



Organizational Change as Paradigm Shift: Analysis of the Change Process in a Large, Public University

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Source: *The Journal of Higher Education*, Vol. 65, No. 6 (Nov. - Dec., 1994), pp. 670-695

Published by: [Ohio State University Press](#)

Stable URL: <http://www.jstor.org/stable/2943824>

Accessed: 04/07/2013 09:50

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Organizational Change as Paradigm Shift

Analysis of the Change Process in a Large, Public University

Introduction

Since the mid-1960s, systems theory has dominated the study of organizational change [43]. By viewing organizations as adaptive organisms that strive toward equilibrium under changing environmental conditions, systems theory shifted the focus of organizational research from exclusive attention to internal conditions to a concern with the relationships between the organization and its environment [10, 20, 24, 41]. Metaphors originating from the systems perspective have resulted in many new directions in organizational change research [32].¹ Common to most systems theorists is the assumption that, in the absence of dramatic changes in the environment, organizations will best be served by slow, adaptive change. Other theorists [50] have argued that educational organizations are unusual systems, in that they are “loosely coupled,” a characteristic that makes large-scale change less likely to occur rapidly or to affect the whole organization in dramatic ways. The only strong alternative to the systems theory/incremental change perspective over the past two decades has been a political perspective [1]. This is perhaps best exemplified by Cohen and March’s

An earlier version of this article was presented at the annual meeting of the University Council for Educational Administration, Baltimore, Md., October 1991. We would like to thank two anonymous reviewers, Robert Silverman, Melissa Anderson, and Richard Heydinger for their helpful comments. Correspondence should be addressed to Karen Seashore Louis, 104 Burton Hall, University of Minnesota, Minneapolis, MN 55455.

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Journal of Higher Education, Vol. 65, No. 6 (November/December 1994)
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[8] image of universities as “organized anarchies,” in which change is unpredictable because of the random but politicized nature of the involvement of different actors with different agendas and interests. Again, however, this perspective points toward the limited possibility of rapid, strategic change.

Along with these approaches to organizations, a new stream of cultural organizational research that incorporates a systems perspective, concern with metaphors, and anthropological theory appeared [11, 16, 34, 36, 40, 45, 46]. Cultural perspectives on organizations emphasize the maintenance of strong organizational cultures as a strategy linked to higher performance [36] and thus point to the conclusion that strategic management in successful organizations usually involves anticipatory adaptation rather than radical change.

An alternative perspective is grounded in Kuhn’s [23] analysis of scientific progress, which also emphasizes the role of shared beliefs, values, and norms of behavior but points to the importance of radical shifts as a mechanism for maintaining vitality and progress in a system. It is this latter perspective that motivates the central question being investigated in this article: To what degree can major organizational changes in universities be said to be characterized by a change in a collectively understood paradigm that is reflected in metaphors, stories, or myths that reflect underlying values and shared understandings of how these metaphors and myths are enacted? To explore this question, we have investigated a strategic change process in a large, public university.

Organizational Change as Paradigm Shift

The terms “paradigm” and “paradigm shift” are part of the popular language of change at the present time. However, the concept of paradigm is usually misapplied and is typically used to refer to any set of beliefs that precipitates action. To investigate the applicability of a paradigm model to universities requires a more precise conceptual foundation. Our article is based on several assumptions, which will be further developed below: (1) Organizations are defined by their paradigms, that is, the prevalent view of reality shared by members of the organization. Under a particular dominant paradigm, structure, strategy, culture, leadership and individual role accomplishments are defined by this prevailing world view; and (2) radical change in organizations may be construed as a discontinuous shift in this socially constructed reality.

Kuhn [23] argued that the evolution of scientific theories is always punctuated by revolutionary leaps in which the entire shape of scien-

tific activities and world views are altered. Change in scientific activities follows a predictable path where a long period during which the dominant scientific theories are barely questioned is punctuated by noncumulative, radical breaks. Since the late 1970s, a handful of researchers have been interested in translating this perspective into a theory of organizational change [3, 17, 31, 37, 38, 44].² These studies emphasized that organizations can be understood as enacted realities that define what to do and what not to do in organizations as a symbolic resource. More specifically, an organizational paradigm can be defined as a world view, a frame of reference, or “a set of assumptions, usually implicit, about what sorts of things make up the world, how they act, how they hang together, and how they may be known” [3, p. 373]. This world view is composed of three interrelated components: (1) a way of looking at the world which creates an image of the subject matter about the world’s phenomena and constructs a system of beliefs; (2) a way of doing things that provides the methods and instruments needed to apply fundamental beliefs to internal and external realities; and (3) an interaction among human agents to support both the belief system and the normative behavior, including social networks that support the adoption and practice of a particular paradigm [31, 38].

However, these initial attempts at theory development fell short of a concrete, conceptually strong and methodologically sound model of organizations as paradigms and organizational change as paradigm shifts, and empirical investigations in this promising area have not materialized. In the following section we will further develop a model that can be empirically tested.

A Model of Organizations as Paradigms

Figure 1 is a representation of a model of organizations as paradigms in which three domains are in continuous interaction. In the figure, *background assumptions* — a way of looking at the world — are central to the model and comprise the abstract and often tacit dimension of organizational paradigms defined as myths. They are the forms of selectively collected and integrated pieces of knowledge that shape the underlying belief system in the organization. They are called myths because long-lasting beliefs generally turn into a mythical phenomenon which later becomes quite resistant to change.³ Metaphors, on the other hand, are convenient short-hand descriptions of a particular belief system or myth — an expressive (language-related) form that facilitates communication in understanding the tacit assumptions of a belief system. Metaphors filter and define reality in a simple fashion such as “Richard is a lion,” “the brain is a computer” [47, p. 98], or “organiza-

