them more intentionally or differently. Leaders in this group may also find parts of this report useful as a reminder to be patient with others who are unable to join them in thinking complexly and may wish to experiment with strategies outlined in Chapter 7 for enticing less complex thinkers to engage in co-construction and related activities.

Higher education sector leaders.

Like leaders in all sectors of society today, leaders in higher education face many complex challenges, several of which run prominently through the three cases in this study. For example, two problems that stand out in the data as shaping some aspect of just about every challenge identified by these three leaders are 1) High fragmentation at every level of the system leading to a culture of competitiveness and self-preservation that thwarts collaborative efforts; and 2) Growing scrutiny of the rising costs of higher education paired with the introduction of new low-cost models using alternative outcome measures. Below I

call out in summary fashion some of the many ways this research suggests complex-thinking leaders might serve as a resource for helping the field tackle these and other problems:

- Help members of different factions identify points of value alignment located at the center of the larger community containing their faction, and orchestrate changes oriented at promoting greater realization of those shared values.
- Apply awareness of different factions' constructions of the issues to promote greater cross-factional understanding of the larger reality facing the collective, and use deliberate irony to appeal to existing values in order to engage them in collaborative work that will expose them to a wider set of perspectives on the issues as well as provide them with opportunities to shape a new larger reality in which they have an acknowledged place.
- Take actions that hold symbolic value to signal a shift toward a more collaborative culture.
- Offer key constituencies opportunities to co-construct goals for the change effort and a vision for the post-change reality.
- Create safe spaces in which more collaborative approaches can be comfortably pursued, and encourage experimentation within these spaces.
- Intentionally cultivate development of cross-boundary identity constructions while continuing to honor unique factional identities.
- Use stories and artifacts to help groups articulate and concretize their shared values, goals, and visions; and encourage them to hold those articulations loosely, using them as common reference points for continued reflection and refinement, rather than strictures on what's possible.

- Continually calibrate factional and larger goals and strategies to accommodate shifting environmental conditions, and to move dialectically between developing the parts in ways that are informed by guiding values of the whole, and developing the whole in ways that invite and honor a meaningful place for the parts—or help manage distress associated with identity constructions and symbolic interpretations when certain parts no longer have a viable place given the larger developmental arc of the community.

As a concrete example of where this may apply, each of my participants expressed frustration at the lack of arenas outside their own organizations where they could bring their concerns and actively participate in collaborative dialogues aimed at moving the sector forward – not in a ‘let’s find the answer’ kind of way, but in a ‘let’s learn from each other about the specific concerns and unique situational factors we face and co-construct some shared principles to guide us in a multicentered process of experimenting with different solutions that are aligned with those principles, but leverage our unique organizational strengths and other local conditions’ kind of way. This, to me, is a clear call to action to provide the kind of ‘safe spaces’ for collaboration at the sector level that these leaders are providing within their organizations and pockets of inter-organizational activity. If such space were developed by leaders with complex thinking capacities such as those demonstrated by leaders in this study, or even more complex, it may guard against orchestration of narrowly defined solutions that become too readily adopted by sector leaders based on their “sanctioned” status having emerged from such discussions. Industry groups are organized by interest group, perhaps reinforcing the ‘echo-chamber’ model of inter-organizational dialogue. The findings from this study suggest that dialogues and inter-organizational experiments that cut across factional lines within communities (e.g., research

universities, public universities, online universities, competency-based programs, etc.) might prove particularly useful for both advancing the interests of the sector, and helping interest groups within it ask not only what is good for us, but also how might we define what is good for us in ways that will make our contribution to the whole more impactful.

Benefits & tradeoffs for the complex-thinking leader.

Findings from this study suggest that redefining levels of thinking complexity may afford the following benefits to leaders who exercise them:

- **Fit for broad range of circumstances.** As all of the cases demonstrate, but discussed most explicitly for Sherry, situational attunement provides radar for opportune moments in which particular goals can be pursued, strategies applied, or people engaged. It allows for redefinition of strategies based on double-loop-learning, which enables adjustments for changes in a shifting landscape such that different strategies can be pursued over time. Leaders are then less likely to outgrow the situation or have the situation outgrow them. They can flex and change as the situation shifts, and guide others through the uncertainties associated with those processes
- **Resilience.** While these redefining leaders are not immune to the emotional distress caused by such things as sudden identity fractures, their ability to interpret these fractures through multiple lenses, *and recognize that they are doing so* provides more options for exploring different ways of making sense of situations that preserve possibilities of continuing to work together, to reshape assumptions, and to heal fractures, rather than feeling the need to exit the situation. The longer time horizon held by these leaders enables them to interpret less directly impactful short-term goals and strategies as tolerable, if they believe these interim steps

generate learning or other benefits that boost their capacity to contribute in wider-scoping ways in the long run. Holding goals loosely and embracing the need for mid-course corrections fuels these participants' willingness to deal with what happens when they experiment with different ways of thinking or acting that may or may not achieve the effects they had hoped. They are able to deal with the consequences of being killed off, not being joined creatively, and having to hold and host everyone, although at times this tires them out. They express willingness to take on the burdens of uncertainty, risk, and even failure on behalf of others and the community at large.

At the same time, this study suggests that leaders at this stage may become frustrated by the following factors:

- **Invitations to collaborate are ignored or rebuffed.** Findings suggest that it can be a source of frustration when complex-thinking leaders don't realize or don't remember that others don't see the connections that they do, naturally understand value tensions using dialectical structures of thinking, or consciously reflect on the ways that they are interpreting situations. In other words, complex-thinking leaders may not give sufficient attention to the reality that it can be difficult for people to join them in thinking in more complex ways when they are yet to develop the capacity to do so. Berger (2012) similarly names forgetting that others don't see the connections you do as a key drawback of having complex thinking capacity. My research findings are consistent with this assertion. For example, although Harold empathized with presidents' positions based on his understanding of how they might be interpreting different factors shaping the situation, he was frustrated by lack of receptivity to his invitations to join him in

trying to “figure out” how to best promote dynamic balance between the values of autonomy and oversight, or to redefine how system colleges might utilize the call center, or to explore new ways of partnering to achieve efficiencies and synergies. As I described earlier, there are a number of different strategies complex-thinking leaders might use to incorporate the kinds of “psychologically spacious” (Berger, 2012) approaches that will mitigate the effect of capacity gaps on willingness to collaborate.

- **Not being seen or valued as you are.** Findings also suggest that decisions and actions grounded in complex thinking can be misinterpreted, undervalued, or overlooked. Although examination of senior leadership actions in Sherry’s case is beyond the scope of my data, Sherry’s comment that one of the most satisfying things about the new provost’s acknowledgement of Sherry’s contribution to the core curriculum was “simply being seen” and her articulation of the change in levels of leadership support as the “new era” point to the psycho-emotional value of being recognized for the unique contributions you are able to make, and, on the flip side, feeling unacknowledged or publicly mischaracterized can be highly demotivating, or even feel devastating. As mentioned above, this research may be a good resource for helping peers and managers better recognize, reward, and provide useful feedback to complex-thinking leaders.

Implications for Theory

I found the theories I was working with incredibly robust for explaining my findings. As explained in Chapter 7, I found Kegan’s logics of coherence and subject-object structure particularly useful as unifying concepts for making sense of how underlying structures of thinking may be motivating different kinds of action I observed in my cases. Also, many of

the action themes I uncovered map to actions associated with complex thinking as defined by Torbert or by others using developmental action inquiry or subject-object theory, as called out in the analyses interwoven throughout the chapters. As mentioned earlier, I did not systematically code for the specific forms of complex thinking, or for behaviors associated with complex thinking defined in the literature. Rather, I used these constructs to understand and interpret themes in ways of understanding and acting that I was seeing in the data.¹⁹ My primary emphasis on emic coding, and use of the theories to interpret themes and patterns uncovered (rather than to locate instances of complex-thinking), make these consistencies more noteworthy. For example, I did not look specifically for instances of awareness of the constructedness of reality and of honoring the partiality of all constructions. However, the 100+ emic codes created for each case and holistic sensemaking artifacts I created led me most consistently to those constructs to explain what I was seeing.

A few exceptions to these general statements apply. First, I was not expecting to observe the use of *dialectical thinking* as much as I did, given the emergent state of the 5 structure suggested by participants' SOI and GLP scores—4(5) and *redefining*, respectively. At the same time, the more I saw dialectical structures of thinking in play, the more I was convinced that there was more to know about how this structure was operating, and shaping understanding and action. My difficulty identifying how this structure was contributing to shaping leader's behavior, or how it was reflected in the evolution of their thinking, left me feeling that more data was needed to draw more extensive empirical conclusions with respect to the operation of this manifestation of complex thinking. Participants in this study did not seem to be exercising trans-systems thinking, and yet they seemed to use dialectical

¹⁹ As described in the methods, I did conduct targeted etic coding against a handful of these defined constructs in cases where it was unclear how to interpret themes uncovered and I needed to gather additional instances of similar data to inform my analysis.

thinking as defined by Basseches (1984) and Nisbett (2003). It was almost as if participants were transforming trans-system complexes from the inside out, rather than from a differentiated position. Perhaps this reflects their unconscious use of the structure, rather than differentiated reflection on its use. Also, all three participants provided an unprompted description of themselves as being pragmatic, explicitly defined it in a way that specified the pragmatism was pointed at ultimate aims or bigger objectives, and made a point of distinguishing it from what is typically understood by the term pragmatism and commonly used by goal-driven leaders. These distinctions drawn by my participants are consistent with a distinction drawn by Basseches (1984) between a less complex form of pragmatism which “can be equated with short-term expediency” (p.221) and a more complex form which involves the “organization of assumptions of pragmatism within dialectical thinking which locates practical choices within historical processes characterized by fundamental change” (p.221).

Another way in which my findings don’t map exactly onto the literature is that none of my leaders expressed a sense of feeling paralyzed by indecision as a result of the many choices made available by the knowledge that reality is constructed. Specifically, Torbert includes in his list of individualist characteristics, “possible decision paralysis” (p. 102). However, each of my participants readily took creative actions to seize opportune moments and advance work whenever conditions made it possible to do so. Perhaps this is because the particular leaders I studied hold considerable power in their organizations and maintain a strong self-authored view that aligns, in many ways, with the objectives of their role. Although in Sherry’s case this is not entirely true as she was thwarted from applying her ‘big vision thinking’ early in her tenure. Alternatively, perhaps it is other characteristics these leaders bring to their role that enables them to make choices when a plethora of possibilities

are presented; my participants were, after all, selected for their track record of effectiveness as adaptive leaders and, thus, likely bring other important skills to the job. Finally, while none of these leaders mentioned feeling paralyzed, each of them mentioned facing the challenge of feeling either that they had taken on so much work that it had begun to impact either work/life balance or to put them behind on some of the more mundane aspects of their job that tended to get sidelined when they are busy. One participant also mentioned recently hiring a coach to help with, among other things, better prioritization.

Future Research

Examining uses of specific forms of complex thinking in action contexts.

Continuing the line of thinking above, it appears that a study focusing specifically on the uses of dialectical thinking by complex-thinking leaders might yield useful insights about the way this particular manifestation of complexity supports leadership work. Such a study could recruit complex thinkers at later stages (or sub-stages using Kegan's theory) within tier three to provide a more substantive foundation for examining the 5 structure in action—however based on my data, I'm not certain this is necessary as a more systematic examination of that subset of my data (which was out of scope for my study) may yield interesting results. Perhaps better yet, a comparative study of how dialectical thinking is used by early tier three leaders and by more complex-thinking leaders could uncover important insights about how to help early tier three leaders grow into their dialectical thinking capacities, and deploy them more intentionally to promote adaptive change. Other forms of complex thinking that appear frequently in my interpretations of participants' understanding, and that could benefit from more focused examination in practice contexts include (among others):

- Fluid relationship to time, timing, pacing, moving between multiple timelines (short, mid, long) and frames of reference (historical, present, future)
- Awareness and shaping of multilayered identity structures (Kegan's (1982) interpenetration of selves)
- Attention to and leveraging of symbolic meaning
- Reflexive relationship to goals and strategies promoting regular double-loop learning.

Examining interactions between multiple contributors to the adaptive leadership dynamic: amplifying effects of multiple complex-thinking contributors/ dampening effects of not being seen, understood, and joined.

On another note, this study uncovered several interesting themes in the ways that these complex-thinking leaders' behaviors, and perceived level of impact on the system, were shaped by the presence of other leaders in that system who were positioned to either (a) recognize, authorize, or amplify the kinds of cross-boundary collaboration and process-connecting work these leaders sought to undertake or (b) take up their invitations to co-construct aspects of their shared reality and join them in thinking collaboratively about new possibility for action. Both Harold and Sherry point to the presence of certain leaders in the system, whose complexity I can't assess empirically but whose ways of thinking and acting as described by participants support a hypothesis of tier three complexity, as integral to their assessment that the organization was ripe for the kinds of adaptive work they are capable of influencing. Janine also mentioned the importance of certain relationships she enjoys with members of her senior staff who are able to really push her thinking in useful ways as well as take up difficult adaptive work on their own. Several of these administrators were present at meetings I observed and, while I can't support it with evidence, I would not be surprised to learn that one or more of them have developed complex thinking capacity. Thus, in all three

cases leaders point to the availability of sounding boards, collaborative-partners, or allies who hold prominence in their mind as facilitators of their work.

These findings, in combination with the contrasting cases, in which Sherry feels severely limited in her ability to impact the organization in ways that she feels she could have prior to installation of the new provost, and Harold felt hamstrung in his influencing efforts prior to realization of a “critical mass” of Board members who see and understand what he is trying to accomplish, suggest there are important insights to be uncovered about the way these relationships affect complex-thinking leaders’ work. Further supporting the value of additional research in this area, Drath (1990) argues that development of complex thinking capacity can actually limit leadership effectiveness because organizations are not structured to recognize and reward their ways of thinking and working. While Drath suggests that developmental transformation on the part of the organization is needed to support effectiveness of complex-thinking leaders, my findings suggest a more local alternative. The availability of one or more well-placed colleagues or managers who can support, sanction, and amplify the efforts of complex-thinking leaders, seems possibly sufficient to promote effectiveness. More research investigating these different leader-organization and leader-leader complexity combinations would be of value.

Empirically exploring links between the *exercise* of complex thinking, or *performance* of particular complex-thinking informed behaviors, and effectiveness.

Although I did not assess leadership effectiveness, leaders reported a sense of progress in their adaptive work. In Sherry’s case my observation data also include multiple third party reports that her contributions are having the kinds of effects she describes. These early and anecdotal reports of effectiveness would be bolstered by more systematic examination of the effectiveness of complex thinking informed leadership practices on the ground. Because the extent of analysis required to link actions to underlying thinking

processes is so significant, if studies incorporate effectiveness measures they should be carefully scoped to provide manageable datasets. This might be done, for example, by looking at more measures for one leader (e.g., analyzing thinking, behavior, and effectiveness as measured by such things as 360-degree reviews or other leadership effectiveness measures, qualitative assessments of outcomes, or interviews with others in the environment). In light of findings from this research suggesting that leadership behaviors motivated by complex thinking can sometimes be misinterpreted—a finding that has mixed support in the literature (McCauley et al., 2006)—such studies may want to incorporate multiple stakeholder interviews to determine whether effectiveness ‘failures’ might be partly a function of others’ misinterpretations of their actions, such as when complex-thinking leaders pursue counterintuitive, indirect, or paradoxical strategies in the short run to create conditions that are more favorable for adaptive success in the long run. Such studies should also incorporate sufficiently long time horizons to account for the fact that leaders often pursue changes aimed at promoting shifts over the long-term, which may or may not exhibit linear progress in the short-term.

