

MULTI-LEVEL LEADERSHIP: GROUNDED THEORY AND MAINSTREAM THEORY APPLIED TO THE CASE OF GENERAL MOTORS

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Selected aspects of Hunt's (1991) extended multiple-organizational-level leadership model are used in an illustrative analysis of a case narrative emphasizing Roger Smith's almost decade-long tenure as chair and CEO at General Motors. The illustrative analysis compares and contrasts ways in which grounded theory and mainstream perspectives can be applied to help explain what occurred at various hierarchical-organizational levels during Smith's tenure. Propositions based on the case narrative and selected aspects of Hunt's model are developed and discussed in terms of grounded theory and mainstream perspectives. Two illustrative propositions are analyzed using levels-of-analysis theory in combination with the hierarchical organizational levels emphasized in Hunt's framework.

INTRODUCTION

The study of leadership, like that of the organizational and behavioral sciences of which it is a part, is undergoing profound change. A recent approach, Hunt's (1991) "extended multiple-organizational-level leadership model," is representative of such change. As we show shortly, among other things, this model emphasizes the concept of level in two ways. First, it examines leadership as a function of hierarchical organizational

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levels. Second, it considers the level-of-analysis implications as one examines leadership as a function of these hierarchical levels.

In focusing on the levels notion in these two different ways, we use Hunt's model (explicated in the next section) as a vehicle to examine what we consider to be three particularly important aspects of the changing leadership literature: leadership of and in organizations; grounded theory and mainstream perspectives; and processual and static analysis. To lower the model's degree of abstraction and enhance its applicability, we examine the above concerns within a case narrative emphasizing Roger Smith's recent nearly decade-long tenure as chair and CEO of General Motors. That examination ultimately leads to a series of propositions, two of which are analyzed in terms of levels-of-analysis theory (Klein, Dansereau, & Hall, 1994). Before explicating Hunt's model, let us consider the earlier mentioned aspects of the changing leadership literature in more detail.

THE CHANGING LEADERSHIP LITERATURE

Leadership of Organizations and Leadership in Organizations

Some years ago, Dubin (1979) contrasted the terms "leadership of organizations" and "leadership in organizations" in an insightful discussion. Leadership of organizations essentially focuses on leadership of the total organization and, thus, includes a much more comprehensive set of activities than does leadership in organizations. Leadership of organizations is similar to what some now term "strategic leadership;" it involves human actors in interaction with the organization as an entity. Leadership in organizations involves the kind of lower-organizational-level, face-to-face interactions that comprise more than 90 percent of the current leadership literature (Hunt, 1991; Phillips & Hunt, 1992). Of course, leadership at the top also involves some face-to-face interactions and sometimes leadership lower down involves strategic business units that may themselves function as complex, semi-autonomous "mini-organizations."

Even so, this "of and in" classification is useful in differentiating the literature. Hunt's model, which examines leadership up and down the organizational hierarchy, involves the complex relationships of both kinds of leadership operating together. As shown below, these complex relationships call for explicit treatment of levels-of-analysis theory (e.g., Klein et al., 1994) if accurate analysis is to be conducted. Thus, as previously indicated, Hunt's framework involves consideration of both multiple organizational levels and multiple levels of analysis and it is important to keep this duality in mind while moving through this article.

Grounded Theory and Mainstream Perspectives

In recent years, there has been considerable discussion of underlying ontological and epistemological assumptions as one considers the nature of reality in organizational research. Hunt (1991, ch. 4), among many others, discusses this issue and, while there are numerous important concerns, the main point for us is that there are multiple ways of conceiving of, and measuring, reality. Hunt's model allows for this and even advocates

such multiple approaches. Here, we are especially interested in contrasting a grounded theory with a mainstream perspective that tends to have a more rigorous and objectivist view of reality and its measurement (cf. Hunt, 1991).

Essentially, in grounded theory, one starts with something very concrete and contextual (such as the case narrative of Smith and GM), and then, based on questions that emerge as theoretically interesting, proceeds to describe and eventually reveal underlying explanations. These explanations are revealed by obtaining focused, additional, indepth data and moving back and forth between data and theory. Thus, one starts with some ideas of interest, develops some theoretical ideas, and ultimately generates theory as data are obtained (Glaser, 1992; Glaser & Strauss, 1967; Strauss, 1987). Whereas mainstream approaches tend to generalize across frequencies, grounded theory tends to generalize in the direction of theoretical ideas, thus emphasizing theory development rather than testing of a theory.

We also should note that there is a fundamental difference between grounded theory and mainstream analysis in terms of the knowledge of interest. Grounded theory aims at identifying processes of forces that give rise to activity, whereas mainstream organization analysis concentrates on identifying abstract elements and their relation to activity. In this sense, grounded theory emphasizes dynamism, whereas mainstream analysis emphasizes static structure.

In this article, we focus on a few components (labeled “elements”) and relationships outlined in the model developed by Hunt (1991), explicate the processual and level (hierarchical and levels-of-analysis) notions of the model, and move back and forth between mainstream and grounded theory in developing and discussing propositions based on these contrasting views. Also, as we shall show, our grounded theory perspective implicitly tends to include multiple levels of analysis. However, in comparing and contrasting grounded theory and mainstream views and the accompanying propositions, we use a levels-of-analysis perspective to make these explicit.