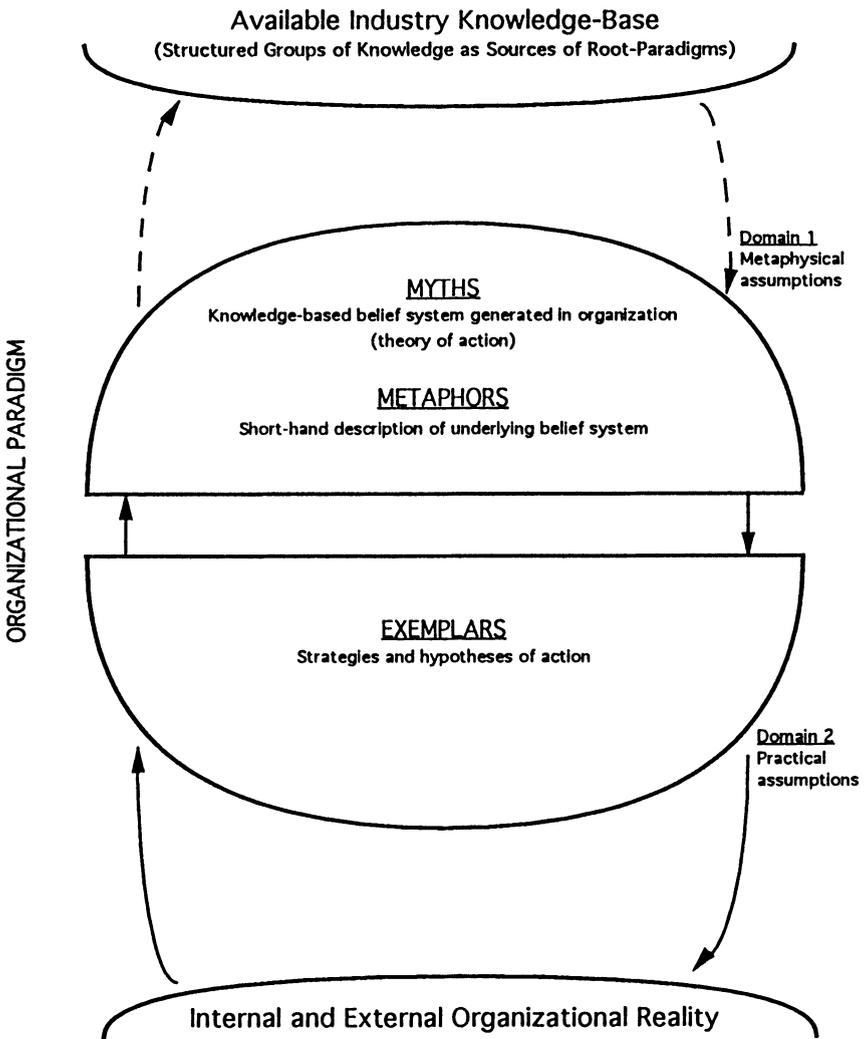


FIG. 1. Organization as Paradigm: An Interpretive Process

tions are machines,” “organizations are organisms” [32]. Metaphors are powerful in describing the most important features of a complex array of variables in a simple form, but only provide part of a whole picture. Exemplars and models are directly drawn from the dominant myth(s) and guide the action in organizations. They are the most visible part of any paradigm, for they are the collection of typical organizational strategies and actions [15, 18]. They are examples of what an organization typically does in accomplishing the required organizational tasks.

The relationship between organizational assumptions and action is moderated by the organization's environment. The lower domain shown at the bottom of figure 1 identifies the *specific/unique organizational realities* to which the paradigm principles are applied. The actions of any organization are guided by a set of background assumptions grounded in the details of particular settings, actors, and history of successes and failures. In providing explanations for how major changes occur in organizations, we also need to consider that "no organization is an island." Rather, each belongs to a population that performs similar functions and shares, at least in part, a common perspective and set of beliefs — values [14]. The upper domain thus represents a *constructed body of knowledge* (scientific or nonscientific) that is shared by a number of organizations in a particular industry or sector. It is a tacit symbolic source of the dominant understanding of the world, current technologies, market relations, use of resources and many other characteristics in an industry.

Following Kuhn, knowledge structures may change in a revolutionary manner due to changes in the environment, such as when a technological breakthrough occurs that has the potential of altering the entire industry/sector. In education, however, the knowledge structure is more likely to respond to changes in the external environment than to technological invention; demographic shifts have had more impact than, for example, changing information technologies such as computer hardware and software [7, 13].⁴ Because changes in educational knowledge are often ambiguous, this domain usually contains more than one paradigm that represent the "facts" behind each technological/environmental revolution. While a particular knowledge paradigm may dominate an entire industry,⁵ the more ambiguous the knowledge, the more likely it is that there will be a dominant paradigm coexisting with several strong, but less popular "world views."

Between the upper and lower domains of figure 1, the organization enacts its particular reality largely through social interaction and formal and informal sharing of experience. At a particular time and place, a dominant world view directs the organizational activities.⁶ This frame of reference, or paradigm, is defined by an underlying belief system/background assumptions that are tacit and abstract and by exemplars and models that are concrete and observable.

A Model of Organizational Change as Paradigm Shift

Figure 2 is a representation of a dynamic organizational change model that takes into consideration the fundamental characteristics of the Kuhnian change perspective and the distinctive realities of organi-