Comparative studies with complexity level as the independent variable.

Since this study focuses exclusively on ways of thinking and acting exhibited by early-stage complex-thinking leaders, there would be value in comparing how less, or more complex-thinking leaders approach similar situations to those examined in this study. For example, this research suggests that the following kinds of questions might be worth exploring:

- Do tier two leaders understand and seek to leverage part-whole tensions, critical ambiguities, or identity fractures in ways that are similar to how early-stage tier three leaders do?

- Do early-stage and later-stage tier three leaders use dialectical thinking, situational understanding, or mutual forms of power in similar ways and to similar effect?
- How do leaders in different complexity tiers, or different stages within tier three understand and approach partnerships, interdisciplinary work, and other forms of cross-boundary collaboration?
- What kinds of questions do leaders in tier two, early stage 3 and late stage 3 ask? What function do these questions play in their work?
- How do leaders in complexity tiers two and three use stories, artifacts, models, and matrices in their work?

Exploring connections with other leadership theories.

Finally, while I used adaptive leadership theory to define the boundaries of the adaptive work being carried out by my participants, and to guide my investigation of their leadership activity on the ground, I did not systematically examine the epistemological demands placed on leaders by different tenets of adaptive leadership theory. Based on my findings, I see value in such work. As mentioned in Chapter 2, Kegan (1994) suggests that adaptive leadership theory poses a postmodern honors curriculum. My findings support this notion by highlighting some of the ways in which my participants regularly draw on their complex thinking capacity to engage in such leadership activities as:

- Co-constructing visions of thriving (e.g. Janine's community developed 1-3-5 and 10 year strategic goals; Sherry's workgroup-developed STEM vision; Harold's joint pathway to the Bachelor of Science in Nursing).
- Institutionalizing processes designed to automatically trigger an increase or decrease in levels of distress in order to keep these levels in the productive range and give the work back to the people (e.g. Harold's budget parameters).

- Creating safe spaces (strong holding environments) where actors in the environment can engage in countercultural ways of thinking and acting, while developing more expansive, multilayered identities that honor both sameness and difference (e.g., Sherry’s STEM workgroup; Janine’s temporary holding environment for student activists seeking to promote more socially responsible investment management strategies).
- Carefully controlling flows of information via paradoxical communication strategies with situationally activated simplifying and complexifying components (e.g. Harold’s communications with legislators).
- Not only uncovering hidden perspectives, but also creating processes that provide opportunities for these marginalized actors to contribute meaningfully to shaping the community’s sanctioned vision of thriving (e.g., Janine’s use of the positioning strategy as a “frame to hang your experiences in”; Sherry’s efforts to keep the STEM workgroup connected to larger strategic planning processes.)

Based on these examples, and my sense of the complexity of the demands placed on leaders by adaptive work, I believe that key tenets of adaptive leadership theory will be understood differently using different complexity levels. For example, my participants’ efforts to illuminate a larger shared reality or larger shared goals, so that different members of the community might work more collaboratively within this larger shared frame to co-construct new action options, is an example of how these complex-thinking leaders understood and approached using an “educative strategy.” I suspect that less complex-thinking leaders would differently understand and approach this type of strategy.

As mentioned above, this study is not designed to (nor can it be used to) empirically test such propositions, given that all participants in this study are at the same complexity

level. However the rich descriptions of how complex-thinking leaders approach different aspects of adaptive leadership work may be used to generate hypotheses that can be tested using comparative studies. Such studies could either look closely at how a larger comparative sample of tier two and tier three thinkers approach a single aspect of the adaptive leadership approach (e.g. educative strategy) or, a smaller sample could be used to look more closely at a broader set of adaptive leadership strategic principles, such as how (if at all) tier two and tier three leaders differently understand and approach: defining/uncovering visions of thriving, diagnosing and managing factional dynamics, identifying and unbundling adaptive challenges, directing attention to these challenges, measuring and managing levels of distress, engaging/mobilizing/giving work back to the community, promoting learning that supports shifts in attitudes, behaviors, or assumptions, protecting voices without authority, etc.

Offering a different example of points of intersection with other leadership theories worth deeper exploration as uncovered by this research, I noticed during my analysis that aspects of Sherry's case well illustrate the four system conditions and nine leadership behaviors identified by Lichtenstein and Plowman (2009)'s as factors that encourage emergence within, of, and across organizations. These authors define emergence as a pattern in which "organizational members or lower level system participants interacted, exchanged information, and acted without coordination from a central decider, resulting in unintended changes at higher levels within and beyond the focal organization" (p. 617). Most interesting here is that the actions of both Sherry and the new provost seem to map closely onto the leadership behaviors outlined by these scholars, raising interesting questions about the way in which key players at different levels of the organization play a role in catalyzing and

amplifying emergent dynamics.²⁰ A closer look at the factors promoting emergence of a more interdisciplinary culture at Urban College could be quite interesting, and could extend Lichenstein and Plowman's analysis by looking at the interaction of embedded processes of emergence in complex organizations.

These points of intersection with other leadership theories, among other points of intersection I expect readers to uncover based on the rich descriptions of how these three leaders understood their work and acted in context, underscore the potential bridging function of this research in the fields of leadership, leadership development, human development, and higher education.

²⁰ While I was tempted to incorporate systematic analysis of this mapping into my study, my initial forays in this direction, while promising, uncovered insights that were somewhat disconnected from my research questions. Thus I put this analysis aside for later.

Coda.
The Dissertation Process in Haiku

Proposal

Committee review:
“naive but intelligent.”
Darkest fears affirmed.

Dense fog slowly seeps
into the windless city.
Lights flicker and fade.

Fumbling in the dark
I do circus tricks and dance.
I’m in my own way.

Gentle white-tailed doe,
spies me through the shadows and
shows me to myself.

I pause for a moment.
There’s ringing in my ears, its
my voice. I’m singing.

“What’s that song?” I ask.
“That’s what we want to know. Please,
do sing it for us.”

Fear in hand, I turn
and find my way home, humming.
Harmonies resound.

Committee review:
naive but intelligent.
Compassion required.

Fieldwork & Analysis I

Accompaniment.
Wisdom to illuminate.
One by one they come.

Joined in inquiry,
we enter the tangled wood
and wind our way through.

Seeking what's grounded,
I forage the forest floor:
digging, digging—stones!

We reach a clearing.
Clutching two small stones I strike:
banging, banging—sparks!

The thick logs alight.
Violet, crimson and ochre are
dancing, dancing—still.

The air becomes charged.
Nothing, everything matters.
Time and tales entwine.

Possibilities
appear before and behind
my widening eyes.

Testing their mettle,
I toss them into the fire—
then stoke and poke.

Mixing and molding,
words, heat, light slowly congeal
into something real.

Embers of insight
are forged by flames and float high,
drifting on currents.

The whistling winds
whisk them away where they
land and light anew.

The gathering disperses.
Something has shifted.
Knowing enters my being.

Writing & Analysis II

Boiling, steaming, dripping rice,
forced through fine-mesh sieve.
Whence will come my muse tonight?
Remember: forgive.

Appendix A

Stages of Development as Conceptualized by Torbert and Kegan, Mapped onto Miller & Cook-Greuter's Four Tiers

Tier	Torbert's Action-Logics	Kegan's Orders of Mind
IV (Post-post- Conventional)		
III (Post- Conventional)	Ironist Alchemist (Magician/Clown) Strategist Individualist	-- 5 Self-transforming (Postmodern/ Interindividual) ²¹ (Transition – Reconstructive) (Transition – Deconstructive)
II (Conventional)	Achiever Expert (Technician) Diplomat	4 Self-authoring (Modern/ Institutional) (Transition) 3 Socialized (Traditional/Interpersonal)
I (Pre- conventional)	Opportunist Impulsive --	2 Instrumental (Imperial) 1 Impulsive 0 Incorporative

Sources (in roughly chronological order): Miller & Cook-Greuter (1994) introduce the four-tier model to organize stages of development; Torbert (1994) maps Torbert's eight stages (also called action-logics) to Kegan's six (0-5) orders of mind, and to Loevinger/ Cook-Greuter's ego-development stages (through Universal); Kegan (1994) describes distinct deconstructive and reconstructive sub-stages in the transition between self-authoring and self-transforming orders of mind. I map them to Torbert's Individualist and Strategist stages, respectively, based on their similarities to these stages. See also Yeyinmen & Rodríguez (2011) and Cook-Greuter (1999); Cook-Greuter (1995) maps the tiers to Loevinger/ Cook-Greuter's stages (through Construct-aware), and to Kegan's orders of consciousness; Cook-Greuter (2000) updates her mapping of tiers to Loevinger/ Cook-Greuter's stages (through Transcendent self). Torbert (2004) introduces new Individualist stage between Achiever and Strategist stages, and maps it to tier III —this brings Torbert's stage count to nine; he also provides new names for Alchemist and Expert stages; Kegan (2000) presents new stage names for socialized, self-authoring, and self-transforming orders of mind. Stage names used in the Global Leadership Profile assessment tool map to Torbert's action logics through Achiever; post-conventional action-logics are modified as follows: Individualist becomes Redefining; Strategist becomes Transforming; Alchemist becomes Alchemical; Ironist becomes. Notice that these modified names are verbs to signify a shift from emphasis on outcomes/ objects to emphasis on process (personal communication, 2015)

²¹ Torbert (1994) maps Kegan's Self-transforming order to Torbert's Magician stage. Cook-Greuter first (1995) maps Kegan's Self-transforming order to Loevinger's Autonomous stage and later (1995) to a position between Autonomous and Construct-Aware.

Appendix B

Interpreting Torbert's Heuristic Mapping Four Territories of Experience onto 1st-, 2nd-, and 3rd- Person Fields of Inquiry/Practice

At the individual (1st-person) level, a person can seek alignment across the four territories (or across the subset which her developmental level enables her to see) by examining her practices of *intending thinking/feeling and sensing/behaving*, as well as her *perceived effects in the world*. Doing so can serve to both (1) expand and deepen the quality of awareness she brings to her leadership practice (and living process) (Torbert, 1994b); and (2) contribute to growing her personal and professional integrity (Torbert, 2004). According to DAI, these assets of greater awareness and integrity support more accurate assessments of the impacts of one's own actions, which, over time, has the potential to lead to more timely and effective contributions. To a leader involved in the difficult process of leading adaptive change, which generally takes place over long periods of time and involves significant personal challenges (Heifetz et al., 2009; Heifetz & Linsky, 2002), this capacity to learn through experience over time would seem particularly useful for staying the course.

At the interpersonal (2nd-person) level a person can seek to broaden and deepen the joint awareness of herself and others involved in a particular interaction by interweaving four parts of speech that DAI maps approximately onto the four territories: fourth—*framing* (e.g., articulating an intention for the interaction; let's talk about improving our teaching practices); third—*advocating* (e.g., specifying a goal or assumption; we need to better align our practices with our mission); second—*illustrating* (e.g., providing concrete details or examples; the low math scores among girls suggest that we are not serving all students equally); and first—*inquiring* (e.g., seeking other's perspectives on an issue; do you agree that girls math scores are a problem or

Appendix B (Continued)

do you see it differently?). The value of this alignment activity is in its potential for generating greater mutuality among participants in the interaction (Torbert, 2004). The greater the mutuality and the exercise of mutual power among participants, the more likely they will trust each other, learn together, and generate wider organizational transformation (Rooke & Torbert, 1998).

At the social-system (e.g., school, community) level (3rd-person), seeking alignment of these territories entails making efforts to bring consistency among the *vision/mission, strategies, performance, and outcomes (via assessment)* of the group/system for the purpose of increasing participants' awareness, empowerment, and productivity (Torbert, 1994b). DAI posits that the benefit of alignment at this level is sustainability of the system/community (Torbert, 2004).

The theory of DAI holds that efforts to align experiences across the four territories can potentially generate learning for all involved while simultaneously contributing to transformational outcomes at the individual, interpersonal and social-systems levels (Nicolaidis & Yorks, 2008; Torbert, 1994; 2004). The more territories of experience a person can examine and intentionally shape, the greater will be her potential scope of influence in the process of generating adaptive change at each of the three structural levels. Efforts to align experience across the territories at multiple levels simultaneously, holds even greater transformative potential, and becomes much more possible with development to the post-conventional tier (Torbert, 2004).