Processual and Static Analysis

Along with increasing discussion of the above aspects, there has been more-and-more emphasis on process (cf. Hunt & Ropo 1992, in press; Pettigrew, 1990; Ropo, 1989; Ropo & Hunt, 1994, in press). While it is possible to treat mainstream approaches processually, there is a heavy bias toward static, cross-sectional analysis or, at the most, comparative statics—where static relationships are compared with each other in some kind of longitudinal way (cf. Hunt, 1991). Although grounded theory is not always processual in nature, it lends itself to processual analysis quite readily (cf. Ropo, 1989). As we shall see, our combined grounded and mainstream analysis of the Smith/GM case also brings together a grounded theory processual perspective with a comparative statics approach across Smith’s tenure. Also we shall see the usefulness of grounded theory in revealing the way in which earlier history, as described in the Appendix, conditioned what later happened in GM.

In building process into our grounded theory approach, we borrow from, but change considerably, the notions of archetypes dealt with by Miller and Friesen (1984) and archetypes and tracks introduced by Greenwood and Hinings (1988). In describing organizations, Miller and Friesen developed the concept of archetype as a configuration

composed of tightly interdependent and mutually supportive elements such that the importance of each element can best be understood by making reference to the whole configuration. As an organization seeks to move from one archetype to another, one can describe it as following a track that shows how it changes as an interplay of its core elements across time (cf. Greenwood & Hinings, 1988). Thus, each element as such and the interplay of the elements across time form tracks in our description. What follows is a very general illustration of these notions, which we elaborate on later.

One can think of an influential manager, such as Roger Smith, as having an overall conception or archetype of the way he or she sees various elements of the organization—including structure, management, culture, and so forth—coming together in support of a given vision or strategy. These elements form an overall pattern or configuration. Across time, each of them moves together as a track of varying intensity. Periodically, there are internal or external shocks to the system caused either by outside forces or by forces over which the manager has more or less control. Thus, an overall track develops as an interplay of the elements across time.

The manager has in mind a current archetype and the kind of future archetype which he or she believes desirable to move the organization ahead to forward the strategy/vision. The element tracks tend to move in concert except when the various shocks disturb the relationships among them and change the archetype. If the archetype is consistent with that desired, there are efforts to maintain the relationships among the tracks across time. However, the track elements may not be moving toward the desired archetype or the shocks may jolt the tracks toward a less desirable archetype. The grounded theory, which we describe shortly, essentially follows this process involving archetypes and tracks as GM deals with second-order changes (variation within a system that changes the system itself; cf. Levy & Merry, 1986) during Roger Smith's tenure.

Note that this approach, using archetypes and tracks, conveys a holistic pattern of configurations of what we have termed elements. Consistent with our earlier discussion, we describe these as a kind of gestalt where one cannot refer to one element without considering the entire configuration. This is in contrast to a mainstream perspective which uses variables and tends to treat each separately and abstract them from their context. This statement is generally true even for multivariate approaches (cf. Hunt, 1991).

In light of the above discussion of the key points of the article, we next provide a very general discussion of Hunt's model. We then give a narrative but focused description of the Smith/GM case (GM's historical backdrop is summarized in the Appendix). The case study and Appendix together (supplemented, as necessary, with a small amount of additional information) provide the "raw data" for both our grounded theory and mainstream applications. In the archetypes and tracks used for grounded theory, we utilize the descriptive data, analytically. In the mainstream approach, we abstract some of the ideas in the case, along with previous literature and deductive analysis brought together in the form of illustrative propositions. Two selected propositions then serve as the base for an application of levels-of-analysis theory (Klein et al., 1994). We conclude with a short summary and discussion and a number of implications.

HUNT'S EXTENDED MULTIPLE-ORGANIZATIONAL-LEVEL MODEL

Hunt's (1991) model and later work by Phillips and Hunt (1992), involve extensive and systematic extensions of earlier work on stratified systems theory by Elliott Jaques and Owen Jacobs and their associates (see, e.g., Jacobs & Jaques, 1987; Jaques & Clement, 1991). Consistent with stratified systems theory, Hunt's model argues, first, that there are critical tasks that must be performed by leaders if an organization is to perform effectively. Because of an assumed increasingly complex setting as one moves higher in an organization, these critical tasks become increasingly complex and qualitatively different.

The complexity of the tasks can be measured in more than one way. However, a particularly important way, for present purposes, is in terms of time span—the maximum allowed completion time of the longest tasks, assignments, projects, or programs for which an individual (or, sometimes, a team) in question is held accountable. Such time spans range from up to three months for employees at the very bottom of the organization to 20 years or more at the top. The extended model assumes that the critical tasks can be divided by organizational levels within three domains. The bottom domain is labeled “direct or production;” the middle domain is called “organizational,” and the top domain is labeled “systems or strategic.”