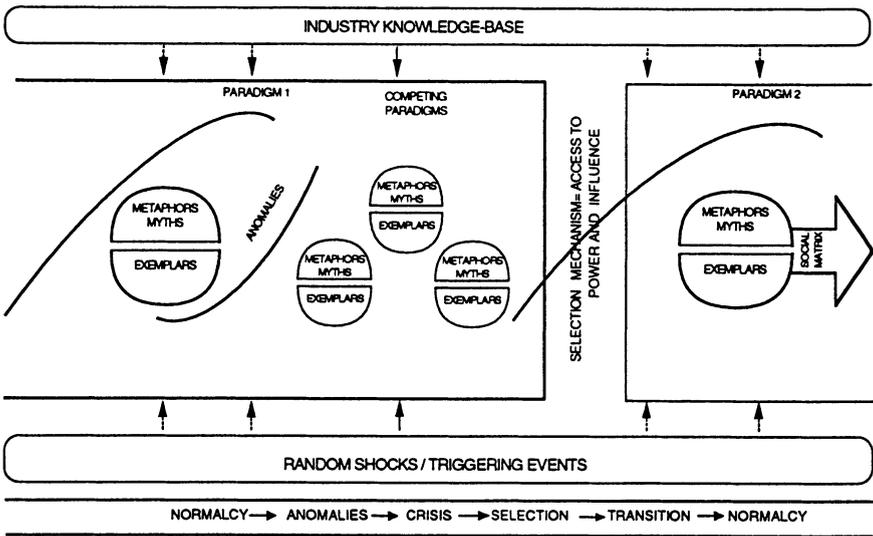


FIG. 2. Organizational Change as Paradigm Shift

zational life. The model comprises five separate and consecutive phases: normalcy, confrontation of anomalies, crisis, selection (revolution), and a new normalcy period.

1. *Normalcy*: This period is characterized by adaptive organizational activities and a slow pace of change. It is assumed that a particular paradigm has established dominance in guiding the organizational activities and imposing a set of tacit organizational knowledge as reference to those activities [3]. Background assumptions and the model and exemplars provided by the ruling paradigm are not questioned seriously when inconsistencies occur between expected and actual outcomes.

2. *Confronting Anomalies*: Anomalies can result either from facing unresolved puzzles or from sudden changes occurring within and outside the organization. In order to view problems as anomalies, they must provide uncertain stimuli within the organization for an extended period. Thus the discovery of anomalies is a matter of perception. Managerial elites (like Kuhn’s scientific elites) generally perceive the world view associated with their paradigm as taken-for-granted and avoid any questioning of their ideology [44].

3. *Crisis*: If organizations experience anomalies (reduced market share, low morale among employees, or continued poor performance in the primary mission) over a long period of time, they may trigger the beginning of a crisis period in which the organization’s paradigm is

questioned. Members begin to look for new ways of thinking which either spring from within their own sector, or are transferred from paradigms available in other organizational industries or sectors. A new leader is often seen as a catalyst to solve the crisis.

4. *Selection*: During the crisis period, the competition between available, but largely untested, paradigms is intense [47]. Logically, they have an equal chance to be the next dominant paradigm in the organization until another organizational reality is factored in: “the imposition of [a paradigm] reality by more powerful groups” [3, p. 375]. Thus, in figure 1, the selective mechanism for preferring one paradigm over others is access to power and influence. Note that this component of a paradigm shift is absent from Kuhn’s perspective but is consistent with studies of decision-making and change in higher education [8, 1].

5. *Renewed Normalcy*: As a new paradigm becomes dominant, a wave of enthusiasm appears in the organization. This coincides with the establishment of new power relations and the appearance of new actors on stage. Instability characterizes the initial policy formation period of the new paradigm, in which new organizational structures, procedures and systems are initiated [19, p. 157]. Under new sets of metaphors, myths, models, and exemplars another paradigm life-cycle begins, and the social matrix of the paradigm continues to extend within the organization.

Statement of the Problem

The explanatory power of the model was tested using the strategic reorientation process in the University of Minnesota that began in the late seventies. The following questions guided the data collection and analysis process:

1. *Exploring the old paradigm*: What was the dominant paradigm in the organization prior to the paradigm replacement period?
 - What metaphors served as the short-hand description of the old paradigm?
 - What myth(s)/set of beliefs guided the organizational activities?
 - What exemplars and models defined the paradigm-in-action?
2. *Exploring anomalies*: Were there anomalies that led to the emergence of the paradigm-in-use in the organization and, if so, what were their nature and characteristics?
3. *Sector knowledge*:
 - Were any root-paradigms or available models of action available in the higher education sector during the anomalies period?

- Did particular external events and trends trigger the paradigm replacement process?
 - Were there competing paradigms or world views in the organization prior to the selection of the paradigm-in-use?
4. *Nature and characteristics of the selection process.*
 5. *Characteristics of the new dominant paradigm:* What are the current metaphors, myth(s), exemplars, and models?

Before describing our methods, we will first provide background information about the planning process at the University of Minnesota, in which the case study was conducted. The University of Minnesota was selected as a case study site not only because of its convenience but because existing research suggested that efforts to create change at this institution were present over a relatively long period of time. This made it an excellent site in which to “test” the degree to which efforts to reorient a large university could result in a paradigm shift, rather than incremental change.

Strategic Planning in the University of Minnesota

The planning process at the University of Minnesota dates back to the mid 1970s. Clugston [9] divided the strategic planning process in the university into four phases: Between 1974 and 1979, the structure and framework for planning began with the appointment of a planning council by the president. After this preparatory discussion, the first cycle of planning occurred between 1979 and 1982. The second cycle, which occurred between 1982 and 1984, was an attempt by the university to link the in-process program prioritization with budget reallocation decisions as a response to a severe cut in state funding caused by a budget shortfall. The third cycle (1984–85) focused on letting each unit find ways to develop strategies in order to implement identified priorities. The fourth cycle (1985) required each unit to reexamine its mission in light of the second and third cycles of the planning process [9, p. 96].

This formal planning process was interrupted by [interim] President Kenneth Keller (previously the vice-president for academic affairs). His *Commitment to Focus* proposal, announced in the early months of 1985, was largely based on the previous committee recommendations — although it was a personal interpretation — and it gained the support of the majority of the faculty as well as the governing board [12].

The plan laid out the following assumptions [21]:

1. Efforts of higher education institutions in the state should be coordinated, and/or duplicative efforts should be minimized;

2. Faculty should be released from certain involvements, such as a heavy teaching load;
3. The university is out of balance in terms of the ratio of undergraduates to graduates;
4. Quality should not be sacrificed in order to preserve breadth of programs;
5. Various university campuses should be coordinated through a number of rearrangements.