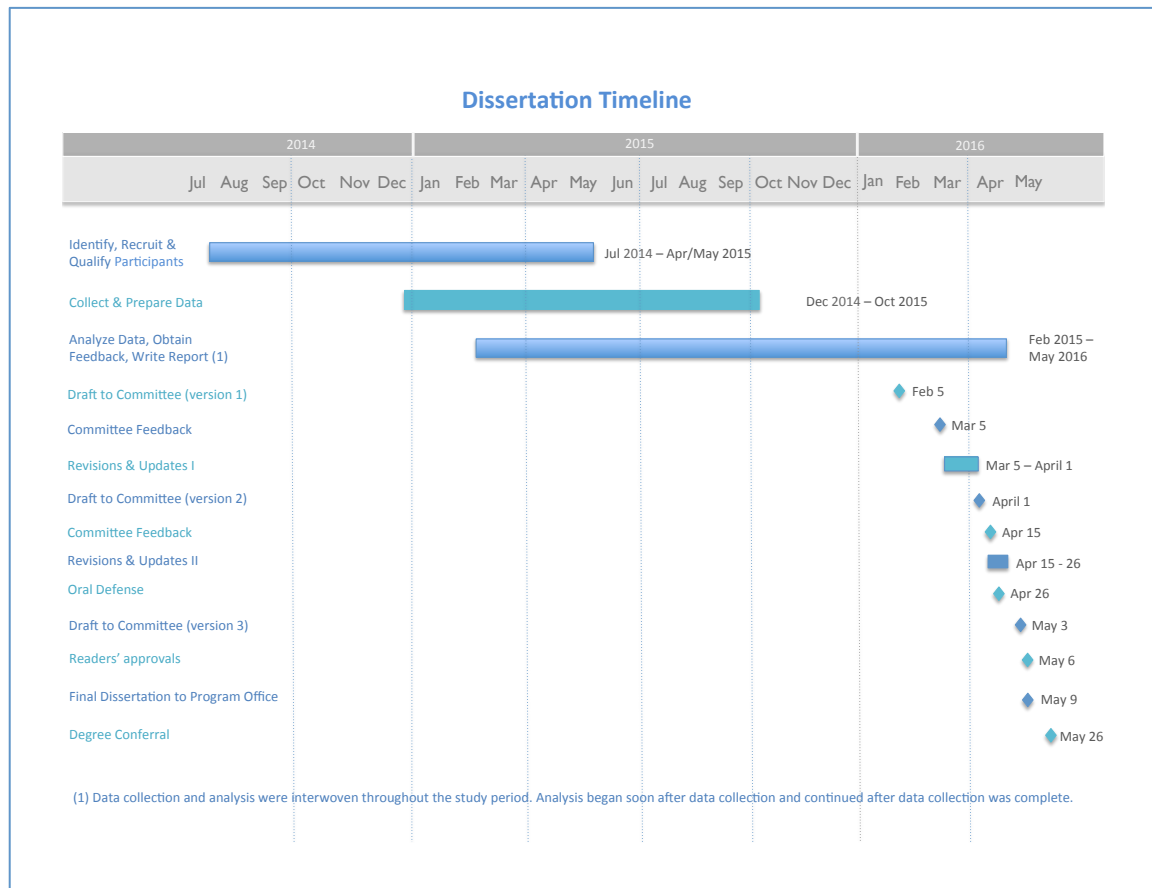
Appendix C

Parallels Between Personal and Organizational Developmental Action-Logics

	Personal Development	Organizational Development
P R E C O N V E N T I O N A L	1. <i>Impulsive</i> Impulses rule behavior <i>(multiple, distinctive impulses gradually resolve into characteristic approach [e.g., many fantasies into a particular dream for a new organization])</i> 2. <i>Opportunist</i> Needs rule impulses <i>(dominant task: gain power [e.g., bike riding skill, capital] to have desired effects on outside world)</i>	1. <i>Conception</i> Dreams about creating a new organization 2. <i>Investments</i> Spiritual, social network, & financial investments
C O N V E N T I O N A L	3. <i>Diplomat</i> Norms rule needs <i>(looking-glass self: understanding others' culture/expectations and molding own actions to succeed in their terms [e.g., a marketable product])</i> 4. <i>Expert</i> Craft logic rules norms <i>(intellectual mastery of outside-self systems such that actions equal experiment that generate new ways of doing business)</i> 5. <i>Achiever</i> System effectiveness rules craft logic <i>(pragmatic triangulation among plan/ theory, operation/ implementation, and outcome/ evaluation—single-loop feedback acted on unsystematically but regularly)</i>	3. <i>Incorporation</i> Products or services actually rendered 4. <i>Experiments</i> Alternative strategies & structures tested 5. <i>Systematic Productivity</i> Single structure/strategy institutionalized
P O S T C O N V E N T I O N A L	6. <i>Individualist</i> Reflexive awareness rules effectiveness <i>(experimental awareness that diverse assumptions may complement one another both for inquiry and for productivity)</i> 7. <i>Strategist</i> Self-amending principle rules reflexive awareness <i>(self-conscious mission/ philosophy, sense of time/ place, invites conversation among multiple voices & reframing of boundaries—double-loop feedback occasionally acted on)</i> 8. <i>Alchemist</i> Process (interplay of principle/action) rules principle <i>(life/ science equals a mind/ matter, love/ death/ transformation praxis among others, cultivating interplay, re-attunement and continual triple-loop feedback)</i> 9. <i>Ironist</i> Inter-systemic development rules process <i>(acceptance of invisible alienation among multiple human paradigms, such that paradigm transformation best approached indirectly through ironic words, gestures, and event-structures)</i>	6. <i>Social Network</i> Portfolio of distinctive org. structures 7. <i>Collaborative Inquiry</i> Self-amending structure matches dream/mission <i>(self-conscious mission/ philosophy, sense of time/ place, invites conversation among multiple voices & reframing of boundaries—double-loop feedback occasionally acted on)</i> 8. <i>Foundational Community of Inquiry</i> Structure fails, spirit sustains wider community 9. <i>Liberating Disciplines</i> Widen members' awareness of incongruities among four territories and skill at generating org. learning <i>(acceptance of invisible alienation among multiple human paradigms, such that paradigm transformation best approached indirectly through ironic words, gestures, and event-structures)</i>

Source: Table design and content (excluding Ironist) taken from Torbert, 2004, p.126-7;
Content for Ironist entry taken from Rooke & Torbert, 1998.

Appendix D Study Timeline



Appendix E
Detailed Schedule of Research Activities

Key	Completed
	Scheduled or in progress

Research Activity	Date Completed		
	Leader 1: Harold Chancellor, public college and university system	Leader 2: Janine President, small nationally recognized liberal arts college	Leader 3: Sherry Dean, College of Arts & Sciences within top-ranked private college
Request for intro accepted	Nov-07*	Jan-30	Mar-31
Research memo sent	Nov-10*	Feb-02	Mar-31
Intro meeting completed	Dec-02*	Feb-05	Apr-06
Leader signs on	Dec-02*	Feb-05	Mar-31
Roadmap email sent	Dec-12*	Feb-06	Apr-06
SOI completed	Dec-18*	Mar-02	Apr-08
SOI transcribed/verified	Dec-23*	Mar-09	Apr-13
SOI scored	Jan-28	Apr-03	Apr-15
SOI analyzed/emic coding	May-08, 20/Jul-22	Jul-09	Aug-14
GLP requested	Feb-02	Mar-04	Apr-09
GLP returned/sent for score	Feb-20	Mar-06	May-01
GLP scored	Mar-08	Mar-24	May-06
1 st IDI conducted	Feb-12	Mar-11	May-04
1 st IDI transcribed/verified	Feb-27	Mar-17	May-13
1 st IDI analyzed/emic coding	Jun-17/Jul-16	Jul-12	Oct-15
Focal challenge(s) selected	Mar-19	Mar-18	May-12
Observations of leaders at work	Mar-19 to Apr-17 (15.5 hrs)	Feb-06 to Sep-03 (27.25 hrs)	Jun-08 to Sep-29 (15.0 hrs)
Observations reviewed/coded	Jun-17	Sep 23	Oct 19
2 nd IDI conducted	Jun-19	Jul-30	Oct-21
2 nd IDI transcribed/verified	Jul-21	Aug-12	Feb-04^
2 nd IDI analyzed/emic coding	Jul-23	Jan-22^	Feb-10^
3 rd IDI conducted	Aug-10	Aug-18	Nov-04
3 rd IDI transcribed/verified	Oct-23	Jan-22^	Feb-04^
3 rd IDI analyzed/emic coding	Nov-10	Jan-23^	Feb-10^
Peer debriefs	May-08, Aug-13, Nov-12, Jan-28^, Feb-12^, Mar-24^		
Integrative within-case analysis	Mar-18^	Mar-26^	Mar-20^
Emergent findings to participants	Feb-03^	Feb-03^	Mar-17^
Integrative across-case analysis	Mar-30^		
Draft cases to participants	Apr-08^	Apr-08^	Apr-08^
Draft report to participants	Apr-19^	Apr-19^	Apr-19^

*Indicates date in 2014. ^Indicates date in 2016. Remaining dates are in 2015.

Appendix F

Research Memo with Study Overview

Karen C. Yeyinmen

Advanced Doctoral Student
Harvard Graduate School of Education
13 Appian Way, Cambridge, MA, 02138

Memo

Re: Research Summary for Study of Exemplary Higher Education Change Leaders at Work
Date: February 2, 2015

I am an advanced doctoral student at Harvard Graduate School of Education working under the guidance of my advisor, Bob Kegan. For my dissertation I will be taking an in-depth look at the lived leadership practices of three exemplary change leaders in higher education who are:

- ✎ Recognized for past success leading change in large systems (e.g. via honors, awards, news)
- ✎ Actively involved in promoting adaptive change in higher education (e.g. currently supporting systemic change within colleges and universities or their affiliated centers and institutes)
- ✎ Notable for their capacity to think about their work in highly expansive and integrative ways
- ✎ Located driving distance from Cambridge, MA

Research and theories link the use of integrative mental models to effectiveness at transforming complex systems such as institutions of higher education; however large gaps exist in our knowledge of how these relationships operate. My study will help fill these gaps by examining up close how three exemplary higher education change leaders carry out their work on the ground in particular settings and situations, and draw on integrative mental models in the process of doing so. Findings from this research will help answer critical questions about how to address the many complex problems facing higher education and, more generally, our twenty-first century society.

The value of this study will depend, in part, on participating leaders' willingness to confidentially 'let me in' to their ways of thinking about leadership, and to bring their fullest selves to observe and reflect on their work, even as it unfolds. It will also depend on my ability to remain fully present to participants, listen deeply to their stories, and construct meaningful accounts of their individual and collective experiences, a process for which I feel well prepared thanks to my undergraduate studies at Brown University (Psychology '91), graduate work at Boston College (MBA '94, close work with Bill Torbert) and scholarly endeavors here at Harvard (Ed.M '10, teaching for Bob Kegan and Ron Heifetz, 'exemplary paper' designations from Bob Kegan and Sara Lawrence-Lightfoot, editor and co-chair for the Harvard Educational Review, and an article published in the Journal of Human Rights Education). I also have professional experience working as a researcher and consultant in organizational settings (e.g., Abt Associates, Fidelity Investments).

Although the fieldwork for this study will last about 6-8 months, each leader's active involvement will be more contained. Specifically, I will request that each leader take part in the following activities:

- A 75-minute opening interview to be conducted in February 2015, and focused on exploring how the leader makes sense of leadership situations encountered in the recent past.
- Completion of the Global Leadership Profile, a self-administered leadership style assessment that takes approximately one hour to complete and is analyzed by an independent reviewer.
- Three 90-minute in-depth interviews, each focused on a different aspect of the leader's ongoing work. These interviews will take place during the 3-5 months following the opening interview.

Appendix F (Continued)

Karen C. Yeyinmen

- With every effort taken not to disturb normally scheduled activities, I will observe each leader carrying out his or her work in a variety of situations and settings, such as at speeches, meetings, and community events. Observations will take place between the first and second in-depth interviews, and will frame the situations to be explored in the second in-depth interview.
- Once or twice during the study, I will submit to each leader a summary of emergent findings and invite feedback. In addition, I will submit to each leader a draft copy of all sections of the final report that are based on that leader's work (keeping in mind that all identities will be masked), and honor timely requests to revise or remove specific interpretations or supporting details.

All interviews will be recorded and transcribed. Participants' identities will be kept strictly confidential. Participants' names and identifying details, such as employing institution and the names of specific people and groups with whom they interact, will be masked in all reports.

Please contact me using the information below if you have any questions.

Researcher: Karen C. Yeyinmen

☎ Phone: 617-497-2644

☎ Mobile: 617-272-5915

☎ Email: kcy759@mail.harvard.edu

Dissertation Committee:

☎ *Robert Kegan (Chair)*, The William and Miriam Meehan Professor in Adult Learning & Professional Development; Educational Chair, Institute for Management and Leadership in Education (robert_kegan@gse.harvard.edu)

☎ *Eileen McGowan*, Lecturer on Education (mcgowaei@gse.harvard.edu)

☎ *Jal Mehta*, Associate Professor of Education (mehtaja@gse.harvard.edu)

Appendix G
Recruiting Email with Request for Introductory Meeting (Sample: Janine)

From: Karen Yeyinmen
Subject: Meeting Request: Learning from Your Experience
Date: January 30, 2015 3:30:59 PM EST
To: XXX

Dear XXX,

What is it like to lead adaptive change in higher education while holding a complex view of what's needed? Based on my research I believe you can answer this question and thus have important insights to share about how to support emergence of a better world. I would value the opportunity to speak with you.

I am an advanced doctoral student at the Harvard Graduate School of Education (HGSE) working under the guidance of my advisor, Robert Kegan. For my dissertation I am studying the lived leadership practices of three exemplary leaders in higher education. Designed to bridge theory and practice, my study will confidentially engage each of these leaders in reflective dialogue about their most challenging work, even as it unfolds. Since the leaders I hope to attract are rare—they are exemplary in both their past leadership success and the complexity of their current work and thinking—and I believe you are among these exceptional few, I am hopeful that you will consider offering a window into your leadership practice via confidential participation in this qualitative study.

Would you be willing to meet with me for 20-30 minutes to learn more about the study and explore the possibility of offering your case as one of three focal points for this research? If so, please let me know the best process for getting on your calendar.

Respectfully yours,

Karen Yeyinmen

Karen C. Yeyinmen, MBA, Ed.M
Advanced Doctoral Candidate | Harvard Graduate School of Education
Action Learning Consultant | Context Management Consulting
617-272-5915 | kcy759@mail.harvard.edu

Appendix H
Onboarding Email (Sample: Sherry)²²

From: Karen Yeyinmen
Subject: Leadership Study: Roadmap & Next Steps
Date: April 6, 2015 at 3:27:41 PM EDT
To: XXX

Dear Dean XXX,

I am delighted that you have agreed to participate in my study. I look forward to facilitating a process of reflection, observation, and dialogue that will honor and illuminate the multiple dimensions of your leadership practice. To get us started, below is a summary of the timeline and research parameters we discussed on the phone today.

Confidentiality in the spirit of co-inquiry. Your identity will be kept strictly confidential throughout the course of this study. This was a deliberate design choice aimed at supporting us in speaking freely about your leadership practices and approach. Since I aim to understand what it's like when you draw on your fullest capacities to address some of the thorniest challenges you face, I invite you to enter this study with a spirit of co-inquiry around both what's happening and what's possible in your leadership work. At the same time, I appreciate your acknowledgement that those who are highly familiar with your work, or who are present in situations I observe, may recognize you in some of my descriptions. I will hold these considerations in mind as I make choices about how to present my findings and you will have final say about what details I include for your case.

Roadmap & timeline. I have attached a roadmap of the research journey ahead depicting an iterative process that moves between fieldwork and analysis over the course of several months. I have loosely mapped the major activities onto a timeline to assist us with planning and scheduling. I will aim to complete data collection for your case before the end of June, however we can revisit this timeline again once we select the focal challenge(s) for your case and to ensure sufficient time for analysis between the different activities. I will be making every effort to accommodate your needs while at the same time seeking to obtain the most useful data possible. Please let me know if you have any questions or concerns about the pace or timing as these unfold.

Selecting a focal challenge. As we discussed briefly this morning, during the first in-depth interview we will work together to select one or more adaptive challenges or lines of adaptive work to help focus our inquiry during subsequent research activities. I refer to these as the *focal challenges*. I anticipate that these challenges will emerge organically from our first in-depth interview; however here is a quick sense of what one might look like. An ideal focal challenge will incorporate a significant adaptive component, which means that values are at stake, the way forward is unclear, formal authority is not enough to advance the issue, and learning is required by the community. Hopefully it will be a challenge that is meaningful to you and to others that you serve or represent, and it will be something that you are actively working on between now and June. It may be of mutual value if the focal challenge demands or inspires your working in ways that stretch you to the edge of your comfort zone or, perhaps at times, even beyond. The value of this research lies in its

²² Attachments referenced in this email are not included as part of Appendix N. The roadmap has been incorporated into the methodology chapter and the three consent forms as separate appendices referenced in that chapter.

Appendix H (Continued)

focus on exploring what it is like, and what happens, when you and the other leaders in this study call upon your most expansive selves in the course of carrying out your work.

Selecting situations to observe. Together we will identify opportunities for me to observe you working on the selected focal challenge(s) in the types of situations that demand your active participation and fullest presence. For example, this may include some situations that are characterized by notable levels of ambiguity, uncertainty, value-tension, or complexity. It may also include some more 'typical' situations that you encounter repeatedly in your work, or situations characterized by strong supports that encourage you to take risks or experiment with new approaches. I recognize that certain situations will be off limits for observation due to their highly sensitive nature and look to your guidance for drawing these boundaries. The mix of situations I observe will depend on the focal challenge(s) we select and the kinds of situations you are likely to encounter during observation months. While we may be able to schedule a number of observations up front, we may also find that additional opportunities present themselves as our understanding of the focal challenge(s) and your leadership with respect to those challenge(s) evolve.

Explaining my presence at your meetings (or not). When it seems appropriate to introduce me or explain my presence, such as during observations of closed meetings, we might consider using some variation of the following general language, adjusted as needed to fit the circumstances: "Karen is a doctoral student [at Harvard] who is studying leadership in higher education, looking especially at efforts to promote adaptive change. She finds this to be an interesting case and will be observing [today's meeting; me today] as part of her research. She will not be participating [unless we specifically ask her to do so], will keep the details of our conversation confidential, and has agreed to leave or step out of the room temporarily if issues arise that require a closed discussion."