The number of levels encompassing critical tasks within the domains is argued to vary as a function of the organization's size, the time spans, and the requirement that each level add value to both its higher and its next-lower level. The model argues that generally, even for the largest organizations, the number of levels probably should not exceed seven, from the employee-level to the very top. For a large, complex organization, then, there would be: (1) an employee and two leadership levels in the production domain (with time spans from up-to-three months to one-to-two years); (2) two leadership levels (two-to-five years and five-to-ten years, respectively) in the organizational domain; and (3) two leadership levels in the strategic domain (10-20 years and more-than-20 years, respectively). As we shall see, the model's seven levels add up to only half the 14 levels that existed at GM when Roger Smith became chair.

Again, consistent with stratified systems theory, Hunt's extended model also assumes that accompanying the increasing task complexity by organizational level, there must be an increasing level of leader cognitive capacity (bearing little or no relationship to traditional intelligence; see Lewis & Jacobs, 1992). Consistent with requisite variety notions (Ashby, 1952), there should be a rough match between leader cognitive complexity and critical task complexity at each organizational level. Then, going beyond stratified systems theory, the extended model also assumes that there is an accompanying leader behavioral complexity notion comprised of leader behaviors or skills. This notion was hinted at in Hunt (1991) but has been made more explicit in the work of Hoojiberg (1992) and in a similar idea discussed by Boal and Whitehead (1992). Hunt's model also includes leader background, predisposition, and values preferences, as well as organization culture or climate and subculture, and various aspects of organizational and subunit effectiveness. Finally, the organization is considered to be embedded within external environment and societal culture aspects.

ROGER SMITH'S TENURE AT GM: THE CASE NARRATIVE

Roger Smith was in office for virtually a decade, from January 1981 until his 65th birthday in August 1990. After his first years in office, there was generally a rising economy, the longest period of uninterrupted growth since the 1960s (Lee, 1989). The Reagan/Bush administration was pro-industry, and the deregulated economy encouraged low interest rates and capital formation, accompanied by minimal inflation. While there was increasing competition, the key competition from the Japanese was lessened by import quotas and cooperation in the devaluation of the dollar.

Smith had a rubber-stamp board of directors and billions of dollars available from the corporate coffers. Additionally, he had all of General Motors' other assets available to him. There were more than twice the scientific and engineering resources of any other manufacturing firm. Thus, he had time, money, human and technological resources, and the power of the chair to make his impact felt (Lee, 1989).

Smith had been Thomas Murphy's heir-apparent; he ascended to board chair and CEO from the position of executive vice president, where he had been since Murphy's rise to chair and CEO in 1974. Smith had spent virtually his entire career in various aspects of finance and reinforced his previous reputation for handling difficult and complex problems by boldly selling off some underperforming divisions. He was paired with F. James McDonald, who was president of the operations side of GM (a "car guy").

In addition to Smith and McDonald, there was a change in 12 of GM's 15 top-level executives (Lee, 1989). Although Sloan's system encouraged the chair and president to function as a team, along with the other members of top management (see Appendix), Smith essentially operated as a "one-man show"—using the others and the board primarily to rubber stamp his decisions (Keller, 1989; Lee, 1989). Smith's being in charge carried over even to such details as the assignment of secretaries to individual subordinate managers.

In many ways, Smith personified the typical GM chair from the finance side. He had been nurtured in an elite system, where the few at the top make the decisions for the many at the bottom and managers below support their supervisors with little or no challenge. He differed from most GM executives, however, in that he believed strongly in strategic planning, having implemented some steps toward it despite little support before his promotion. Furthermore, he was determined to implement a futuristic high-tech vision after his ascension (Keller, 1989).

When Smith took over, GM was coming off the 1980 \$¼ billion loss (see Appendix) and was in the midst of a major new product and new investment program. In April of 1981, the media began to report problems with the new X-car front-wheel-drive vehicles released shortly before Smith took over. Murphy had also authorized the futuristic Cadillac Hamtramck plant, which was to cause GM great difficulty later on. Finally, the series of small J-cars—the Chevrolet Cavalier and its siblings for the other divisions—were far along the development path. Cars within the X and J series, following in the footsteps of increasing "badge engineering" (essentially, the same cars marketed by different divisions under separate "badges;" see Appendix), looked and felt so much alike that they caused many dealers to take on other lines to give them the necessary variety. These lines most often were foreign, so this helped to entrench foreign competition more firmly.

In interviews shortly before his ascension, Smith suggested that his tenure would be pretty much business as usual—there would be few changes. Shortly after assuming office, however, he expressed his vision of the 21st-century corporation to be created during the decade of the 1980s—his tenure as chair and CEO. This would be the first all-electronic manufacturing organization. There would be a high-tech elite, paperless processes, and “lights out” plants (so titled because they are peopleless and lights are not needed). Smith would create this 21st-century organization through the use of GM’s human resources and by committing almost \$80 billion for high-technology equipment and acquiring firms with high-tech and computer expertise. In his eyes, he had a decade to literally remake General Motors. The impetus for his remaking of GM was not only Smith’s desire to leave his mark but also the threat of world competition. When Smith was named chair in 1980 (to take office in 1981), the United States was engulfed in a recession and awash in an ever-increasing tide of imports. In 1980, Japan became a larger-volume automobile producer than the United States.