Keller's plan initially received wide support from inside and outside the university. By the time it was announced, the search was on for a new president, and Keller was appointed by the governing board in 1986, owing in large measure to his plan. Described by many as an intelligent and visionary leader, he managed to convince the legislature on a key proposal that decoupled state funding from undergraduate enrollment.

However, he resigned in March 1988 as a result of a public controversy regarding the financial management of the university [12]. The new president, Nils Hasselmo, was recruited in 1989 from an administrative position at the University of Arizona. During his previous tenure at the University of Minnesota, he had served on many committees related to the initial phases of the strategic planning process. In his inauguration address, he demonstrated his strong support for the fundamental spirit of *Commitment to Focus*. However, the plan was renamed "Access to Excellence" in order to overcome some public charges that the original plan was elitist, and the educational improvement emphasis was shifted from graduate to undergraduate education.

Research Design and Methodology

To answer the questions posed earlier, we used a qualitative case study design [52]. Because a paradigm is a socially constructed reality, subjective perceptions of the organizational members are the logical source of metaphors, myths, exemplars, and models [38], and such data are difficult to collect through survey instruments or unobtrusive measures. We focused on faculty as informants, because they are viewed as carrying a special status of responsibility for conserving the university and typically have a longer time perspective than administrators, who, at least at the University of Minnesota, often occupy their positions for five or fewer years.

An open-ended interview schedule was developed. Each question

dealt with a particular dimension of the change model depicted in figure 2, although it was designed to use language that could be understood by faculty in a variety of disciplines. The interview was pilot-tested on four members of the university community, including one professor who also occupied an administrative position, and was refined to eliminate confusion about meaning and language [52, p. 75].

A “multiple embedded case design,” which involved sampling several departments within the university, was used in order to increase the validity of the study [52, pp. 44–47]. After consulting with knowledgeable members of the faculty, five departments from four large colleges in the university were selected: Strategic Management (School of Management), Political Science and English (College of Liberal Arts), Mathematics (Institute of Technology), and Food Science (College of Agriculture). The departments were chosen to reflect a wide variety of disciplinary backgrounds, because they are largely isolated from each other both physically and intellectually and because they have contributed at very different rates to faculty governance. It was assumed that if common metaphors, myths, and exemplars could be found among such a diverse set of faculty members, we would have some confidence that we were observing a shared organizational paradigm.

In each department we obtained a list of faculty members who had been in the institution for at least ten years and randomly selected five primary and three substitute respondents from these lists. Potential respondents were contacted by a letter followed by telephone call. Uninterested or unavailable faculty were replaced from the substitute list. A total of twenty-four faculty members was interviewed (one appointment could not be scheduled within the time frame). A typical interview ran about forty-five minutes and was tape-recorded and later transcribed by a professional typist. About 190 single-spaced pages of interview transcripts were produced.

In analyzing the data, systematic qualitative methods were followed [28, 35]. First, the researchers produced a coding scheme based on the issues and questions. Each interview transcript was sorted without changing the original word structure or phrasing as used by respondents, so that each piece of information was grouped under a related category. Then each posted item under a particular category was given a “tag” describing the whole sentence. Following this procedure, tags under each category were compared across five interview transcripts for each department and then grouped. For example, program eliminations, closings, mergers, and consolidations made up a group of exemplars [actions] of the paradigm-in-use.

*Results**Identifying the Old Paradigm*

*Metaphors:*⁷ A total of thirty-two metaphors was produced by twenty-two respondents, of which more than one-third were mentioned by more than one faculty member: octopus, elephant, amoeba, and a wildly growing garden/vegetable. Other metaphors can be combined with these. Cow and buffalo, like elephant, target the size of the institution. By the same token, metaphors such as “a tangled up ball of twine,” “an enormous Chinese menu of offerings,” “unruly group of school children,” “a feudal-medieval landscape containing many fiefdoms with their own princes and princesses,” “a wagon train going different directions for different purposes” and “a beehive going different directions, doing their own separate jobs” can be combined with the metaphor of “a wildly growing garden or vegetable,” because all of them explain an organized anarchy in terms of lack of control, lack of coordination and collaboration, and uncontrolled growth in organizational activities.

By combining the metaphors in terms of their contextual similarities, we found the following images: amoeba (3), octopus (5), elephant and related metaphors (5), a wildly growing garden/vegetable and related metaphors (8).

Reading these metaphors in terms of their most visible characteristics, we can make some interpretations about the nature of the old paradigm. For example, an amoeba is a one cell living organism which is essentially shapeless and multiplies by fission. The metaphor refers to the fact that the organization was not characterized by a strong/solid identity, perhaps “being all things for all people” as a land-grant university, and that it was in a constant process of multiplication, which is closely related to “a wildly growing garden or vegetable” metaphor. On the other hand, the elephant, cow, and buffalo are all visible with their size and massive body. The metaphors identify an organization characterized by its mass and impressive size that has traditionally been one of the largest public universities in the nation. The octopus, however, is easily identified with its multi-armed body. In explaining their choice of this metaphor, many faculty members pointed out that “the university was like an octopus with its eight arms embracing different constituencies simultaneously.” Moreover, the metaphors of “wildly growing garden or vegetable” and other related ones, as listed above, characterize an uncontrolled and continuous growth and expansion in the program areas and activities in the organization. As will be pointed out

below, each metaphor was strikingly linked to a group of central exemplars and anomalies that led to a crisis situation in the institution.

Besides the metaphors provided for the old paradigm, respondents used adjectives in an attempt to define the meaning of the metaphors that they identified. The list of adjectives included: big, large, sloppy, ponderous, very slow, departmentalized, multi-limbed, stumbling, dividing, decentralized, unplanned, unruly, opportunist. Again, these adjectives are closely connected to types of exemplary actions in the organization — which later became the anomalies.