Formal consent process. I will ask you to sign separate consent forms for the opening interview and *Global Leadership Profile* style assessment at the start of each of those activities. Prior to the first in-depth interview, I will ask you to acknowledge receipt of a separate information sheet outlining the details of the remaining research activities. These forms emphasize the voluntary nature of this study and inform you of your rights as a participant. Copies of the three forms are attached for your preview. I will bring two hard copies of each form at the times mentioned above: one for you to sign and return to me and one for you to keep.

Immediate next steps.

- You and I will meet for the *Opening Interview* on Wednesday, April 8, 1-2:30 at your office.
- Shortly after that, I will forward you the forms you need to complete the *Global Leadership profile* leadership style assessment. If you can return those promptly it would be much appreciated.
- I will work with XXX to get the three *In-depth Interviews* on your calendar, the first later this month, possibly as soon as next week, and the 2nd and 3rd in mid- and late-June, respectively.
- After the first in-depth interview, I will develop a formal schedule of observations based on conversations with you, which we will continue to evolve as the research moves forward. However, please let me know if there are meetings or events in the coming days/weeks that might be good for me to observe, even if we haven't yet formally selected a focal challenge.

Please don't hesitate to contact me with any additional questions you may have.

With greatest appreciation and enthusiasm for our work ahead,

Karen

Appendix I
Agreement Form for Opening Interview

I agree to participate in a recorded interview for a study about how leaders make meaning of their experiences when working to promote adaptive change in higher education. I understand that the interview will last approximately 60-75 minutes and that I will be asked about ordinary experiences (like feeling moved, or being angry or conflicted about some decision, etc.) that I encounter in the course of my leadership work. I understand that my participation in this interview is voluntary and I do not have to answer any questions I choose not to answer. I understand that you will not share my personal information with anyone and that any excerpts taken from this interview, written or spoken, will disguise all names of persons and places so as to preserve my anonymity and privacy. I understand that I will not receive feedback on my interview. I understand that although most people find these interviews engaging and interesting, should I feel like discontinuing the interview for any reason, we may do so at any time.

Date

Signature of Interviewee

Thank you for your generosity in making time available for this interview. You can reach me using the following information if you have questions.

Karen C. Yeyinmen
18 Nathan Pratt Drive, Unit 309
Concord, MA 01742

Email: kcy759@mail.harvard.edu
Phone: 617-272-5915

Appendix J

Protocol for Opening Interview

Greeting & Framing

“Beginning of our formal process of working together...First chance to get to know each other, you as a leader and me as a researcher...Purpose of this interview is to introduce me to your most expansive self, your different ways of understanding your work as a leader and a change agent... Different from other interviews we will do (format, time period, scope) ...First step in entering into process of exploration (maybe reference roadmap)...So far so good?”

Hand Consent form to participant: voluntary, stop or pause at any time, recorded, confidential

Overview

“We’ll spend the first 15 minutes or so with the cards and then talk together for about 45 minutes about those things you jotted down on the cards which you choose to talk about. We don’t have to talk about anything you don’t want to talk about. I will not see or collect your cards. They are only for you to help with your reflections.

Hand cards to participant “Ready to begin?”

1. “Let’s take the first card (SUCCESS). If you think back over the last several weeks or months of your leadership practice, and think about times when you felt kind of triumphant, or that you had achieved something that was difficult for you, or especially satisfying, maybe because you thought it might end differently, what two or three things come to mind? Take a few minutes to think and jot down on the card a few words or sentences to remind you of what came up for you.”
2. (ANGRY) “Now if you think of some times in your recent leadership practice when you felt really angry about something, or maybe felt a sense of outrage or violation, what comes to mind? Again take a few minutes to reflect and use your card to jot some reminders.”
3. (ANXIOUS, NERVOUS) “...if you think of some times in your leadership when you found yourself being truly scared about something, or feeling nervous or anxious about something, what comes up?”
4. (STRONG STAND, CONVICTION) “...if you think of some times in your recent practice when you had to take a strong stand, or felt a keen sense of what you believed should or should not be done about something, times when you became aware of a particular conviction you held, what surfaces?”
5. (CHANGE) “As you look back at your recent past as a leader, if you think of some ways in which you feel you’ve changed over the last few years—or even months if that seems right—are there some ways that come to mind?”

Appendix J (Continued)

6. (SAD) “If you bring to mind times in your leadership when you felt really sad about something, when something tapped a real sense of sorrow in you or perhaps even made you cry or feel like crying, what shows up?”
7. (TORN) “If you think about times when you were leading that you felt in conflict about something, where someone or some part of you felt one way or was urging you on in one direction, and someone else or some other part of you was urging you in another; times when you really felt torn about something. What comes to mind?”
8. (MOVED, TOUCHED) “If you think about some times in your recent leadership practice when you felt quite touched by something you saw, or heard, or sensed, or experienced—perhaps something that even caused your eyes to tear up, or maybe you got goosebumps; something that really moved you. What comes up?”
9. (LOST SOMETHING) “Now think about times you had to leave something behind, or worried that you might lose some-thing or someone; ‘goodbye’ experiences, the end of something important or valuable; losses...”
10. (IMPORTANT TO ME) “If I were just to ask you, ‘what is it that is most important to you as a leader’ or ‘what do you care most deeply about’ or ‘what matters most in your leadership work?’—are there one or two things that come to mind?”

TURN ON RECORDER AND BACKUP “If it’s okay with you I’ll turn on the recorder”

Discuss Experiences

“Now we have about 40-45 minutes to talk about some of these things you’ve recalled or noted.”

“I may take some notes as you speak...”

“Purpose of the prompts was to fill you up with your own recent experiences of doing this very difficult work of leading change in a complex world”

“You can decide where we start...”

“We won’t necessarily get through all the cards...”

“Is there a card that you’d like to start with, perhaps one you feel more strongly about or that really resonated for you?”

“...tell me about the experiences that came to mind for you for and how you make sense of those

“...What kinds of things have you encountered recently in your leadership practice, how do you make sense of them, and how does that process inform how you think and act?”

Closing out

“I see we are at/close to the end of our time. Is there anything else you want to talk about?”

“How do you feel about ending here?”

Goodbye and next steps

Appendix K
Crib Notes for Analyzing Structural Complexity of Opening Interview

Note: All language excerpted verbatim or lightly paraphrased from Lahey et al., 1988

Material that is expressive of structure:

- What does speaker see, reflect upon, take responsibility for?
- What does speaker seem unable to see, reflect upon, take responsibility for?
- What is speaker unable to take a wider perspective on (unable to construct any wider form of reference for the experience, despite opportunities to do so created by interviewer)?
- Which psychological processes does the speaker claim as his own and which does she identify as belonging to the outside (delegated or projected onto others)?

Stage 2

- Can talk about his own needs, but cannot know and talk about being embedded in knowing through his own needs, wants and plans
- Can distinguish own point of view from others point of view (I want to win; my brother wants me to lose)

Stage 3

- Gives to another the responsibility for her own view, with no real choice on her part
- Can distinguish another's point of view from one's own, internalize that other point of view, and use it to guide one's own actions.
- Internalizes society's general respect for authority (without awareness of having done so)
- Constructs oneself as the passive recipient of someone's else's advice, where I have no say in what happens (mutuality is subject)
- Aware of having a number of internal parts or states or points of view, but unable to bring them together into a whole (without external or internalized-external assistance)
- Can take the point of view of another taking her point of view.
- Feels responsible for another's point of view (I feel guilty if he's not happy) & imputes to other responsibility for one's own point of view (he feels badly for depriving me)
- Holds others' /own viewpoints internally (internally interpersonal) vs. holding other's view "out there" as something she can negotiate with to get what (only) she wants.
- Feels obligation to be determined by the views one can internalize (guilty or self-blaming for not meeting others expectations), instead of simply having interpersonal response (such as feeling empathy or regret) about differences between own and other's views)

Stage 4

The institutional self is aware that people have not only differences in values and feelings, but different value- and feeling-generating systems or different self-organizations. However, while a fully institutional person may "visit" another's value-generating system she will not take that other system inside herself to make it an element of her own internal, now larger, value-generating system. While the strength of the institutional self lies in its ability to generate and exercise values and standards, its limitation lies in its identification with the generator, or institution, which creates them.

Appendix K (Continued)

- Can distinguish another person's values from her own
- Can construct a means of evaluating for oneself a point of view (one's own or another's)
- Can construct a view that is independent from others' views, while at the same time being aware of and possibly selectively drawing on those others' views at one's discretion
- Able to take responsibility for the way that multiple internal parts or views are brought together into a whole
- Can see, reflect on, & take responsibility for mediating b/w own & others' POV.
- Speaker can articulate a kind of theory of how the self is, which can be compared and contrasted with other people's selves; other people are let out of the job of providing (the speaker's) self-determining points of view, and can be related to as persons whose views and feelings can be cared for, thought about, weighted or related to, from the perspective of one's own system of meaning; and other people's views are understood by the speaker to arise out of those other people's respective meaning systems
- Speaker can support, sympathize and regret the other's bad feelings about some of her choices, but she does not feel guilty over them; they are his feelings, his choices, and she is not responsible for them.
- Constructs a system or psychological organization that generates its own values in accordance with its own standard, but is subject to the system which generates these values & goals. Cannot consult itself or others about that system in ways which could lead to its modification or trans-formation because it can't take its fundamental organizational principles as object of reflection.
- Aware that different people have different theories of how to do x (e.g., how to help) but cannot step back to see and reflect on one's own self-generated theory.
- The institutional self is disturbed when it is interrupted from exercising its own
- Institutional self doesn't invite others to question basic workings of the value-generator

4-5 Transition

The evolution from the institutional to the inter-individual balance involves a gradual differentiation from this embeddedness in, or identification with, the value generator itself. Competing systems, theories, or forms move gradually from a place completely outside the self (which is identified with its own system, theory, or form) to a place inside the (new) self which is now about the relation between forms and the process of form-creation.

The stage 4 self is identified with ("subject to") the system, which generates its values and goals. It cannot consult itself or others about that system in ways, which could lead to its modification or transformation because it cannot take its fundamental organizational principles as an object of reflection. The evolution beyond stage 4 involves a gradual differentiation from this embeddedness or disidentification within the system-as-constructed. Just as the stage 2 self gradually evolves toward taking the other's perspective inside the self, so the stage 4 self gradually takes as object its own and others' self-systems and thus brings other whole systems and forms inside the new self. The new self becomes a context for the interaction of whole psychological self-systems both with others and within the self. Because the stage 5 self is no longer ultimately invested in any one system or form as it is, interaction among forms and systems can result in modifying such systems or creating new forms. To

Appendix K (Continued)

the stage 4 self the product, i.e., the effect on the system itself, is ultimate. The new stage 5 self, however, creates a context for a process of forming and transforming ideas, theories, or systems.

4/5

The speaker is interested in knowing whether the very system by which he [does something] is working well [regardless of whether that system has supported the best output in a particular case]. It is a system he is interested in modifying; thus, he wants feedback...that will let him know whether his evaluations of himself are accurate. Essentially, we see this interest in this kind of feedback as evidence that he is not ultimately identified with his own self-system. He tells us that his sense of competence can come from reasoning that his own self-evaluations are disconfirmed. He can be quite “wrong” and yet “successful” if he has made a context for discovering his wrongness; his sense of efficacy or success is not exclusively a function of his product’s efficacy or success.... The transforming capacity of his state 5 self seems ultimately a means toward the formulation of a better-running self-reorganization.

Stage 5

- Demonstrates that her activity within her relationships or situations is the consequence of multiple systems, each with its own (possibly competing) agenda, all within her.
- Can separate in her mind, and see how her activity within a given relationship (situation) is the consequence of multiple systems, each with its own (possibly competing) agenda, and can see that these separate systems can exist and operate simultaneously within her, and can take responsibility for her part in these different (multiple) systems, rather than assigning responsibility for one or more of them to some other person (e.g., victim and victimizer, both constructed by her and in which she participates)
- Takes own fundamental organizational principles as an object of reflection. Can see and consult itself or others about the system used to generates own values in ways that could lead to modification or transformation of this system.
- Takes as object its own and others’ self-systems and thus brings other whole systems and forms inside the self.
- Self is a context for the interaction of whole psychological self-systems both with others and within the self.
- Self is no longer ultimately interested in any one system of form as it is; interaction among forms and systems can result in modifying such systems or creating new forms.
- Self creates/serves as a context for a process of forming and transforming, ideas, theories, and systems.
- Competing systems, theories or forms have moved from outside the self (where they can be recognized as discreet systems out there to be reckoned with), to a place inside the (larger) self which is about the relation between forms and acts as a process of form-[re]creation

Appendix K (Continued)

Hallmarks of Transitional Steps:

$x(y)$

ability to *perceive the possibility* of a new way of making meaning, but inability to perceive it in any other way than as bent to the purposes or structure of the old way of making meaning.

a stage y-ish element [is] present but [is] actually structured on behalf of an embeddedness in the perspective generated via x

x/y

ability to *actually construct meaning* in a way that is consistent with the new stage. While the new structure is clearly exercised/demonstrated, the older structure is equally present and predominates in her resolution.

predominance [of the earlier structure] is usually demonstrated by what seems like a kind of 'slipping back' into the earlier structure.

The ability to perceive the possibility of a new way of making meaning inside the self), but the inability to do so in any way other than bent to the purposes or structure of the old way of making meaning (e.g., making own decisions because the other's value is that she do so; or taking two perspectives inside so that the one perspective can get further counsel by the other) is the general definition of this first move beyond a fully equilibrated subject-object structure, and is designated $x(y)$ (p. 78)

y/x

Both structures are fully present and operating but resolution is based on the later form.

$y(x)$

Later structure is not free to exercise itself on behalf of whatever it might choose, rather some of its activity must be directed to the work of not being in the earlier stage. Some of its exercise is about maintaining itself, rather than about running itself.

Note: As I prepared these for my own use most of the language above is taken directly from the manual or lightly paraphrased and does not represent my content, just my consolidation into this reference sheet.

Appendix L

Global Leadership Profile Overview and Instructions

The Global Leadership Profile (GLP)

Action Inquiry Associates (AIA)

Overview & Instructions

About the Global Leadership Profile (GLP)

Each of us engages in life through a certain way of interacting and inquiring with others. According to adult development theory and much empirical leadership research over the past forty years (e.g. Kegan, 1982 and *In Over Our Heads*, 1994; Torbert, 1976, 1987, and *Action Inquiry*, 2004), different ones of us operate at different places along a continuum of leadership styles. We call the eight most characteristic styles: Opportunist, Diplomat, Expert, Achiever, Redefining, Transforming, Alchemical, and Ironic.

The GLP invites you to respond to 30 sentence stems so that a specially trained analyst can assess your leadership style—how you interpret and respond to problems, opportunities, and relationships—in the context of the above research and theory. The results are presented in the form of a short report that describes the features of your leadership style and offers suggestions for transforming that style in ways that incorporate the next style on the continuum.

The GLP report is used by organizational consultants, coaches and managers as a resource for helping leaders increase their effectiveness in: managing people, helping others transform toward greater efficacy, and co-leading team and organizational transformation toward greater agility. It is also used by researchers to gain insight into the leadership styles of the people they are working with.

Getting started, directions...