Had Smith done only what he initially said, he would still have faced major challenges because of commitments made by Murphy in the mid-1970s. The X- and J-cars were all new, and facilities for their manufacture were being planned. However, instead of using state-of-the-art technologies for the plants, Smith was determined to leapfrog current technologies and move from Toffler’s “third-wave” organizations to “fourth-wave” organizations (Toffler, 1981), or lights out factories.

During 1981, Smith’s first year in office, the J-cars were launched, having faced badge engineering and quality problems as well as being underpowered and causing consumer “sticker shock” reactions. These difficulties followed close on the heels of massive X-car recalls for faulty brakes, transmissions, and other components.

Also, during Smith’s first year, it became increasingly apparent that GM’s S-car, scheduled for 1985 release and designed to be its entry-level small car, could not be built cost-effectively (there was a nearly \$3,000 per-car cost disadvantage). Smith canceled the project and started joint venture negotiations with the Japanese to provide small cars under a GM nameplate. This action led to a line of vehicles marketed by Chevrolet. It also led in 1983 to the New United Motor Manufacturing, Inc. (NUMMI) joint venture with Toyota. NUMMI took over a former trouble-laden and unprofitable GM plant in Fremont, California, that ultimately became a showplace for GM. NUMMI initially produced Chevrolet Novas and the Geo Prizm line.

Smith viewed these relations with the Japanese as short-term measures until GM could develop the Saturn project. Saturn was to be an all-new corporation epitomizing Smith’s 21st-century corporation vision. With its ultra-high, fourth-wave technology, the vision was to both build the highest-quality entry-level car in the world and be cost competitive. Smith announced the development of the Saturn corporation in late 1983. Its roots were the advanced engineering groups that had been working on the disbanded S-car project.

Other important early high-tech projects involved: first, a demonstration project established in 1982 that led ultimately to the ultra-high-technology Saginaw Vanguard plant. Second, \$6 billion was invested in 1983 in the Lake Orion and Wentzville plants, then the most highly automated plants in the industry. Third, there was the groundbreaking for a joint-venture robotics headquarters and the announcement of a major developmental facility in Michigan. Finally, Buick City bowed in the press

and was noted especially for its just-in-time inventory concept, borrowed from the Japanese, with clusters of suppliers close by.

In 1984, Smith spent \$9 billion more on new technology. The Hamtramck Cadillac plant, initiated under Murphy, began a slow and very troubled startup. It was a next-generation technology plant. The Saturn project now formally became the Saturn Corporation with a commitment to spend \$5 billion to create the new nameplate.

Also in 1984, two landmark events for GM were initiated. The first involved reorganization of the five car divisions, Fisher Body, and General Motors Assembly Division (GMAD) into two groups—a small-car Chevrolet, Pontiac, and GM Canada group (CPC) and a large-car Buick, Oldsmobile, and Cadillac group (BOC). The reorganization was roughly the same as creating two Ford motor companies (Lee, 1989) and was primarily the brainchild and responsibility of GM president McDonald.

The second event involved the purchase of the Electronic Data Systems (EDS) firm. It was to handle GM's \$2 billion-a-year data processing. Additionally, Smith wanted EDS, and especially its founder Ross Perot, to shake up the GM culture and make it more entrepreneurial. One observer likened the event to trying to put the Marines into the Social Security bureaucracy (cited in Lee, 1989, p. 162).

In 1985, \$10 billion was allocated for the year in capital expenditures for plant modernizations and new technologies. Smith also purchased Hughes Aircraft, the military electronics and satellite firm, for \$5 billion. It was then merged with a couple of other GM accessory divisions to form an advanced electronics subsidiary. Along with this, Smith purchased some mortgage companies to utilize GM's vastly increased data processing capabilities and founded a joint venture with Volvo to build and market medium and heavy trucks.

The previous activities, while all a logical part of Smith's strategic plan, caused internal chaos among the firm's managers and white-collar and blue-collar employees. One observer argues that "confusion" was the best overall description of GM from 1983-85 (Lee, 1989, p. 119). As of 1986, some \$45 billion had been spent on the automobile business since 1980 and nearly \$35 billion more in spending was projected for 1986-89. Besides confusion and chaos, the extensive investment and other activities led to a rise in the corporation's break-even point by some 30% from 1980. In fact, by 1986, which was a boom year for the economy, GM's high-tech spending had put it in a cash bind.

The corporation did report a profit for 1986, but only after taking into account currency reevaluations, record General Motors Acceptance Corporation earnings, and investment tax credits (Keller, 1989). This reported profit, in terms of net income as a percentage of sales and revenues, was only about half of Ford's and less than half of Chrysler's (Lee, 1989, 297). The magnitude of the firm's earnings reflected the fact that fewer people were buying the look-alike vehicles whose quality had only gotten worse even with Smith's ultra-high-tech emphasis. Indeed, in many cases, the high-tech robots created additional quality problems and, in at least one instance, killed a worker (Lee, 1989).