Myths/exemplars: Myth(s), or the “stories” that identify the belief system in an organization, are usually derived from the exemplars and models. Because a belief system, background, or metaphysical assumptions are tacit and abstract, organizational members usually explain them by using some central examples [18]. Five activities were identified by respondents as concrete applications or exemplars of the belief system of the old paradigm: (1) growing, expanding, diversifying program areas or increasing variety/ offering many programs (78 percent); (2) giving priority or emphasizing the teaching mission of the university (50 percent); (3) growing size resulting from an open access policy and low admission standards (41 percent); (4) highly decentralized decision making, with virtually complete freedom granted to units to develop desired programs (36 percent); and (5) emphasizing the service mission of the university (30 percent).

What type of organizational myth do these exemplars describe? The teaching and service emphasis and large size resulted from open access policy; low admission requirements and quantity emphasis can be linked to a dominant myth that the primary responsibility of the institution is to educate sons and daughters of the citizens of the state, which in turn is linked to the perceived populist/agrarian socialist history of public policy in Minnesota. Faculty interviews have clearly pointed out the validity of this statement: 71 percent (17 out of 24 respondents) in one way or another suggested populism as the belief system in the university. This myth can be stated as follows: “The mission of the university is to educate all who live in the state of Minnesota. Access to university is an entitlement of citizenship.”

Although closely linked to a populist myth, faculty identified another distinctive myth: the continual growth, expansion, and diversity in program areas and activities, which was fostered by unit autonomy and decentralization in the decision-making structure. While some linked size with populism, an institution whose primary responsibility is mass education need not always be a decentralized one; a centralized and

much more highly coordinated higher education system, as is found in a number of other states, might well satisfy the same ends. Thus, the second internally driven myth is associated with exemplars that point to “an entrepreneurial spirit” and an institutional value placed on independent, expansionist behavior.

Identifying the anomalies: Seven problems were identified as anomalies resulting from the old paradigm. The growth and expansion exemplar discussed above was identified as putting a burden on increasingly limited finances of the institution (79 percent), thinly spreading resources (54 percent), which also caused a decline in the overall quality of the programs (46 percent). The fourth anomaly (size of the student population) is linked to the size-related exemplar, but was also noted as creating a high student-faculty ratio and an increase in undergraduates at the expense of graduate students (46 percent). Thus, the faculty’s teaching load was expanded, ultimately weakening research and graduate level studies.

A fifth anomaly, “duplication of efforts in the state higher education system (38 percent),” was highlighted by the *Commitment to Focus* proposal. In this document, Interim President Keller argued that teaching and undergraduate functions traditionally allocated to the university could be shifted, in part, to expanded state university and community college systems, asserting also that the open-access mission of the university was designed at a time when there were no other higher education opportunities in the state. The sixth anomaly, “lack of leadership” (21 percent), helps to account for why units became so decentralized and activities were uncoordinated. Some respondents pointed out that the reason why Keller initially had so much support from inside and outside the university was that he provided a sense of leadership and vision for the institution.

Sector knowledge: Twenty-two out of twenty-four respondents (92 percent) agreed that there were other higher education institutions trying to do similar things in or before the mid 1980s. More than fifteen institutions were named as being involved in similar reorientations, but the most frequently named higher education institutions were those that completed or achieved a successful reorientation in the late 1970s and early 1980s. These included the University of California system and the Michigan system in general (46 percent) and Berkeley and the University of Michigan in particular (25 percent). The content of their change efforts was stated as a renewed emphasis on research, reorganization for more efficiency, reduction of size, restriction of admissions, clearer separation of research and teaching functions within the state

higher education system, and upgrading of quality. Also, according to the faculty, these change efforts originated as a response to centralized planning, “the accountability movement,” financial retrenchment, efforts to advance in the national ratings, and a trend toward more research and graduate level emphasis.

Triggering events: Faculty also pointed to particular external events and trends that helped to trigger an examination of anomalies, five of which were identified by multiple respondents. The first was the recession in the state economy in the early 1980s (46 percent) which resulted in a reduction in the allocation of state funds for the university. Next was Reagan’s higher education policy at the federal level, which was described as antipopulist (42 percent). The third triggering event, as cited by the respondents (33 percent), was the election of an activist governor, who demanded that the University limit its activities. The fourth (29 percent) was a combination of national concerns that emerged in the early 1980s, such as increasing global competition, concern about quality of education at all levels, and, in particular, the national perception that there was a drop in academic performance in higher education institutions. The final event, recalled by 24 percent, was a demographic forecast that demand for higher education and student enrollments would decline.

Competition between old and new paradigms: In his analysis of scientific progress, Kuhn argued that there would always be a clash between the new and the old paradigms in the paradigm replacement period [23]. According to the respondents in this study, the strongest opposition against the *Commitment to Focus* proposal was from the believers of the old land-grant philosophy (what we have called “populism”) according to 75 percent of the respondents. Specifically identified were rural constituents from “Greater Minnesota,” legislators representing these areas, and some faculty who identified with this group. A second source of opposition came from those units and departments that were threatened by the proposal (63 percent). Those were various autonomous service units and small, expensive, or low priority programs. The third source of opposition (29 percent) was founded in the old belief system that rewarded teaching, service, and undergraduate education, as mentioned in the exemplars section. This group consisted largely of older or senior faculty.

Nature of the selection process: According to faculty members, the Board of Regents’ adoption of the *Commitment to Focus* proposal as its formal institutional policy was actually a result of the personal, political, and leadership skills of a new, energetic, young, visionary presi-

dent (83 percent). His skills played an important role in gaining support from faculty, regents, the governor, legislators, and the business community. The proposal was strongly backed by these power sources according to the respondents (58 percent). We also note that these groups were much more likely to reflect the interests of the growing urban sectors of the state as opposed to "Greater Minnesota." Also, the president carefully cultivated the support of a diverse group of faculty who normally had little in common — those who were oriented toward research and graduate-level teaching and those who were concerned about the declining quality in undergraduate education (54 percent).

What Is the Dominant Paradigm Today?