1. Please save the GLP Sentence Completion Form to a secure location on your computer. Open the form, complete empty fields in the table at the top of page 1, add your initials and date at the top of page 2, and save again.
2. In the body of the form you will find 30 incomplete sentences. Please finish all sentences and do so within a single sitting of an hour or less. Complete the sentences in any way you wish; there are no right or wrong answers. Use as much or as little space as you need for each sentence; the form will adjust itself accordingly.
3. Once complete, please save this document for yourself and send it to your sponsor as an attachment. Your sponsor is: [Karen Yeyinmen \(kcy759@mail.harvard.edu\)](mailto:kcy759@mail.harvard.edu).
4. We will preserve your anonymity as we analyze your form and will treat it in strictest confidence.

The Global Leadership Profile | Sentence Completion Form R | Action Inquiry Associates
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Appendix M
Agreement Form for Global Leadership Profile (GLP)

I agree to complete the *Global Leadership Profile (GLP)*, a leadership style indicator grounded in developmental theory, to have my responses reviewed by independent analysts with special training in this instrument, and to have the resulting report sent directly to the researcher, Karen Yeyinmen, as input to her research about how leaders make meaning of their experiences when working to promote adaptive change in higher education. I understand that completing the profile will take approximately 60 minutes and will involve my completing, in an electronic format, 30 sentences that shed light on how I interpret and respond to problems, opportunities, and relationships. I understand that completion of this profile is voluntary and I do not have to respond to any of the 30 items that I choose not to. I understand that you will not share my personal information with anyone and that any excerpts taken from this profile, or the resulting report, will disguise all names of persons and places so as to preserve my anonymity and privacy. I understand that while most people find this activity engaging and interesting, should I feel like discontinuing for any reason, I may do so at any time. I understand that I will be offered the opportunity to review the report produced by the independent analysts and that the timing of that review will be agreed upon by the researcher and me, and may not take place until after her research is complete.

Date

Signature of Participant

Thank you for your generosity in making time available for this activity. You can reach me using the following information if you have questions.

Karen C. Yeyinmen
18 Nathan Pratt Drive, Unit 309
Concord, MA 01742

Email: kcy759@mail.harvard.edu
Phone: 617-272-5915

Appendix N
Global Leadership Profile Sentence Completion Form

The Global Leadership Profile (GLP)

Action Inquiry Associates (AIA)

Sentence Completion Form

Please complete the following details.

OFFICE USE ONLY	
No.	

Name:	Harold Ikner
Organization & Position:	Sr. Administrator for a public college and university system in the US
First language:	
Date Completed:	
Sponsor:	Karen C. Yeyinmen (kcy759@mail.harvard.edu)

Please complete the following 30 sentences, which continue on the next pages.

1. When a child will not join in group activities...
2. Education...
3. When I am criticized...
4. Being with other people...
5. The thing I like about myself is...
6. Raising a family...
7. When people are helpless...

Appendix N (Continued)

Your initials:	H.I.	Date:		OFFICE USE ONLY: GLP No.	

8. A man's job...
9. What gets me into trouble is...
10. If my mother...
11. My time...
12. I just can't stand people who...
13. A girl has a right to...
14. When they avoided me...
15. A good leader...
16. I feel sorry...
17. A career is...
18. Rules are...
19. Sometimes I wish that...
20. When I get angry...
21. People who step out of line at work...
22. My father...

Appendix N (Continued)

Your initials:	H.I.	Date:		OFFICE USE ONLY: GLP No.	

23. My conscience bothers me if...

24. Power...

25. My main problem is...

26. At times others worry...

27. Crime and delinquency could be reduced if...

28. Dreams are...

29. My friends...

30. I am...

Thank you for completing the GLP. Your sponsor will be in touch with you about the results according to the process you have discussed. As part of our ongoing research, development, and training, Action Inquiry Associates would like to request your permission to use, with full anonymity, some of your responses. If you do not wish us to do so, please check the box below.

☐

Appendix O

Protocol for First In-Depth Interviews

Framing remarks *(For all participants. Use these remarks to orient the participant to the objectives of the interview and establish a safe and inviting space that supports authentic and relevant descriptions of experiences)*

- Today we'll talk about how you understand & approach your change leadership practice *as a whole*.
- I'll start us off with a broad opening question and jump in again when I feel the need, or when you invite me to do so, but for the most part I want to hear from you.
- I invite you to think of this as a generative space where you can honestly and openly reflect on different aspects of your change leadership practice, drawing on whatever internal or external, professional or personal, past or present facets of your experience seem most relevant to the questions, whether these are traditionally talked about in leadership circles or not, and where you can reflect on these things in the presence of someone who cares deeply about understanding *your* experience of leading change.
- Hopefully along the way one or more adaptive challenges we might consider for a deeper dive later on will emerge and we might even dedicate some time toward the end to begin getting a handle on those, but we'll see. Okay, are we ready?

Primary Questions *(For all participants. Use these broad, open-ended questions to invite leaders to describe, in their own language, sequence, and style, how they understand and approach their work leading adaptive change in their current role and environment.)*

- How do you make sense of your work as an adaptive leader?
- What changes are you trying to lead & why?
- How are you approaching that work, why so?
- What are you paying attention to along the way?

(Repeat key phrases; highlight multiple entry points)

Additional Questions: Leading Change Overall *(For each leader draw upon these and similar questions, as needed, to explore more deeply that participant's responses to primary questions above; raise organically to deepen insight into themes introduced by the participant, or to test relevance of themes that seem to be missing from that participant's account.)*

- What does a **thriving** [system] look like and why do you envision it that way? How do you see your change efforts moving the system toward this vision? What other visions of thriving have you encountered for this system & how do you hold these in relationship to your own?

Appendix O (Continued)

- As you work on leading change, what kinds of things *are you paying attention to*, either within yourself or in the environment, and how do you make sense of and use what you see there?
- How (else) does your *environment* shape how you understand & approach your work? (& vice v)
- Tell me about the *relationships* that are most relevant to your work (relationships that you encounter either at work or elsewhere). (What is your contribution to these dynamics?) How do these relationships shape your view of what's needed, what's happening, or what's possible?
- Talk about *love & power*. How do these dynamics show up for you in your efforts to lead change?
- What *value-tensions* are salient in your change leadership work? How have you made sense of or responded to these?
- When you think about the *wisdom* that you bring to bear on this difficult work, how would you describe it? How does your particular wisdom manifest in you, through your actions, or otherwise?
- What critical formative experiences in your *personal history* have led you to be where you are and to work in the ways that you do and toward the goals that you do.
- Can you describe some *key sources of learning* you've experienced in this role so far and how those have shaped you or your work? What learning has the *system enjoyed*? How do you know?

60 min along: have any focal challenges emerged for us? Summarize and discuss.

Supplemental Questions: Leading Specific Changes: (*For each leader, draw upon these and similar questions as needed, to decide together which lines of work are best suited to serving as focal challenges for this case*)

- Describe *this change effort in all of its dimensions*. Tell me (a little more) about how it came to be a priority and how you came to pursue the strategies that you are.
- Bring to mind *a specific day* in the past few days or weeks when you were working on [selected change] for a substantial portion of the day. Walk me through major *decision points or dilemmas* you faced that day (or in preparing for that day) and how you navigated these.

Appendix O (Continued)

- Thinking of a specific situation or *future event* that you are currently preparing for. What stands out to you as most critical to the success of that event. Why so and how are you approaching it? Why?
- What story or anecdote you can share with me that illustrates the *relationship* between the way you *understand your work in general* and your decisions about how to *approach this particular line of work* and situations you encounter in carrying it out.
- Tell me about the *different perspectives* on [this work] that you've encountered or identified and how these factor into the dynamics shaping the change process and your leadership approach.
- Given the landscape of issues that could benefit from your attention, what are the (key) factors that have contributed to shifting your focus to this particular issue *at this moment in time*?
- Would you say that your efforts to progress this issue now are *timely*? In what sense?
- How do you *assess progress* on this change? How will you know when you've hit a tipping point?
- How have different people or groups so far *responded to your leadership* of this change? How have you made sense of and acted on these responses?
- Are there perspectives on this issue that are not well voiced—what you might call *hidden perspectives*? What has been your response to these so far and to what effect?
- What remains *most ambiguous or uncertain* about this issue or your work on it? What has been your response to these aspects of your work?
- What factors critical to the success of this effort remain *outside your control* and how do you factor those into your work?

Thank you!

Reminders for Me

Study Objective

Examine how complex thinking manifests in the day-to-day leadership practices of three higher education change leaders.

Research Questions

1. How, if at all, do three developmentally mature leaders in higher education use complex thinking to understand their change leadership work?
2. How, if at all, do participants' uses of complex thinking shape their decisions and actions on the ground?
3. How do participants understand the intersection between complex thinking capacity and the kinds of leadership needed in higher education today?

Approach

Use interviews and observations to explore how, if at all, participating leaders employ complex thinking in the course of making sense of, and carrying out, their leadership work in a variety of settings and situations over a period of six to nine months.

Definition

Complex thinking: ways of understanding that dynamically incorporate and meaningfully integrate uniquely expansive and multifaceted arrays of experiential data. (My definition; DP, p. 5)

Theoretical Framework: “Sensitizing Concepts”

Principles of Grounded Theory (Charmaz, 2006, p.14-18)

- Listen closely to participant’s own words
- Listen for participants’ experiences, their framing, their priorities, their language
- Gather “rich data about the studied phenomenon” (in this case: experiences of leading adaptive change in higher education while holding complex understanding of the world)
- Gather data that will “fit your task and give you as a full a picture of the topic as possible within the parameters of this task”
- Be willing and prepared to “follow leads that emerge”
- Focus methods so that they “hold a promise of advancing your emerging ideas”
- Treat conceptual models & other entering assumptions as “sensitizing concepts” to “give you initial ideas to pursue [,] ...sensitize you to ask particular kinds of questions about your topic [, and serve as] ...points of departure for developing, rather than limiting, [your] ideas”

Adaptive Leadership (Heifetz, 1994)

- Definition of the community (how is it scoped; how inclusive and expansive is it)
- Work at the center – shared vision of what it means for this community to thrive
- Stakeholder groups & their perspectives on the work (what’s at stake)
- Hidden perspectives
- adaptive challenges
- levels of (dis)equilibrium
- ripeness of issues
- work and work avoidance taking place
- triggers for the communities or specific stakeholder groups/people
- DNA to bring forward/let go of

Complex Thinking in the Literature

Some recognizable forms of complex thinking (my DP, p.7)

- systems thinking (Rooke & Torbert, 2005);
- dialectical thinking (Basseches, 1984; Kegan, 1982);
- multi-paradigmatic awareness (Kegan, 1982; Berger, 2012);
- holistic understanding (Cook-Greuter, 1999; Torbert, 1989, 1994);
- metaphorical thinking (Torbert, 1989; Nicolaides, 2008); and
- multi-historical timeline awareness (Berger, 2012; Torbert, 2004).
- generative learning within ambiguity (Nicolaides, 2015)

Appendix O (Continued)

Some behaviors linked to complex thinking (*my DP, p. 8*)

- Greater use of prioritization and delegation with inquiry (Merron et al., 1987)
- Noticing more quickly when your actions are motivated by thinking that is less complex than is possible for you (McCallum, 2008)
- Seeking out more types of feedback from a wider variety of sources in the process of developing and implementing strategies (Torbert, 2004)
- Generating systemic change in organizations through learning that leads to shifts in fundamental goals and strategies (Rooke & Torbert, 2005)
- Embracing the learning potential of ambiguity (Nicolaidis, 2008)
- Celebrating the richness of conflicting perspectives and holding paradoxical truths (Basseches, 1984; Berger, 2012; Burbules & Rice, 1991; Kegan, 1994);
- Practicing mutual forms of power (Torbert, 1987, 1989, 1991)

Kegan's Subject-Object Theory Lens

Dialectical Rendering of Life Force: The life force is located in the interaction between the individual and its environment. The individual not (only) operates within or upon the environment (as if the two are distinct), but in fact constitutes a dynamic part of that environment, thereby shaping its very nature through her own understanding and actions, whether objectively observed as doing so or not (and vice versa).

Subject-Object Relationship: The way a person understands different aspect of the world is related to the way she constructs her “Self” in relation to the larger set of systems and dynamics comprising the world. The construction of the self and world is called the subject-object relationship.

Subject: Aspects of reality that a person experiences a part of the “Self” or “I”; aspects in which the person is embedded and that she unconsciously uses in the process of making sense of her experiences. A person cannot see, reflect on, take responsibility for, or control these aspects of reality. They include all of her taken-for-granted assumptions about the nature of her self, other people, the world, and interactions among these; these assumptions are unconsciously held as objective ‘truths’ that cannot be questioned or modified. They are the invisible tools she unknowingly uses to make sense of her experiences and envision possibilities (Kegan, 1982; Lahey et al., 1988). (Yeyinmen, 2013, p.19)

Object: Remaining aspects of reality experienced by that individual: the “not I”; it includes all that has been differentiated from the self. These aspects of reality are no longer experienced as pre-existing, objective, unchangeable truths. A person can see, reflect on, take responsibility for and control them. The object includes assumptions that person holds conditionally, consciously, and with knowledge that they may be or become untrue as time passes or conditions shift. It represents the tools that person consciously uses to make sense of experiences such as by questioning, testing, and molding them to bring greater coherence to her understanding or otherwise achieve her aims (Kegan, 1982, 1994; Lahey, et al., 1988) (Yeyinmen, 2013, p.19)

Appendix O (Continued)

Orders of Consciousness: The form of a person's subject-object relationships, also called the subject-object balance, develops over time and with the right conditions. This development occurs through a process of equilibration that alternates between assimilation and accommodation. Each accommodation involves:

- a) differentiation of Self from what was previously subject (subject becomes object);
- b) development of more complex organizing principle to define Self (more complex subject);
- c) more complete integration of newly shifted object experiences into larger set of experiences

Logics of Coherence:

Human beings, like all living organisms, continually seek greater coherence of their organization (of their Self). Each Order of Consciousness is associated with a different logic of coherence.

3rd Order: The Self coheres by meeting the perceived expectations of important others, where "important" is determined by one's life circumstances (e.g., family, religion, culture) and "expectation of others" are interpreted at or below the level of complexity afforded by here order of mind.

4th Order: The self coheres by behaving in ways that are consistent with her self-authored systems of meaning, including her ideology, relationship-regulating forms (e.g., multiple role consciousness), and construction of self (e.g., identity).

5th Order: The Self coheres by behaving in ways that acknowledge and honor the incompleteness of all worldviews—of all constructed systems of meaning such as ideologies or identities—including one's own.

Lines of Development:

Organizing activity is described as manifesting through three distinct domains of human experience—cognitive, interpersonal, and intrapersonal—referred to as "lines of development."

Line of Development	Organizing principle that is object only for 5th order individuals	Organizing principle that is available only for 5th order individuals
Cognitive (thinking processes)	ABSTRACT SYSTEMS: (Ideology) formulation, authorization, relations between abstractions	DIALECTICAL: (Trans-ideological/post-ideological) testing formulations, paradox, contradiction, oppositeness
Interpersonal (roles, relationships)	INSTITUTION: relationship-regulating forms, multiple-role consciousness	INTER-INSTITUTIONAL: Relationship between forms, interpenetration of self and other
Intrapersonal (affect, identity)	SELF-AUTHORSHIP: self-regulation, self-formation, identity; autonomy; individuation	SELF-TRANSFORMATION: interpenetration of selves, inter-individuation

Appendix O (Continued)

Torbert's Developmental Action Inquiry Lens (Torbert, 2004)

Territories of Experience:

- 4th: desired vision for the world (source of and focus of attention)
- 3rd: experience of the world (think/feel/believe/know)
- 2nd: actions in the world
- 1st: effects on the world

Note: see Torbert 1994 for how different action-logics are used attend to and operate on different territories and combinations of territories (maybe also try language like perceiving – doing – having – being)

Fields of Inquiry and Action:

- 1st-person (I/me) (intrapersonal/extra personal? what I do and affect)
- 2nd-person (we/us) (intersubjective/interpersonal)
- 3rd-person (they/them)

Action-Logics: An action-logic is “a unique logic, set of assumptions, and overall framework (Torbert, 1989) that governs a person’s or organization’s “ways of interpreting their surroundings and reacting when their power or safety is challenged” (Rooke & Torbert, 2005). It is the internal logic that dictates “how you interpret and respond to problems, opportunities, and relationships” (GLP sentence completion form).