In December 1986, Smith was finally forced to give up on Saturn as an automated marvel producing a cost-effective entry-level car. Saturn then evolved into a firm making a larger and more expensive car, using state-of-the-art work systems, with an emphasis on the interface between people and current, but not futuristic, technology. Even with

all this, Smith continued to push his futuristic vision. He still continued to believe that the biggest single reason for the U.S. auto industry's competitive difficulties was overpaid workers who could be replaced by robots.

From 1986 through the end of Smith's tenure in 1990, a number of events occurred, most of which were set off by the activities above. In December 1986, GM paid some \$¾ billion to buy out Perot who had been a thorn in GM's side because of his gadfly activities. Perot's EDS also was causing severe problems in terms of integration with GM. Smith's intent for EDS to shake up the GM culture led to a very severe culture clash.

Meanwhile, NUMMI was getting better and better without using high-tech equipment and with an emphasis on work teams. Indeed, it turned out the highest quality cars in the corporation. GM's managers continued to look for NUMMI's secret, but its smooth integration of workers and technology largely eluded them. They were not able to duplicate its success simply by setting up work teams in other plants. The reoriented Saturn, with many ideas borrowed from NUMMI and with a brand new plant, was a similar success story in terms of its cars. The first of these came off the line in 1990 with Smith at the wheel. Even though it turned out that the cars sold well and received high marks from the public, the investment was so large that there was a question as to whether Saturn would be able to turn an adequate profit in the foreseeable future. Furthermore, Saturn was so different from the rest of GM, and so long getting started, that there were questions about its transfer of learning to the rest of the corporation.

The reorganization caused extreme chaos, even though reorganization in some form was badly needed because of the movement over time toward extreme centralization and bureaucratization, reinforced by such forces as the high-technology movement. As implemented, the reorganization essentially disconnected the top from the bottom of the organization and disrupted the informal networks and human resource systems of middle management (Keller, 1989; Osborn, personal communication, October 1993). Indeed, this disconnection caused Smith to rail against "the frozen middle," much as he did against the "overpaid workers."

Over the years, the networks had become increasingly important as it became more and more difficult to get things accomplished by following the increasingly bureaucratic formal organization (see Appendix). That organization ultimately consisted of some 14 hierarchical levels at the time of Smith's ascension (Lee, 1989). GM management development had depended heavily on boss-subordinate relations, and these were disrupted in the dismantling of the Fisher Body and General Motors Assembly Division. Along with this, the subcultures of each division were disrupted. In some cases, such as Buick, there were several generations of employees who had always worked for the division in question. Fisher Body had perhaps the strongest subculture, and its managers and workers were extremely upset as it was dismantled and its functions moved into the Chevrolet, Pontiac, GM Canada, Buick, Oldsmobile, and Cadillac groups.

While the original design called for CPC to be the "small car" division and BOC to be the "large car" division, as it turned out, both small and large cars were made in both divisions. Furthermore, while the intent was to decentralize the decision making, what actually happened was that the group executives in charge of each of the two divisions added an additional level of bureaucracy to the 14 layers already in place.

Rather than decreasing the number of employees the new divisions actually ended up hiring more to deal with transitional activities (Lee, 1989).

The smaller BOC division appeared to be much more responsive to the change than its larger CPC counterpart. Indeed, during the period from 1986-90, Buick began to win quality awards. While size may have played a role in such responsiveness, the group executives implemented the changes much differently and there was much more participation in BOC. In general, knowledgeable observers claim that many of the reorganization difficulties that went on during this period and earlier were caused by inadequate implementation procedures (Keller, 1989; Lee, 1989; Osborn, personal communication, October 1993). Even with all this reorganization, the upper-level headquarters and support staff was left untouched. This proved to be a serious omission in terms of a more responsive new organization.

After the Perot buyout in 1986, the institutional stockholders put pressure on Smith to "clean up his act." He then established a series of extreme measures to cut costs \$10 billion between January 1987 and 1990. This cost cutting forced Smith to drastically step up plant closings and to recognize a permanent decline in market share which ultimately sank to about 34% in 1990. At the same time, Smith was promising investors an increase in return on investment to 16% by 1990. There was a sharp split in the top-management executive committee over giving up market share. However, Smith proceeded anyway, one observer arguing that Smith probably was unaware of the split (Lee, 1989, p. 267). Furthermore, Lee argued that morale inside GM had never been lower (p. 271).

Finally, McDonald, the president, due to retire in 1987, who had been pushing quality with mixed success, essentially gave up trying to move Smith to take steps in the direction of increasing quality and enhancing morale. Even with all these negative events, Smith who had earlier had a reputation among some as a "financial genius" (Osborn, personal communication, October 1993), was able, through creative accounting, to report record earnings for 1988. Without such creativity, the "record earnings" would have been only 60% of those of the previous high year of 1984 (Keller, 1989).

Also, during 1988, there were a number of people-oriented projects among managers lower in the organization that showed promise of ultimately changing GM's culture, if they could get the necessary support. However, they failed to win top-management support and what little impact they had had was largely gone by the end of Smith's tenure in 1990 (Lee, 1989).