Metaphors: A total of twenty-four metaphors was produced by twenty-one faculty members. The list exhibits greater variety and less consensus than in the descriptions of the old paradigm, with the exception of the "lion" metaphor, which was repeated three times. However, the adjectives used suggest that the current organization is different from the previous one in terms of being more directed, focused, and purposeful in its strategic orientation, smaller and trimmed down in its size and structure, and more coordinated in its internal decision making. The adjectives and verbs used as explanations for the metaphors included: more powerful, aggressive, trimmed down, directed, focused, stabilized, faster, smaller, self-sufficient, better hunter, bit ruthless, clever, pruned, coordinated, seeks, searches, scaled down. We infer that a new paradigm is still in the process of development and has not yet created a strong image. In addition, the departure of the president who designed the *Commitment to Focus* may have had a destabilizing effect. Although the new president has expressed strong commitment to the original plan, changes in language and modest changes in emphasis detract from the process of image formation.

Exemplars and models: Seven groups of exemplars and models were identified by the interviewed faculty. The first, the reallocation plan laid out in the *Commitment to Focus* proposal (67 percent), was intended to distribute resources differentially (from low priority programs/units to high priority programs/units) as opposed to the previous practice of across-the-board distribution. The second and third group of exemplars were related to reductions in scope: cuts in student enrollment and/or reducing the size of the university (67 percent) or other activities intended to lessen program and campus diversity by closing or merging departments, units, or programs (63 percent). Fourth and fifth among those mentioned was a focus on quality, especially at the levels

of teaching and undergraduate education in the university (42 percent), an increased emphasis on research, and more priority given to graduate education (38 percent). The sixth exemplar was a trend toward more central coordination through planned activities and an emphasis on collaborative work among the units (33 percent), while the final group describes a university that has aggressively directed itself toward external funding through endowed chairs, fund raising activities, and grants for research (25 percent).

The emerging action image of the university seems to be aimed at addressing anomalies that emerged from the old paradigm. For example, whereas the old paradigm praised the quantity that resulted in inflated size, the emerging one attempts to reduce it. In order to overcome financial anomalies, the new paradigm generates a partial solution by distributing the resources differentially and trying to find ways to get external funding. In order to solve the problem of diversity, complexity, and “diseconomized scale,” the paradigm that is appearing attempts to create criteria or a rationale for expanding, maintaining, or eliminating programs. To do all these, the central administration has gained a more central integration function in the internal affairs. Lastly, as a response to eroding or declining quality, the new paradigm emphasizes quality.

Assessment of the current myth: The comparisons discussed above show that the dominant myths before and after *Commitment to Focus* are not the same, yet they are not opposite. The emerging myth is neither the old populist myth, nor is it elitist. A comparison between the first four examples resulting from the *Commitment to Focus* initiative and the first four anomalies created by the old belief system suggests that the new paradigm is in the process of providing solutions to the accumulated anomalies. The new myth might be called “managed populism” in terms of the nature of the exemplars and models it has generated.

Discussion and Summary

Observers of universities are more often struck by the stability of these institutions than by their adaptability; . . . many shifts and alterations in the way a university does things occur every year. Yet these often do not add up to institutional change; rather they merely patch up the existing system [25, p. 9].

The above remarks summarize an embedded assumption that has dominated research on higher education organizations for many years. Popular evolutionary and adaptation theories of organizational change

have set the background for this line of inquiry in studying universities as organizations. However, this study demonstrates that a radical change in the ways in which faculty in a large, public university view the nature and purpose of their institution can occur within a relatively short period of time (approximately a decade). The paradigm or world view that once dominated the institution was transformed from “entrepreneurial populism” to “managed populism” through a series of stages consistent with the process of paradigm shift as outlined above. We will summarize the five-step paradigm shift model as presented in figure 2 to describe the discontinuous change at the University of Minnesota and reflect on the applicability of the paradigm shift model to the data presented.

The Paradigm Perspective Applied to the University of Minnesota

The initial period of normalcy: “Entrepreneurial populism” captures the two dimensions of the myth that dominated the university until the mid-1980s: the idea of “the servant university” dated back to an earlier period in which the university was the only public higher education institution in the state. Between the late 1950s and the early 1970s, the university faced an increased demand for higher education as a result of changing demographics, the push toward technological superiority and the subsequent increase of federal monies to universities, the civil rights movement, and increased enrollment and demands from minorities and women. But, these were also years in which resources were abundant: the state had one of the fastest-growing economies in the nation, invested heavily in education, and there were a variety of incentives that supported the drift toward opportunism. The university’s growth supported decentralization and a deemphasis on coordination, as the lower layers of the institution became stronger and demonstrably successful in marketing their services. Up to a point, the old entrepreneurial populism myth generated a sense of impressive success for the university, which became one of the largest in the nation in terms of student enrollments, among the most research intensive as measured by external funding, and much commended for the opportunities offered to various constituencies in the state.

The period of anomalies: The late 1970s marked a turning point for the university: resources began to decline, enormous size (once a privilege) was perceived as a burden, overemphasis on teaching and service weakened the research mission, and quality started eroding [12]. As a response to the anomalies, the university adopted a strategic planning process to solve the problems. However, the incremental changes and

loose linkages of the past forty years created tensions that the initial phases of strategic planning seemed unable to fix.

The period of crisis and selection: The strategic change process took a dramatic turn in 1985 by the announcement of the *Commitment to Focus* proposal, which, despite high levels of leadership turnover, became the framework in guiding the change efforts. A wide public debate took place internally and externally, which laid out a need for a discontinuous change in the university and which concentrated on the obsolescence of the old belief system and its anomalistic outcomes as discussed above.

As expected, opposition came from the internal and external supporters of the old paradigm. However, strong interpersonal and leadership skills from the architect of the new paradigm amassed political support of a coalition by key urban power holders which permitted the new paradigm to persist in the face of the lessened political influence of the largely rural adherents of the older paradigm. These results are important in supporting our conceptual model, because they confirm that (1) paradigm shifts coincide with a new leader on the scene, (2) any selected paradigm needs to be supported by an eclectic group of key power holders in and around the organization, and (3) the exercise of political coalition building skills may be essential for a paradigm shift in organizational settings where the knowledge base is ambiguous.