Qualities of Learning:

- Single-loop: adjust behaviors & patterns of action (holding fixed aims, attitudes, assumptions)
- Double-loop: adjust aims, attitudes, and assumptions
- Triple-loop: adjust quality of attention shaping creation of aims, attitudes, and assumptions

Note: terms defining qualities of learning above are mine; trying to incorporate affective & simplify Tolbert's language; might also want to (re)read Nicolaides and McCallum articles on learning loops

How territories manifest in fields of experience

<i>Territory</i>	<i>1st - Attention</i>	<i>2nd - Speaking</i>	<i>3rd - Organization</i>
4 th : intentional attention	intention/attention	framing	visioning
3 rd : action-logic	thinking/feeling	advocating	strategizing
2 nd : sensed embodiment	behaving/sensing	illustrating	performing
1 st : outside world	effecting/perceiving	inquiring	impacting/assessing

Note: see Torbert 1994 for how different action-logics are used attend to and operate on different territories and combinations of territories

Goals of Action-Inquiry by field of experience

	<i>First person</i>	<i>Second person</i>	<i>Third person</i>
Goal	integrity	mutuality	sustainability

Appendix P
Email Documenting Focal Challenges for One Case (Sample: Harold)

From: Karen Yeyinmen
Subject: Selecting the Focal Challenge(s)
Date: March 6, 2015 at 3:09:47 PM EST

Dear XXX,

Thank you again for your candid and thoughtful reflections during the most recent interview. As promised, I'm writing with my thoughts on selecting the focal challenge(s) for your case. During the interview you stated: "the most challenging area of focus that I have... [is trying to] figure out how to leverage the four institutions together to be more than the sum of their parts." You referred to this challenge as the "macro of it all," which I understand to mean a sort of overarching aim that runs through your leadership practice. While this overarching aim could itself be treated as the focal challenge, given the timeline of this study, I think it makes sense to define a subset of this work to focus my observations.

You outlined a number of initiatives you will be leading in the coming months, which cut across different situations and settings that I can observe. These include: navigating the bi-annual budget appropriations process, engaging trustees and presidents in more robust strategic planning and mission development activities, enhancing perceived and actual system office capacity, developing system-level partnerships and/or centralized functions, expanding community college partnerships and dual admissions programs, and orchestrating an appropriate response to reports of misconduct by athletic coaches at multiple institutions within the system. Toward the end of our conversation we seemed to converge on two of these in particular:

- Navigating the bi-annual budget appropriations process
- Engaging the Board in more robust system-wide and system-level strategic planning and mission development activities

You mentioned that your leadership in these areas is intertwined in interesting ways and, particularly with respect to the strategic planning and mission development process, may benefit from the kind of reflective attention invited by this study. You also pointed out that your leadership in these areas involves addressing a number of more specific adaptive challenges. For example, navigating the state budget appropriations process involves both the internal challenge of "get[ting] our presidents and trustees on board with whatever strategy we're going to use and statements that we're going to put out there" (i.e. developing a compelling, shared vision of funding priorities), and the external challenge of "get[ting] business and the legislature on board for supporting us and supporting [this strategy]" (i.e., securing external support/funding for these shared priorities). Engaging the leadership in more robust strategic planning and mission development activities will involve tackling such challenges as: "help[ing] the Board figure out how to do more system wide strategic planning"; "getting to that deeper conversation at a level of honesty that...will result in some changes"; "developing a comprehensive system-wide mission"; "creating a larger strategic plan for the state...and the system," and creatively addressing the "general resistance to [mission development activities]."

Appendix P (Continued)

We may further refine this lens as we move forward. For example, we may choose to focus on one or more of the more specific challenges you face within the broad bulleted areas; we may find it makes more sense to zoom back out to the larger aim mentioned in the opening paragraph; or some new area of focus may emerge. However, I propose we start by defining the focus as generally articulated above and allow emergent findings to inform how it evolves. Please let me know if the way I have defined and articulated the bullets is a good reflection of the way you understand these aspects of your leadership and if these areas remain interesting to you as focal points for my observations of your work. Once we have agreed on the best way to define this lens, I will follow up with a tentative schedule of observations, which I'm drafting based on conversations with you and XXX.

I look forward to your reply.

Regards,

Karen

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Appendix Q
Protocol for Second In-Depth Interviews (Sample: Janine)

Framing (5 min)

- Be **deliberate about how we frame** and enter into this conversation, since there are so many different ways we could talk about your work.
- Specifically, be present to the question of **what it looks like when you bring your most complex & expansive thinking to your leadership practice** – the good, the bad, & the ugly.
- In this interview I want to **change out the wide-angle** lens we had in place last time and **replace it with a zoom lens**, diving a little deeper into the focus areas we've selected.
 - Share Handout: **Lines of Work** to Focus Study
 - Do these (still) **make sense?** Discuss changes/ scope/ draw illustrations here.
 - I invite you to **think expansively** about these focal areas, including how your thinking has shifted over time, connections to other work you're doing, etc.
 - Lines of Work vs. Adaptive challenges
- If you think it makes sense we can spend the first 10 minutes or so in a **'briefing' mode**, where you update me on any major developments in the past few weeks to create a shared frame with respect to these focal issues
- Also I put together a **list of observations** I conducted so we can identify any major events related to the focus areas that I didn't observe but we might want to talk about.
- Then, we can **shift into a more reflective** mode where I'm kind of listening in on your out-loud reflections about your work in these different areas.

How does that sound? [TURN ON RECORDERS]

Part 1: Orienting to the Issues (Mapping out the Dance Floor) (10 min)

- Share **handouts**:
 - Lines of Work to Focus Study (keep visible on table)
 - a) Strategic planning (as integrated process not separate initiative) [propose continuing]
 - b) Socially responsible investing [propose continuing]
 - c) ~~College-hospital partnership~~ (community relations) [propose dropping]
 - d) Embracing & embodying diversity (gender/sexual identity, race, culture) [propose add]
 - Summary of Observations (good sampling? major events missing? key updates?)

Appendix Q (Continued)

- As we move into our conversation, also keep in mind the **spaces between** these observed events and the ways that some of the more invisible aspects of your work might be relevant.

Okay? Let's dive in.

Part 2: Exploring your experience of leading adaptive change in focal areas (30 min)

- How do you make sense of **how these lines of work have unfolded** over the past 6 mo. or so?
- What **stands out for you** about either the way you or others **approach your work** in these areas or the relationship between your understanding of the work and your actions on the ground?
- Bring us **back in time** to a few of the moments when you saw **your own efforts** or achievements **directly or indirectly reflected in what was happening** – for better or worse. Take me out **'on the dance floor'** with you in those moments. What was happening? How did you make sense of it at the time? How do you make sense of it now?
- What are you **ultimately trying to achieve through your work in these areas?** (if asks: either separately or in combination) Why?
- What **have you found most challenging about** working on these areas?
- What are some of the important **"moves" that you made (internally (self) or externally (world))** and how have you and others made sense of those?
- What **connections do you see** between these two lines of work or between these & other work you have been doing these past months? How have these shaped your practice?
- Have you noticed any **shifts in your understanding** of what has happening, what was needed, or what would be the best way forward during this time? What triggered those changes?
- What has **remained constant** for you during this time. For example, are there certain key assumptions or intentions you hold more tightly? Why do you think that is?
- What has been **most satisfying** about the work you've done and the progress you've seen and what has been **most surprising** to you about the way these work currents have evolved?
- Tell me about the different **tensions** you've encountered in your efforts to change the system for the better in relation to these issues. How have you made sense of and navigated those?
- Tell me about some of the **less linear aspects** of your work in these areas. Shaping **indirectly**.
- How do you understand and use **different kinds of power** in your work? Example?

---if time, otherwise skip to part 3

- In what ways, if any, have you **felt constrained or thwarted** in your efforts to move the system in the direction of thriving with respect to these issues (e.g., **in your own way**, habits, triggers)?
- Were there moments when you felt you were **working at the edge of your comfort zone or outside of it**, yet still contributing, perhaps in ways that were unexpected and new for you?
- Are there ways in which your thinking or action is moving you and the system exactly in the direction that is needed (and there is some evidence of this) but **others don't see it** either because they can't, they don't want to, or they haven't tried. How do you process that?

Appendix Q (Continued)

Part 3: Exploring aspects of events I observed or themes emerging in data (40 min)

- A lot of your leadership work seems to involve collaboration, delegation, brainstorming, dialogue and other types of **interactions with others** inside and outside the college.
 - Thinking about the kinds of interactions that have been most fruitful for supporting adaptive shifts, what stands out to you about the **nature of those interactions** and **your role in or experience of** them?
 - Would you describe the kinds of leadership needed to move [COLLEGE] forward in these areas as a type of **distributed or networked leadership** or do you think about it differently? How so?
- You talked at one point about the importance of helping the college continue to **embrace its [COLLEGE]-ness** but to do so in a way that is **less isolated**. You wanted to help shift the focus of people's "preciousness...**from the minutia to the larger goals**". You talked about this as a certain type of **pragmatism**. For example, bringing in best practices to admissions and finance departments. Also helping students shift focus from diversifying fossil fuels to asking more broadly how can we align our operations with our values. You said this was something you heard a lot from other people and that you've also come to that conclusion yourself.
 - How has your understanding of what this means developed over time and what aspects of your leadership practice have contributed to supporting this particular kind of shift?
 - Share images: Garden door opens in – Garden door opens out. Does it resonate?
- You talk in a number of places about the value of doing what is needed to understand the **essence of a thing**, and no more. **See picture of auto**. You talked about the efficiency value and the self-preservation value in a political setting and you talked about using this principle to guide which and how many questions you ask. Has this principle played a part in the way that you have approached the three issues we are looking at more deeply today? How so?
- I experience your leadership as having a **dynamic, fluid** quality. You pay attention to the needs and historical arc of multiple intersecting communities (21st century society, higher education, [TOWN], [COLLEGE], factions within the [COLLEGE]); you find connections among these communities and among different issues you are working on, you work on multiple intersecting timelines, and develop solutions that address multiple-intersecting goals. And there is a sense that you are continually attending to subtle shifts in this landscape to identify important moments or openings that invite or inspire certain types of action. Does this description resonate with you? How so? **See painting**. Are there aspects of your leadership practice that are missing from this depiction or run counter to it? How so?

Appendix Q (Continued)

- I've been thinking about different **metaphors** that might be useful for capturing a holistic sense of your leadership style. One that seems to be sticking for me is the idea of **organic gardener**. Especially: seeks active tension between order and chaos (Michael Pollen, *Botony of Desire*), deep knowledge of the land and the crops, leverages biodiversity to achieve synergies among naturally compatible eco-systems, attends to seasonal differences and issues of timing (when to plant, ripen, reap). Does this metaphor ring true? Never perfect, but anything obviously off base? Other metaphors? What doesn't seem to work about this comparison?
- At one point you talked about how **you report to no one and you report to everyone**. In what ways has your understanding of this paradox informed your work on these particular issues?
- There was a strong theme of **reconfiguration** in your organizational changes – why that word, what does it mean? Many of your committee changes seem to involve moves toward a more inclusive membership and cross-faction representation. Tell me more about that.
- The **figure-ground model from gestalt psychology** seems relevant for capturing some aspect of the way you attend to figures not in isolation, but in reference to the visible and invisible aspects of the larger ground from which they emerged and toward which they might contribute. Does this resonate in any way with your sense of how you approach your work?

Reference points for the focal challenges as drawn from interview & observation data

Additional entry points for deeper exploration during this interview, only as needed and relevant

(Integrated) Strategic Planning Process

Accreditor's Report: 5-Year Review
Strategic planning process with input from multiple constituents
Short-, mid-, and long-term goals
Positioning in higher ed market (with [external marketing firm])
Website redesign – ongoing project
Functional best practices (e.g., admissions, accounting)
Culture/operations that embrace and embody diversity (is this in the plan?)
Org structure/ reconfiguration (admin, faculty, Board, committees)
Commons renovation (and other physical structures)

Responsible investing (fiscal duty, value alignment, market timing)

Engage with protesting students
Give voice at the table
Connects to timing of Inv. Mgr. review
Include SRI clause in RFP
Invite student rep to Inv. Mgr. interviews
Consider SRI in larger context of “responsible” investing
Giving work to the people

Appendix Q (Continued)

Embracing and Embodying diversity

Leveraging [Foundation] Grant
“Deliberately backed into faculty conversations”
International students as entry point/broad definition of diversity
Faculty training/retreat/ [external diversity consultants]
Mirroring of rural homogeneity
Admissions process/Faculty searches
Campus culture/ retention
Diversity staff position (placeholder/not compartmentalized)
Integrated approach and specific entry points/forward thrusts
Process not a program

Images to share during interview *(as time permits)*

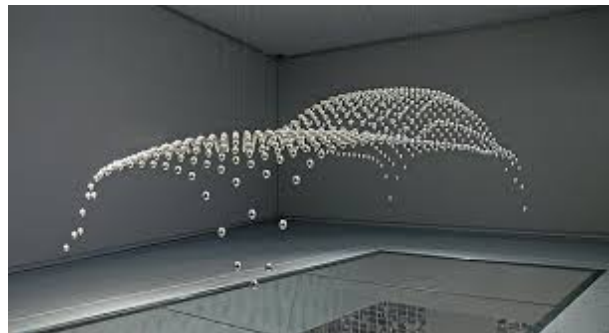
Garden Door opens in vs. opens out



Organic Gardening as Integrative Metaphor



Discovering/Working from the Essence



Appendix R
Protocol for Third In-Depth Interviews (Sample: Harold)

Framing

- Zooming out to look at the kinds of roles that complex leaders are, or might be able to play when they bring complex understanding of their work, and their environment, to their practice.
- We've spent a good amount of time together. Thank you. I know I've learned a lot about what it looks like for a leader to think complexly & to apply those ways of thinking to day-to-day work.

Primary Question

- Reflecting back all the conversations, and thinking about what it means to you to bring complex understanding to your work, and your life more generally, talk to me a little bit about how you understand the intersection between the capacity for complex thinking and the kinds of leadership needed in higher education today?

Additional Questions

- If we define leadership not as a particular role, office or set of people but as the activity of influencing positive change, tell me, what kinds of leadership do you think are needed in higher education today to move the sector and the communities it serves toward greater flourishing.
 - Can you give an example from your own practice to illustrate? Or from the practice of a leader that you admire?
 - Are there key principles you think should guide the thoughts & actions of these leaders? Why those?
- How do the norms and challenges of this particular era in history — the 21st century — factor into that? Given what is happening and what is needed to move this society forward given where it currently stands, what role can or should higher education play in that, and what is the role of complex-thinking leaders in that process? (Perhaps start with how you see your role then speak more generally, or vice versa.)
- What kinds of demands does leading in these ways place on the people who carry out this work?
- You've talked a lot about different challenges that you face in doing your work, including the fiefdom mentality of presidents, entrenched attitudes about the work and value of the central office, high turnover and fragmentation on the Board, among others. Looking at the flip side of that, what **aspects of your work context do you find most valuable** for supporting and facilitating your work? What makes it more possible to carry out the kind of work you do?
 - Are those unique to this context?
 - What other changes would make your work more fruitful or satisfying?