ANALYSIS OF THE GM CASE NARRATIVE

The earlier sections of this article developed its general direction, took a cursory look at Hunt's model, and described a case narrative focusing on key aspects of GM's history (reinforced by the Appendix) and Roger Smith's nearly decade-long tenure as CEO. This section builds on that treatment by emphasizing the following:

1. A major research theme or problem suggested by the case that is important and interesting and allows innovative application of Hunt's model;
2. Explication of the model and some key elements in terms of the underlying theme;

3. Analysis of GM leadership and change across time in terms of 1 and 2 above, using both grounded theory and mainstream perspectives;
4. Derivation of illustrative propositions based on 1, 2 and 3 above; and
5. Application of a levels-of-analysis framework to two of these illustrative propositions to show the usefulness of such a framework in dealing with the above items.

Research Theme and Research Question

The theme on which we have chosen to focus is: Given that Roger Smith and the GM corporation were in a unique position to be successful, with their immense resources and long experience in the automobile industry, through what kind of processes did Smith and the corporation fail in their efforts to get reorganized and perform well? Stated in this way, the theme might be interpreted by some as reflecting a normative bias on our part. Suffice it to say that our discussion in this section would be equally applicable even if the theme were stated less normatively or even vice versa—that is, why did Smith/GM succeed? This theme, regardless of how it is stated, allows us to focus on the underlying research question: How do top-level philosophies, actions, and events impact and interact with selected aspects deeper within the organization?

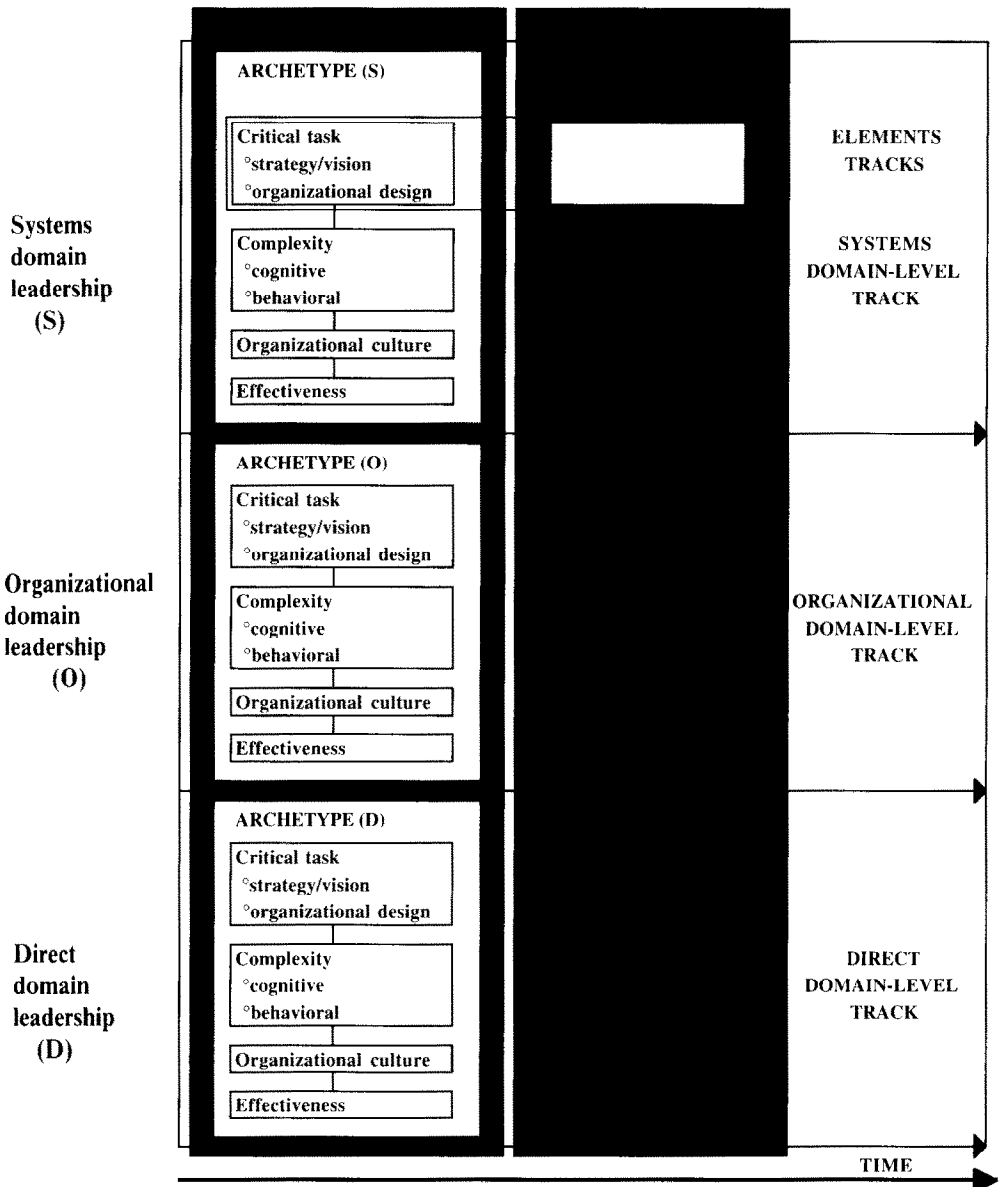
Essentially, this is not unlike a question addressed many years ago by Hunt, Osborn, and Larson (1975). They were concerned with the impact of top-level philosophy or orientation toward mental health care on the impact of leader behaviors of those deeper within the organization. We next focus on an updated version of this question using currently developed approaches and concepts rather than those of the 1960s and 1970s.