The period of renewed normalcy: Under attack, the new paradigm was adjusted but not significantly altered by a new president. The paradigmatic shift that has been described as a transformation from “an entrepreneurial populist” image to “a managed populist” one occurred in the mid-1980s.

How Well Does the Paradigm Shift Model “Fit”?

We conclude, based on the above summary, that the paradigm shift model based largely on Kuhn’s [23] theory fits our data well. As noted, however, a certain amount of fuzziness is evident in the metaphors provided by the faculty concerning the new paradigm. Perhaps this should not be surprising, since Imershein argues that “the full possibilities for a paradigm’s use are rarely seen at its initial inception; such awareness comes only with the growth and extension of the paradigm, so a certain degree of diversity is understandable” [18, p. 41]. This can be provided for in figure 2 by inserting an intermediary stage between selection (revolution) and renewed normalcy. The emerging paradigm at the University of Minnesota appears to be in this stage, in which parts of the old and new paradigm are meshed, with the new one gradually eliminating the old. We would argue, based on the data, that in social organiza-

tions, “revolutionary changes” do not occur rapidly and may, more likely than in scientific paradigms, incorporate elements of the old paradigm (while redefining their meaning) rather than fully rejecting them. Since our data were collected, for example, the University of Minnesota has developed several key task forces to examine different elements of the “land-grant mission,” which we interpret as part of a process of constructing a new interpretation of populism. We also suggest that a paradigm revolution can only be interpreted as such after the fact: unlike a political revolution (where discontinuity is visible from the start), the beginning and end of a paradigm shift are harder to identify.

While Kuhn emphasizes the importance of shared disciplinary perspectives, we did not anticipate that the “invisible college” of ideas about higher education reform would be well developed. Yet, sector knowledge was surprisingly well distributed among faculty, many of whom were able to cite specific strategies used to reorient and redesign other institutions which they believed to be part of the University of Minnesota’s reference group. The importance of sector knowledge clearly challenges the notion that faculty are “loosely connected” to ideas regarding institutional environment and direction, although it is very likely that their understanding of sector knowledge was moderated by selective communication from top university administrators, who were in closer contact with developments in other universities, either directly or through consultation with the faculty governance system. The relevance of sector knowledge to faculty members’ understanding of the paradigm shift draws attention to the observation that, in a relatively participatory, decentralized change process, communication networks can spread relatively esoteric and specialized information through a broad segment of a very large (over three thousand member) faculty. This suggests that, at least in higher education, internal paradigm shifts may need to be justified in terms of a larger community of organizations.

Also notable is the importance of coalition building on the part of university leaders, an aspect of paradigm change that is not discussed by Kuhn. While the ideas articulated by the “visionary leader” were described as a rehashing of existing statements, what was new was his ability to develop a coalition of external and internal constituents who supported an alternative to the existing paradigm. Most of the members of this coalition had nothing in common beyond their belief that the university should be streamlined and quality should be improved. They ranged from radical professors to right-wing business leaders; from

well-established political figures to obscure government administrators. This case underscores the need to elaborate the macropolitics of higher education organizations, a topic that has been neglected in favor of micropolitical perspectives, such as those articulated by Baldrige et al. [1] and Cohen and March [8].

Additional Implications for Organizational Research in Higher Education

We are aware that a single case study cannot prove or disprove the enduring value of a theoretical framework for the study of higher education organizations. However, the change perspective outlined at the beginning of this article suggests that the revolution-based paradigm approach can be used effectively in explaining strategic behavior within higher education organizations. We draw three tentative conclusions from our study:

The need for longer time frames in studying change in higher education: The dominant theories of change in universities have emphasized their inherent incremental nature. In the past two decades, the “open systems” theory of change, which bases its assumption of the desirability of slow adaptation on a biological survival analogy, has been augmented by more recent theories that have dominated research on decision making and change in educational settings. Universities are viewed as “organized anarchies” [8], which have a structure that is best characterized as “loosely coupled” [50]. Both of these characteristics lead to decentralization of decision making, limited impacts of leaders, and localized adaptation within sub-units. Research on strategic turnarounds in smaller institutions [7, 13] might have been viewed as challenging this dominant theoretical assumption but did not result in significant reorientation within educational research.

Our summary suggests that those perspectives are descriptive of the historical phase in which universities enjoyed prosperous growth that was facilitated by an “anarchic orientation” to strategy and a highly decentralized structure. According to Miller and Friesen [29, 30], when organizations find a strategic path that initially brings them success, they usually tend to stay in the same course. Thus, for example, the rise of the “multiversity” in the postwar period created a large, loosely linked enterprise that was, by internal as well as external standards, remarkably successful at both mass education and the production of high-quality research. However, as the paradigm change perspective outlined at the beginning of this article suggests, following a successful course over a long period of time creates excesses that turn initially

successful orientations into anomalies that cannot be addressed by “more of the same” or by maintaining the same assumptions about the essential nature of the institution. This argument is supported by the results of the study. According to faculty members, the incremental change and loose linkage of the past forty years created tensions that the initial phases of strategic planning seemed unable to fix. The mid-1980s saw the beginning of a paradigmatic shift away from loose linkage and organizational anarchy and toward more trimmed down/coordinated structural arrangements. The implementation of this paradigm shift is clearly incomplete. However, most faculty members interviewed seemed convinced that a permanent and radical change had occurred.

The need for interpretive perspectives in studying change in higher education: This case study has used a framework adapted from Kuhn, but it is part of a broader tradition of interpretive studies of organizations noted earlier in this article. According to Morgan [33], the interpretive perspective suggests the following: (a) we must understand organizations as *socially constructed* phenomena; (b) organizational members (including administrators) should be sensitive to the importance of understanding organizations as contextually based systems of meaning; (c) organizational practice is a continuous process of enactment; and (d) organizational contexts are enacted domains. This broader interpretive perspective is clearly compatible with the paradigm-shift model presented here, and it stands in opposition to the more common alternative which focuses on the role of leaders in generating and guiding “transformations” that are based on rationally planned changes in structure and procedures. Our data suggest that changes in structure and procedures (while they might be excellent indicators that a change has taken place) are difficult to carry out and do not produce much change in behavior (exemplars and models) until there has been a genuine shift in the underlying assumptions and values (myths and metaphors).