Appendix R (Continued)

- **Share Haiku** (Harold's Themes/Cross Case Themes). Explain: "I decided to incorporate haiku in my process for making sense of emergent themes because it seems to embody a pattern I noticed in the way you and others work, which involves identifying what's most essential for promoting the wellbeing of the larger community and communicating in ways that are simple, clear and otherwise support collaborative development of a shared vision for the future."
 - Do these resonate? How so? How not? Comments on the haiku form?
- **Share metaphor** (acupressure/master healer). Where does this fit? Fall short?
- What's **not working for you right now** about the way you are approaching your work? If you were to imagine yourself as your own executive coach, **what advice would you give yourself?**
- How does your life outside of your professional work factor into your work as a higher education leader? Do you think about these as distinctly separate aspects of your experience or as connected in some fundamental way? How so?

Closing

- Appreciation of the scope and scale of the challenges you are working on and gratitude for your willingness to give time and attention to this study and openness in looking at how you understand and approach that work.
- Review of next steps
 - I'll be sending you brief written summary of emergent findings for your feedback
 - I'll be sending draft report sections based on your case for your review

Reminders for Me

From Harold's interviews

"It's a dynamic I really worry about for the state, that we've got what is quickly becoming a more retirement-based state, which doesn't inherently want to invest in education and in other kinds of infrastructure and things that the economy actually needs. This state has held fast for so long around income and sales taxes, that there's sort of the third rail" (First IDI)

"I'm starting by looking at what do I think I need to do while I'm in this role given what I know about higher ed, given what I know about the system, to really help prepare it better for the future and have it more, sustainable and more focused on, better serving the needs that it was established to do. So, as I'm looking out at that, *I have a lot of concerns about where much of higher ed is going*, and whether public or private that there are so many institutions that are much better insulated from both the economic and political and other aspects of the environment, the market aspects of it that are going on. But a system like this, even though it's public, it gets so little funding from the state that it has to be more responsive and act more like a private institution in many ways than most state systems. (Second IDI)

My definition of complex thinking

Ways of understanding that dynamically incorporate and meaningfully integrate an expansive and multifaceted array of experiential data.

Original Haiku

August 2015 (Draft)

Shared with Harold during 3rd In-Depth interview

Your case

Seeking synergies,
I build capacities and
forge new partnerships.

*

True transparency
moves us toward ultimate goals
while keeping things real.

*

Incremental change,
though needed, does not suffice.
Find the pressure points.

Across cases

Complex pragmatism:
listening our way forward
toward ultimate aims.

*

Dialectic acts
re-define and re-combine
constituting parts—
for the better.

*

Transforming power
is two-way collaboration
on differing terms.

Appendix S
Protocol for Field Observations

Situation/Activity/Event: Location: Date: Time of Day:

Descriptive Notes	Reflective Notes
“portraits of the participants, a reconstruction of dialogue, a description of the physical setting, accounts of particular interactions or interventions. “(Creswell, 2009, p.181)	“personal thoughts, such as ‘speculation, feelings, problems, ideas, hunches, impressions, and prejudices’ Bogdan & Biklen, 1992.p.121)” (Creswell, 2009, p.182)
Note for example: • Discussion of paradoxes, tensions, or polarities • Articulation of inner thoughts and states (e.g., making visible own assumptions or reactions) • Sources of authority invoked (policy, mission) • Dynamics preceding interventions, e.g., fight • Use of metaphor to communicate ideas • Use of both/and language; either/or language • Acts of inclusion/exclusion (e.g., welcoming) • Speech that takes the form of framing, advocating, illustrating, or inquiring • Referencing of specific values or value systems, paradigms, traditions, roles, identities • Referencing of others’ ideas or contributions in the process of articulating own ideas • References to learning or shifting viewpoints	Note my impressions and interpretations of speech, actions, and events in the meeting that seem worthy of deeper exploration in second in-depth interview. For example, note my impressions of events and behaviors that: • Seem to reflect or flow from specific forms of complex thinking (e.g., dialectical thinking) • Appear to shift dynamics in the room or the course of the observed event • Appear to forward or thwart some aspect of the leader’s agenda (based on first interview) • Elicit a particularly strong, weak or unexpected response from leader or others. • Seem to reflect a pattern (was it intentional?) • Seem out of place, or inappropriate • Seem particularly effective or ineffective for progressing the situation
Notes:	Notes:

Appendix T

Emic Code List for Harold

H_a CEO within the system	H_FEEDBACK	H_QUOTES_Notable
H_academic exercise	H_figure out	H_really feel it
H_ALIGNMENT/"certain alignments"	H_FRAME/REFRAME/REF.POINTS	H_redirect
H_ANTICIPATE/PREPARE/GET READY	H_good fit	H_RELATIONSHIPS
H_ASSUMPTIONS/BOUNDARIES/DEFINITIONS_hold, shift, shape	H_higher ground	H_REMINDERS/REMEMBERING
H_ATTENTION_noticing, observing, present	H_HOLD STEADY	H_RESULTS/IMPACT/VALUE_
H_balancing_trying or not trying	H_I'll throw out different ideas	H_rigging the game/PLAYING GAMES
H_BOTH-AND	H_IDEAS_having, taking up, evolving	H_RIPENING ISSUES_notice, devleo
H_BUILDING SUPPORT/ getting others "ON BOARD"	H_ILLUSTRATIONS/STORIES_using, seeking	H_RISK, UNCERTAINTY, AMBIGUITY_noting, working through
H_CAPABILITY BUILDING/MENTORING	H_INCLUSIVE or SELECTIVE	H_ROLES/MULTI-ROLES/ROLE CLARIFICATION_having, using
H_CHALLENGES/CONCERNS/DISAPPOINTMENTS	H_integrative thinking	H_SCENARIOS_imainine,consider, share
H_CHANGES OVER TIME_notice, adapt	H_intertwined	H_SEEN & UNSEEN_what is, should be
H_CLARITY/CLARIFY/KEEP FUZZY	H_LARGER	H_SELF-KNOWLEDGE/SELF-IDENTITY
H_COMMUNICATING/ARTICULATING	PURPOSES/PICTURE_attending to, illuminating	H_settle
H_compromises	H_LAYERS of TRUTH_percieved, actual	H_SHARED VISION, GOALS, U-STANDING_promoting, missing
H_CONDITIONAL LANGUAGE	H_LEADERSHIP ARTIFACTS/ PUTTING THINGS IN PLACE	H_SHIFTING LANDSCAPE_notice, adapt
H_CONDITIONS_for success, for emergence	H_LEARNING/REFLECTION	H_SIMPLIFYING issues, communications
H_CONNECTING	H_less defined/newer/unclear	H_SITUATIONAL_truths, knowing, acting
H_CONTEXT	H_LEVERAGE_finding, using	H_SITUATIONS & ARENAS_defining, working within & across
H_CONTEXT-HIGHER ED_ustanding, shaping	H_LONG TIME HORIZON/ LONG TERM STRATEGY	H_STRATEGIC_plans, moves, thinking
H_CONTEXT-INSTITUTIONAL_college system	H_LOSSES	H_SUCCESS/SATISFACTION/DISSATISFACTION
H_CONTEXT-STATE POLITICS/ ECONOMY	H_mechanisms_of Influence	H_SUPPORT/SCAFFOLD/ENABLER
H_CONVERSATION/TALKING/DIALOG	H_METAPHOR	H_SUSTAINABLE business model_seeking
H_DEGREES of XNESS	H_MIRRORING	H_SYMBOLIC MOVES
H_deliberate	H_move forward	H_SYNERGIES/"more than the sum of their parts"
H_DEMANDS of the job	H_MULTIPLE LEVELS_layers, entry points, goals	H_SYSTEMS THINKING/UNINTENDED CONSEQUENCES
H_DIALECTICAL THINKING	H_NETWORKED LEADERSHIP	H_TENSION-CONCRETE vs ABSTRACT
H_DIFFERENT PERSPECTIVES/WAYS OF THINKING	H_OPPORTUNITIES_seeing, using, creating, missing, amplifying	H_TENSION-COSTS v. MISSION/QUALITY
H_DIRECTION_discovering, shaping	H_ORG CULTURE_seeing, shaping, shifting	H_TENSION-KNOWING v. ADAPTING
H_DISTRIBUTED	H_OVERALL/ALL THINGS CONSIDERED	H_TENSION-PART vs WHOLE
LEADERSHIP_shaping, enabling, using	H_PARADOX/IRONY_relationship to, handling of, noticing	H_THINKING POLITICALLY
H_DOING/NOT DOING	H_PARTICULAR	H_TIME,TIMING,TIMLINESS
H_drill down	CIRCUMSTANCES/EXCEPTIONS	H_tipping point/ CRITICAL MASS
H_echo chamber	H_PARTNERING/PARTNERSHIPS	H_TRADEOFFS_acknowledge, weigh
H_EDUCATE_trustees, legislators, people, policymakers	H_PARTS of WHOLE/ONE of MANY	H_TRANSPARENCY_want, use, choose
H_EMBEDDED & INTERSECTING challenges_making sense of	H_PAST AFFECTS PRESENT_seeing, shifting	H_true online experience
H_ENERGIZE/AMPLIFY/ANIMATE	H_pathway	H_true transparency
H_ENGAGED/IMMERSED/ABSORBED	H_PERSONAL GOALS & HISTORY	H_two-way collaboration
H_engrained/ENTRENCHED	H_POWER/ Perceptions of Power/ Power Plays	H_understanding the personality
H_EVIDENCE OF	H_pragmatic	H_UPSTREAM/AGAINST/RESISTANCE_working
REALITY/JUSTIFY_seek, share (or not)	H_pressure	H_WIN-LOSE/WIN-WIN/FIGHT METAPHOR
H_EXPECTATIONS_settle, meet, clarify	H_PRIORITIES_shape, define, advance	H_YARDSTICKS_evaluative criteria & systems
H_EXPERIMENTS/Trying things out	H_PROCESS_focus on, seeing as, unfolding of	
H_FACTONAL	H QUESTIONS_ask, prompt, answer	
PERSPECTIVES_knowing, using, adapting to		

Appendix U

Emic Code List for Janine

J_ALIGNMENT/CONVERGENCE/ CONFLUENCE	J_growing from the same root	J_PEOPLE-ORGS-SOCIETY (Placeholder)
J_ASSUMPTIONS/BELIEFS	J_GROWTH ANALOGY/ROOT/SUBSTRATE	J_PERSONAL GOALS & HISTORY
J_ATTENTION_directing own, noticing	J_hardy perennial conversation	J_planning backwards.
J_BALANCE	J_highest and best use?	J_POSITIONING
J_big picture	J_HOLDING ENVIRONMENT	J_POWER/CONTROL_perceptions, power plays
J_BOTH-AND/Paradox	J_HUMAN/HUMANITY_perspective, role in society	J_PRAGMATIC
J_bring to the larger discussion	J_IDEAS_taking up, evolving	J_PRIORITIES_choosing, shaping
J_CAPACITY BUILDING_people, org	J_ILLUSTRATIONS_using, seeking	J_PROCESS
J_CHALLENGES	J_immediacy	J_QUESTIONS
J_CHANGES OVER TIME_seeing, anticipating, seeking	J_inertia	J_QUOTES_Notable
J_CHOICES/DECISIONS/OPTIONS	J_intellectual curiosity	J_real and meaningful/matters
J_CLARITY/CLARIFYING	J_interconnected	J_really listening
J_closed system/OPEN SYSTEM	J_INTERPERSONAL/RELATIONSHIPS	J_reanimate
J_COMMUNICATE/ARTICULATE/ LANGUAGE	J_it's always about discovery	J_recalibrated
J_CONDITIONAL LANGUAGE	J_larger arc	J_REFLECTION IN (MIDST OF) ACTION
J_CONDITIONAL/RELATIVE_truths, knowing	J_LARGER PURPOSE(S)/BIGGER PICTURE	J_REMINDERS/FORGETTING
J_CONDITIONS_for success, (for emergence?)	J_LARGER TRUTH/WHAT'S MISSING	J_resonates/compelling
J_CONNECT/	J_LEADERSHIP ARTIFACTS_Putting things in place	J_RESULTS/IMPACT/VALUE
INTEGRATE/RELATE/CONVERGE	J_LEARNING/REFLECTION	J_RIPENESS OF ISSUES_noticing, advancing
J_CONTEXT	J_levers/pressure points	J_RISK/UNCERTAINTY/AMBIGUITY
J_CONTEXT-HIGHER ED	J_LINE_ADMISSIONS REVAMP	J_ROLES_MULTI-ROLES/HATS
J_CONTEXT-INSTITUTIONAL	J_LINE_ALUMNI ENGAGEMENT	J_SCENARIOS_imagined, considered, discussed
J_CONTEXT-NATIONAL	J_LINE_DIVERSITY-EMBODYING	J_SEEN/UNSEEN_what is, what should be
J_CONTEXT-TOWN/LOCAL COMMUNITY	J_LINE_GENERAL PHILOSOPHY	J_SELF-KNOWLEDGE
J_CONVERSATION/LISTENING/TALKING	J_LINE_HOSPITAL PARTNERSHIP/COMMUNITY	J_SENSING/INTUITION/GUT
J_COURAGE	J_LINE_STRATEGIC PLANNING/DEVELOPMENT	J_SHADOW
J_cultivating	J_LINE_STU-HEALTH INCIDENT	J_SHARED VISION, GOALS, U'STANDING_seeing, shaping, using
J_DECISIVENESS	J_LINE_STU-SRI INVESTMENTS	J_shifting/SHAPING
J_DEGREES of XNESS_true, really, fully, actually	J_LINE_STU-WHOLE STUDENT	J_SITUATION(AL)_truths, knowing, acting
J_DELIBERATE IRONY	J_LONG TIME HORIZON/ LONG TERM STRATEGY	J_SITUATIONS & ARENAS_defining, distinguishing
J_DIALECTICAL THINKING	J_meet them where they are	J_STUDENTS_want for, working with, supporting
J_DIRECTION/PATH/ARC/TRAJECTORY	J_METAPHOR/ANALOGY	J_substrate/FOUNDATION
J_DISCOURSE	J_MIRRORING	J_SUCCESS/ACCOMPLISHMENT/ SATISFACTION
J_DISTRIBUTED LEADERSHIP_participating, shaping, enabling	J_moments_in time, org history	J_SUPPORTS/SCAFFOLDS/ENABLERS
J_DOING/NOT DOING	J_move past it	J_TENSION-CHAOS v. ORDER
J_dovetailed	J_MOVEMENT	J_TENSION-CONCRETE v. ABSTRACT
J_EGO	J_MULTI-DIMENSIONS_seeing, working across, bridging	J_TENSION-KNOWING v. ADAPTING
J_elevate good things	J_MULTIPLE ENTRY POINTS_action streams, approaches	J_TENSIONS
J_embedded	J_nebulous	J_they needed more tools
J_embrace it without crushing it	J_nest into that	J_TIME/TIMING/TIMELINESS
J_essence of the thing/ SPIRIT of it	J_NON-LINEAR_thinking, process, effects	J_traditional metric
J_EVIDENCE/EXTERNAL REFERENCE PTS	J_NOT THAT/ CONTRADICTION PRINCIPLE	J_undercurrent
J_experience	J_nothing is irrevocable	J_VISION(S) OF THRIVING
J_FACTIONAL PERSPECTIVES_noticing,...	J_OPPORTUNITIES_seeing, using, creating, missed	J_WAYS OF UNDERSTANDING/INTERPRETATIONS
J_false tension	J_organic/EMERGENCE	J_where the space is
J_FEEDBACK_seeking, receiving, making sense of	J_PART(S) of the WHOLE	J_WIN-LOSE_thinking, metaphor
J_form/SHAPE	J_PAST AFFECTS PRESENT_personal, institutional, societal	J_ZOOM IN/ZOOM OUT_scale, time
J_found my stride as a leader		
J_FRAME/REFRAME		