Explication of the Model and Some Key Elements

Figure 1 is a schematic framework, based on selected components of Hunt's model with special emphasis on process and domains. We use the schematic to analyze selected aspects of General Motors and Roger Smith's tenure. Based on the earlier narrative case description, we derived three key time periods during Smith's tenure and applied the model across the periods. The breakpoints were arbitrary, based on one or more major events that seemed to change the nature of the organization. As a prelude to the analysis, we briefly develop relevant aspects of the framework.

Figure 1 shows critical managerial tasks (e.g., strategy and organizational design), cognitive and behavioral complexity, organizational culture, and organizational effectiveness in the systems domain, together with equivalents in lower domains. (For simplicity, we use domains rather than hierarchical levels.) These aspects are considered as elements of our organizing framework. Following our earlier discussion and to set the stage for our grounded theory treatment, these elements are shown in Figure 1 as tracks and archetypes. As previously indicated, the tracks may be seen as historical paths, as suggested by Greenwood and Hinings (1993, p. 1071) and Hinings and Greenwood (1988). As shown in the figure, we suggest three types of tracks.

First, there are tracks for each element, to show how, for example, Roger Smith's critical tasks changed across time. Second, there are tracks linking archetypes in each hierarchical domain across time. Each archetype consists of a configuration of the elements. The interplay of each element's tracks forms this domain-level track. We use



Source: Based on selected components from Hunt's (1991) model.

Figure 1. Schematic Framework for Multi-Level Processual Leadership

the term interplay to indicate that the elements have a varying intensity of dynamism across time in influencing the nature and direction of the domain-level track. For example, we might be interested in finding out how the GM board culture, Roger Smith's strategic vision, and his cognitive and/or behavioral complexity are interrelated and how these relationships change across Smith's tenure (systems-domain track). Finally, there is an overall track linking archetypes across domains and time. This track would provide an overall description of the interplay of the suggested elements across domains as well as across time. This is a holistic description of leadership in the context of organizational change emphasizing a processual perspective. In GM's case, this ultimate picture would provide a suggestion of what happened and through what kind of processes. Needless to say, such an overall track would require a vast amount of systematic historical data from all domains and careful systematic analysis, as discussed below.

The archetypes are built into the notion of tracks (Greenwood & Hinings, 1988). As indicated earlier, an archetype is made up of configurative relationships, among the suggested elements (cf. Miller & Friesen, 1980, 1984). Figure 1 suggests two kinds of archetypes.

First is an archetype within each hierarchical domain—S, O, and D, respectively. For example, we might be interested in finding out how Smith's vision of reorganizing GM influences and is influenced by board member cognitive and/or behavioral complexity and board culture. One might be interested in examining some interesting reinforcing and countervailing relationships.

Second, there is an archetype across hierarchical domains (overall archetype). Such archetypes would involve configurations across domains in addition to the domain-level configuration of the elements. Here we should note that the relationships would be, on one hand, direct or indirect (operating through mediating aspects), and on the other hand, they would comprise individual, group, or any higher-level entity as treated in the later levels-of-analysis portion of this article. For example, we might be basically interested in finding out how systems-domain leadership (a configuration of the critical task, cognitive, and behavioral complexity of Roger Smith and other executives with the organizational culture) influences leadership in lower domains. It may turn out that the collective systems-domain leadership has an indirect impact on, say, plant manager critical tasks through some specific financial or operational constraints. Also, as we show shortly, division subcultures, such as Buick, with informal person-to-person networks may play a major role in reinforcing or counteracting top-level leadership efforts.

We next describe each of the elements in more detail, together with a few examples of how to operationalize them, without necessarily using all of these ways in our later illustrative analysis.

Critical Tasks: Strategy and Organizational Design

Figure 1 shows strategy/vision, organizational design, and their lower-domain counterparts to be key aspects of the critical task element of Hunt's model. There are many ways to conceptualize and measure these as discussed in Hunt (1991). Frequently, strategy has been conceptualized as the means/ends package of the organization (Hunt, 1991). Mintzberg (1984), among others, has a less linear notion of strategy processes. Here, we simplify and express strategy primarily in terms of Smith's vision.

Organizational design typically first entails an overall configurational notion (tall, flat, and the like), as illustrated in some of Mintzberg's writings (e.g., Mintzberg, 1979). Second, it entails various mixes of dimensions such as size, formalization, and centralization. The literature argues that there should be consistency between the organization's strategy and its structure (e.g., Chandler, 1962). As shown below, this notion of consistency (or inconsistency) was a recurring problem in GM's reorganization and acquisition efforts.

Complexity

Cognitive complexity has been conceptualized and measured in different ways (for short but comprehensive summaries, see Hunt, 1991; Phillips & Hunt, 1992). Frequently, it is conceptualized in terms of the processes of differentiation and integration of cognitive elements. Essentially, cognitively complex individuals are able both to differentiate and integrate more elements than are less complex persons. That is, cognitively complex people interpret situations in terms of a relatively large number of cognitive elements and then are able to tie them together.