The implications of the interpretive framework are significant for administrative as well as organizational theory. They imply, for example, that real organizational change requires leadership strategies that emphasize interpretation of organizational values and meaning rather than emphasize organizational restructuring and administrative control. Leaders, for example, must become effective story tellers rather than commanders-in-chief, and must learn to become “post-heroic” in the sense that they must give up the hope that they can personally control the destiny of the organization. Managing meaning is a considerably more slippery endeavor than traditional models of leadership would suggest.

The need to rethink the role of strategic planning: Despite what the strategic management and planning models assume, change is a highly decentralized yet community-based activity. Change that is orchestrated from the top (as is typically suggested in the strategic planning literature) and which reflects the “vision” or subjective realities of an elite group cannot define an institution-wide change process unless it takes into account the alternative competing paradigms that have typically emerged in different parts of the organization. Our data suggest that changing a paradigm in a research university is far more complicated than creating a visionary statement of the future and that visions that articulate the direction of a paradigm shift may emerge as a consequence of strategic planning rather than as a stimulus to it. This perspective is consistent with Bryson’s [4] argument that strategic planning in public organizations rarely begins with a strategic vision.

Strategic planning may work on the surface, particularly in smaller colleges, such as those studied by Chaffee [7] and Hahn [13], where collective discussions about assumptions and values are easier to manage. It is not, by itself, capable of stimulating changes in principles of action, background assumptions, and myths and metaphors that constitute the organizational paradigm. Without incorporating the significance of these factors in a large-scale transformative process, strategic planning will not be able to address the chaotic and unpredictable phases of change that are characteristic of more complex, decentralized organizations such as research-intensive universities.

In conjunction with the above point, our analysis suggests that change is both evolutionary and revolutionary. The first decade of planning at the University of Minnesota was not a failure; change happened — but not radical, universitywide change [25]. We hypothesize that traditional strategic planning and change techniques may be extremely helpful as tools for designing changes within large institutions during a “normalcy period,” but may be less helpful when there is a need to change socially constructed meanings across the entire organization. However, the analysis in this article reveals that even apparently easy targets of change in organizations (admitting fewer undergraduates and raising admissions standards) are deeply connected through the paradigm to more difficult, unstated targets of the change process (the need to challenge deeply held beliefs about the meaning of populism). Furthermore, strategic planning and management models hold a largely unrealistic premise concerning the change capabilities of the existing management in organizations. Our data suggest that strategic planning at the University of Minnesota was largely ineffective until new actors with new beliefs and values emerged and publicly challenged the existing paradigm.

Many of the managerial and strategic planning models are one-shot proposals to solve problems in organizations, which may be repeated every few years, but are not assumed to be continuous. The change model implied by this study assumes an unbroken change effort lasting many years, because the process of testing new meanings cannot be separated into episodic planning efforts. According to the data presented in this study, typical strategic planning efforts in the evolutionary (normalcy) phase result in the paradigms.

Notes

¹The life-cycle metaphor, for example, has described organization on the basis of birth, maturity, and death. Organizational ecology has used the Darwinist analogy of the “survival of the fittest,” and has examined the mimetic character of successful organizations [14]. Contingency theories, on the other hand, have generated a metaphor of situation-specific adjustment between organizational variables and environmental situations [24].

²Kuhn’s models have always been controversial, beginning with the strong attacks by Popper and other “positivist” philosophers of science. A key criticism of Kuhn’s notion of paradigms has been recently expressed by Bartley [2], who argues that they are overly relativistic: Scholars love the concept because it offers them an opportunity to legitimize any investigative behavior under the rubric of “it’s part of my paradigm.” In addition, it overstates the importance of repressive group values as contrasted to the entrepreneurial spirit of individuals and thus corresponds to socialist and communist political ideology, as contrasted with the market economy ideal. Some have questioned the applicability of Kuhn’s paradigm model to organizational analysis, and Kuhn himself has expressed discomfort with “abusive” use of his concept by others. Nevertheless, the application of Kuhn’s ideas to organizations is consistent with a growing interest in interpretive or constructivist approaches in social science generally [39]. Burrell and Morgan’s [6] influential discussion of research traditions in social science identifies the interpretive perspective as one of four key frameworks for analysis. Thus, while we are sensitive to the fact that the terms “paradigm” and “paradigm shift” have been popularized in ways that misconstrue the original intent of the theory, our effort here has been sensitive to the underlying philosophical premises of an interpretive approach to understanding radical change.

³Therefore, myth in the model denotes Kuhn’s metaphysical assumptions.

⁴The process of radical change or revolution may take generations to complete, during which time change is limited and slow, as perceived by both insiders and outsiders. Thus, for example, many observers of U.S. universities would agree that the last radical shift occurred during the post-WWII period, which saw major changes in the scope of research funding and a concomitant increase in the differentiation of functions among different institutions of higher education. For most members of the university who did not live through this shift, there is little or no recognition that this change occurred — a reflection of the depth of the current paradigm.

⁵Using Kuhn’s terms, this would result in the conversion of others into a particular paradigm.

⁶This assertion is not inconsistent with the notion of “muddling through,” or the organizational “garbage can.” We assume that one of the reasons why the accumulation of individual quasi-rational decisions may appear appropriate or even strategic in hindsight is that individual decisions are guided by similar paradigms and interpretations of specific local needs/information.

⁷To elicit metaphors and myths, two types of questions were designed: direct and indirect. The direct question (Which metaphor, image or analogy would best describe this institution before 1985? After 1985?) was relatively unsuccessful in terms of collecting striking images. However, the indirect question (Which animal or living organism would best describe this institution before 1985? After 1985?) elicited rich material. The indirect method was suggested by Gareth Morgan, at an informal seminar at the University of Minnesota.

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