Appendix V

Emic Code List for Sherry

Name		
S_ACKNOWLEDGE/THANK/CELEBRATE	S_EXPERIMENT/PILOT	S_PRIORITIES_shape, define, advance
S_ADAPTIVE CAPACITIES	S_FACTIONAL PERSPECTIVES	S_PROCESS_seeing as, focus on, unfolding of
S_ALIGNMENT/FIT	S_figure out	S_PROTECT/DEFEND
S_ALLIES & CONFIDANTS	S_FINANCIAL	S_QUESTIONS/WONDERING
S_ASSUMPTIONS/BELIEFS_define, hold, shift, shape	CONSIDERATIONS/COST/EXPENSE/INVESTMENT	S_QUOTES_notable
S_ATTENTION_directing own, noticing	S_flow back	S_RACIAL IDENTITY/ GENDER IDENTITY
S_BEST PRACTICES	S_HOLDING ENVIRONMENT	S_REBUILDING/HEALING
S_BOTH-AND	S_HUMAN/HUMANITY	S_RELATIONSHIPS/INTERPERSONAL/TEAM
S_BOUNDARIES/STANDARDS_defining, shifting, testing, holding	S_ILLUSTRATIONS/STORIES	S_RESONANCE/MEANING_finding, wanting, seeing
S_BREATHING/HAVING SPACE	S_IN THE MIDDLE	S_RESULTS/IMPACT/VALUE
S_BUILDING SUPPORT/GETTING OTHERS ON BOARD	S_INCLUSIVE/SELECTIVE	S_RIPENESS OF ISSUES
S_CAPACITIES/CAPABILITIES	S_INTEGRITY/HIGH-ROAD	S_RISK/UNCERTAINTY/ AMBIGUITY
S_CARE/CARING	S_INTERDISCIPLINARY	S_ROLES/HATS/RESPONSIBILITIES
S_CAUTIOUS	S_LARGER PURPOSE(S)	S_SCENARIOS/THOUGHT EXPERIMENTS
S_CHALLENGES/CONCERNS/DISAPPOINTMENTS	S_LARGER TRUTH/MISSING	S_SEEN & UNSEEN_unveil, find out, confidential
S_CHANGES OVER TIME	S_LAYERS OF TRUTH_perceived, actual, shape, manage, gaps	S_SELF-KNOWLEDGE/SELF-IDENTITY
S_channeling	S_LEADERSHIP ARTIFACTS_putting things in place	S_SENSEMAKING/INTERPRETING/ GUESSING
S_CHOICES/DECISIONS/OPTIONS	S_LEARNING/REFLECTION	S_SEPARATE/COMPARTMENTALIZE/DRAW BOUNDARIES
S_CLARITY/CLARIFY	S_LET GO/STEP BACK	S_SHARED VISION, GOALS, U'STANDING
S_COLLABORATING/PARTNERING	S_LONG TIME HORIZON/ LONG TERM STRATEGY	S_SHIFTING LANDSCAPE
S_COMMUNICATE/ARTICULATE	S_LOOKING FORWARD/LISTENING FORWARD	S_SHIFTING/SHAPING/DEFINING
S_CONDITIONAL LANGUAGE	S_MANAGING PERCEPTIONS	S_SITUATIONAL TRUTH(S)
S_CONNECT/CONVENE/GATHER/INTEGRATE_ideas, people, initiatives	S_MENTORING	S_SITUATIONS/SPACES/ARENAS
S_CONTEXT-INSTITUTIONAL	S_MESSAGING & COUNTER/NARRATIVE/DISCOURSE	S_SONG BENEATH THE WORDS
S_CONVERSATION/TALKING/DIALOGUE/LISTENING	S_METAPHOR	S_SUCCESS/(DIS)SATISFACTION/ACCOMPLISHMENT
S_DEGREES of XNESS	S_MODELING/EMBODYING	S_SUPPORT/SCAFFOLD/ENABLER
S_DELIBERATE/CONSCIOUS/INTENTIONAL	S_MOVE FORWARD/ADVANCE	S_SYMBOLIC MEANING/MOVES
S_DEMONSTRATE/ATTRACT	S_MOVE THROUGH/"come through"/NAVIGATE	S_TENSION-COST vs QUALITY
S_DIALECTICAL SCHEMA	S_MULTIPLE	S_TENSION-KNOWING vs ADAPTING
S_DIFFERENT	LEVELS/LAYERS/GOALS	S_TENSION-PART vs WHOLE
PERSPECTIVES/WAYS OF THINKING	S_MUTUALITY	S_TENSION_value tension
S_DISCERNMENT	S_NON-LINEAR	S_TERRITORIES/INTEGRATIVE AWARENESS
S_DISTRIBUTED	S_OPPORTUNITY	S_therapeutic care work
LEADERSHIP_practicing, enabling	S_ORG CULTURE_seeing, sensing, shaping	S_THINKING POLITICALLY
S_DOING/NOT DOING	S_PARADOX	S_TIME/TIMING/TIMELINESS
S_EDUCATE THEM	S_PARTICULAR	S_TRANSPARENT/PROPRIETARY
S_EGO	CIRCUMSTANCES/EXCEPTIONS	S_TRUST/KEEP CONFIDENTIAL
S_EMERGENCE	S_PARTNERING/PARTNERSHIP	S_UNDERSTANDING THE PERSONALITY
S_ENGAGEMENT/WELLBEING_	S_PARTS of WHOLE/ ONE of MANY	S_WIN-LOSE/WIN-WIN
S_ENGRAINED/ENTRENCHED/LEGACY	S_PAST AFFECTS PRESENT	
S_ESSENCE/CORE	S_PERSON-ORG-SOCIETY	
S_EVIDENCE/EXTERNAL DATA/FEEDBACK	S_PERSONAL GOALS & HISTORY	
S_EXPECTATIONS/SURPRISES	S_POSITIONING	
	S_POWER/CONTROL/AUTHORITY_having, using, lack of	
	S_PRAGMATIC	
	S_PREPARE/BE PREPARED	

Appendix W
IRB Notification of Study Approval

From: irb@harvard.edu
Subject: Study IRB13-1782 is approved
Date: December 6, 2013 9:49:58 AM EST
To: kcy759@mail.harvard.edu
Reply-To: irb@harvard.edu



HARVARD

Human Research Protection Program

Notification of Approval

To: Karen Yeyinmen
Link: [Complex Sensemaking and Adaptive Leadership Practice in Higher Education](#)
Investigator: Karen Yeyinmen
Title: Complex Sensemaking and Adaptive Leadership Practice in Higher Education
This submission has been approved. You can access the correspondence letter using the following link:
Description: [Correspondence_for_IRB13-1782.pdf\(0.01\)](#)
To review additional details, click the link above to access the project workspace.

This is an automated notification email. Please do not reply to this email.

University Area IRB <http://cuhs.harvard.edu>
Longwood Medical Area IRB <http://www.hsph.harvard.edu/ohra/>

Appendix X

IRB Notification of Exemption Determination



HARVARD

Human Research Protection Program

Harvard University-Area
Committee on the Use of Human Subjects
1414 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02138
Federal Wide Assurance FWA00004837

Notification of Exemption Determination

December 6, 2013

Karen Yeyinmen
kcy759@mail.harvard.edu

Protocol Title: Complex Sensemaking and Adaptive Leadership Practice in Higher Education
Protocol #: IRB13-1782
IRB Review Date: 12/6/2013
IRB Review Action: Exempt

Dear Karen Yeyinmen:

On 12/6/2013, after review of your submission, the Institutional Review Board (IRB) of the Harvard University-Area determined that the above-referenced protocol meets the criteria for exemption per the regulations found at 45 CFR 46.101(b)(2).

Additional review by the IRB is not required. However, any changes to the protocol that may alter this determination must be submitted for review via a modification (by selecting the create modification/CR activity in the ESTR system) to determine whether the research activity continues to meet the criteria for exemption.

The IRB made the following determination:

- Research Information Security Level: The research is classified, using Harvard's Data Security Policy, as Level 2 Data.

If you have any questions, please contact me at 617-495-1775 or fennever@fas.harvard.edu

Sincerely,

Fanny Ennever
Senior IRB Administrator

University Area IRB <http://cuhs.harvard.edu>
Longwood Medical Area IRB <http://www.hsph.harvard.edu/ohra/>

Appendix Y

Information Sheet for Participation in Leadership Research

My name is Karen Yeyinmen and I am a doctoral student at the Harvard Graduate School of Education working under the guidance of my advisor, Robert Kegan.

For my dissertation research I am conducting a qualitative study using interviews and ethnographic observations to explore how three higher education leaders use different mental models when practicing change leadership on the ground. I have asked you to participate because your ongoing leadership work involves efforts to influence adaptive change in higher education and because you bring to this work both past success leading adaptive change in complex systems and highly integrative ways of understanding your work.

The purpose of this research is to contribute knowledge that will help answer critical questions about how leaders can tackle complex problems facing higher education and, more generally, facing twenty-first century society. Theories and prior research link use of highly integrative mental models to effectiveness at transforming complex systems such as institutions of higher education; however large gaps exist in our understanding of *how* these relationships operate. This research is designed to help fill these gaps by examining how three exemplary leaders who use these kinds of mental models to understand their work practice change leadership on the ground in particular settings & situations.

As a participant in this study you will be asked to take part in the following additional activities between now and approximately July 2015:

- Three in-depth interviews, each lasting approximately 90 minutes. I will conduct the first interview approximately 2-3 weeks after completion of an earlier “opening interview” and self-administered leadership style assessment (separate consent forms were provided for those activities). I will conduct the second interview approximately 1-3 months later (after the observations have been completed). I will conduct the third interview approximately one to two weeks after the second interview. During these interviews I will ask you to describe in detail how you understand the complex, intractable problems facing higher education and your institution in particular; your efforts to address one or more of these problems on the ground; and your view of the value of thinking about and acting on these problems in ways that are informed by integrative understanding. All interviews will be recorded and professionally transcribed.
- Making every effort not to interrupt your normal activities, I will observe you in the act of practicing change leadership in a variety of natural settings, with a variety of people, and with respect to one or more specific lines of change work you are pursuing (“focal challenges” to be identified during the first in-depth interview). I will work closely with you to select situations and events to observe, which may include meetings, conferences, conversations, or speeches at which you may be inter-acting with other members of your community. I will request that you provide authorization and access needed for me to complete these observations. If possible, we will identify one or more days or half-days during which I can “shadow” you by accompanying you throughout the day/half-day to observe both the activities you undertake, and your ways of moving through and between them.
- At one or two points mid-way into the study or later you will receive from me and be invited to comment on (over the phone or in writing), a short memo that I have prepared

Appendix Y (Continued)

summarizing my emerging insights from the study. Your critical feedback on this memo will be useful for helping me test and refine my interpretations of the data. You may also request from me a copy of the final report when the study is complete.

When scheduling the activities above, I will work closely with you and the person you have designated to schedule them in places and at times that are agreeable to you. Below is some additional information related to the research. Please review it carefully and let me know if you have any questions.

- I will keep the data I collect confidential, and will not share your identifying information with anyone, not even my three dissertation advisors.
 - Identifying data will be stored on my personal computer in a password-protected file that only I can access.
 - Your name and other identifying details, such as employing institution and the names of specific people and groups with whom you interact, will be masked in all transcripts, presentations, and reports.
 - Interview recordings will be shared only with the professional transcription service I hire, who is contractually bound to keep your identity confidential & destroy recordings after use.
- Findings from this research may be published for scholarly purposes, or to inform leadership practice, and may be presented in public forums, now and in the future. I will take the utmost care in protecting your identity at all stages. However, as you are a public figure, some people who are highly familiar with your work may be able to identify you.
- You may decline participation in any activity, or part of any activity, at any time. For example, you may skip questions you don't want to answer during interviews or ask me to leave during portions of an observed event.
- You will have the opportunity to read a draft copy of sections of the report based on your leadership and I will honor your timely requests to modify or remove select interpretations or descriptive details that you feel strongly about changing/removing.
- Being in this study is voluntary. You can tell me if I do not want to participate or if you decide to withdraw at any time before the interviews and observations have been completed.

If you have questions about this research, you can contact me using the following information:

Karen C. Yeyinmen, 18 Nathan Pratt Drive, Unit 309, Concord, MA 02174
Email: kcy759mail.harvard.edu | Phone: 617-272-5915

Acknowledgement of Receipt

I acknowledge that I have received a copy of this information sheet and been able to ask any questions that I have. I understand that I am free to withdraw from this study at any time before interviews and observations defined above have been completed without incurring any penalty.

Signature of Participant: _____

Name of Participant (print):

Date:

Appendix Z
Evolving Business Association Language/Commitment

1/5/2015 Business Association Releases 2015-2016 public policy priorities

HUMAN RESOURCES, HEALTH CARE, WORKFORCE DEVELOPMENT PRIORITY:

The Business Association supports efforts to develop STATE's future workforce.

Positions include:

- Increase awareness about careers in advanced manufacturing, high technology & health care
- Support curriculum standards, such as Common Core State Standards, that better prepare young people with the core skills and professional behaviors necessary to succeed in post-secondary education and/or in the workforce upon graduation from high school.
- Advocate for restored and increased funding for need-based scholarships
- Support programs and initiatives to build the talent pipeline of STATE's workforce by identifying specific skills needed by businesses, aligning education and training with those needs, and identifying and measuring outcomes

3/5/2015 Business Association testifies to House Finance Committee (written comments)

... four priority areas for the association that we hope you will take into consideration as you work to craft a House budget over the next several weeks, [among them]...

Adequate funding for higher education. STATE businesses need well-educated workers, particularly in the STEM (science, technology, engineering, mathematics) fields. Advanced manufacturers and high technology companies continue to experience difficulty finding and hiring qualified talent in these critical areas. An adequate pipeline of students is needed to ensure STATE employers have the skillsets they need to produce goods and services now and into the future. We support adequate and appropriate funding for the University System and Community College System in the state's budget to help STATE produce a pipeline of students who will remain and thrive in the state.

5/5/2015 Business Association testifies to Senate Finance Committee

... To begin, I want to emphasize that we recognize the committee's difficult task ahead. We understand that building a budget requires striking a balance among many different special interests, many of whom are here today advocating for programs that rely on state funding. My testimony will focus on those parts of the budget Business Association believes will have a significant impact on STATE's economic growth, [including]...

Supporting secondary education, especially STEM programs at our community colleges and universities, is critically important for ensuring our next-generation workforce is educated and prepared for 21st-century jobs. Specifically, Business Association supports the University System of STATE biennial appropriations request for restoration of funding to a level that will adequately support the continuation of a tuition freeze...

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