Jaques (1989) considers cognitive complexity in terms of mental processes used to take information; pick it over; play with it; analyze it; put it back together; reorganize it; judge and reason with it; make conclusions, plans, and decisions; and take action. He then uses the term "cognitive power" to describe the scale and complexity of the world that individuals are able to pattern and construe, including the amount and complexity of information that must be processed in doing so (Jaques, 1989, p. 33). One way in which Jaques measures cognitive power is in terms of a person's time horizon (the maximum time span at which one is capable of working at a given point in his or her life, or the person's "working capacity"). He has developed an empirical framework that shows such cognitive power as extending 50 years or more into the future for some individuals.

A related notion of cognitive complexity or capacity, expressed in terms of the sophistication of an individual's organizing processes, is reported in Jaques and Clement (1991) and Lewis and Jacobs (1992). A key point in any of these conceptualizations and measurements of cognitive complexity, cognitive power, or cognitive capacity is that simple paper-and-pencil questionnaires are considered inadequate. They must be measured in context, which typically involves specialized test/interview sessions or the use of speeches or written documents to derive complexity (see Hunt, 1991; Suedfeld & Tetlock, 1990).

Based on Hunt's model, we have argued for a combination of cognitive and behavioral complexity where behavioral complexity may be thought of as, "the ability to perform the multiple roles and behaviors that circumscribe the requisite variety implied by an organization and environmental context" (Denison, Hooijberg, & Quinn, in press). Denison and associates consider cognitive complexity to be a necessary but not sufficient condition for behavioral complexity. However, Boal and Whitehead (1992) using a "behavioral flexibility" notion very similar to the behavioral complexity concept just described, treat the cognitive and behavioral aspects orthogonally. Thus, while both aspects might be high, we can consider a four-celled matrix and think of, say, a salesperson or a sales manager with a broad repertoire of behaviors who is not really very cognitively complex. While this is a yet-to-be-resolved empirical question, we assume that the two aspects of complexity are indeed orthogonal.

Regardless of whether orthogonal or not, recent work has focused on conceptualization and measurement of such behavioral complexity. This work uses Quinn's (1988) competing values framework as a base. That framework places eight leadership roles within four quadrants based on a bipolar flexibility/control vertical axis and an internal focus/external focus horizontal axis. In the upper left quadrant (I) are two roles representing a people-oriented leadership function. In the upper right quadrant (II), the two roles represent the adaptive leadership function. The stability leadership function is represented by the lower left quadrant roles (III), and the task leadership roles are represented in the lower right quadrant (IV). While these roles are not the only ones that could be used, they represent a large spectrum of leadership behaviors and are conceptually similar to the work of a number of other leadership scholars (see Hunt, 1991).

Like cognitive complexity, one way of representing behavioral complexity is in terms of differentiation and integration. Hooijberg (1992, p. 18) defines behavioral differentiation, "as the ability of a [leader] to perform multiple leadership functions and to perform these leadership functions differently (more adaptively, more flexibly, more appropriately, more individualized and situation specific) depending on the role relationship he/she has with [a given party, task, geographical location, time period, team composition, etc.]." He argues that behavioral integration essentially means that leaders are able to perform multiple leadership functions to a high degree. So, what we have are leaders able to vary their behavior as a function of a given role set and to perform such multiple leadership functions to a high degree in their interaction with the various role sets or situations mentioned above.

Hooijberg showed integration (perception of the use of people, adaptive, stability, and task functions) to be strongly related to subordinates', peers', and superiors' ratings of the leaders' performance. He found partial support for the differentiation notion. Related studies have found some support for the argument that overall behavioral complexity is positively related to later performance (see, e.g., Denison et al., in press). Support such as this is consistent with Ashby's notion of requisite variety as set forth in Hunt's (1991) model.

Organizational Culture

There is now an extensive, controversial, and rapidly growing literature covering organizational culture (cf. Hunt, 1991; Kotter & Heskett, 1992; Martin, 1991; Schneider, 1990; Trice & Beyer, 1993). For our purposes, we assume the following from the literature covered in the citations above:

1. Culture is multilayered with artifacts at the most visible layer, shared values and beliefs at the next layer, and shared basic assumptions at the deepest layer.
2. A differentiated approach that recognizes the possibility of both an overarching organizational culture and numerous subcultures is a useful way to deal with culture.
3. Related to the above assumption, culture can be conceptualized in terms of such dimensions as intensity (extent to which members of a unit agree as to various aspects of the cultural content of the unit) or integration (degree to which units share a common culture) (see Cameron & Freeman, 1991; Rousseau, 1990).

4. Questionnaire measures of culture can be used to get at the outer two layers, if the questionnaires are tailored to the organization and subunits in question (see Hunt, 1991).

Effectiveness

The final element of Hunt's model that we consider is organizational and subsystem effectiveness. The model argues that these effectiveness measures should be tailored to the organization or subsystem in question. It also recognizes four general conceptualizations in the literature (see Hunt, 1991, pp. 91-96). Here, we touch on some explicit or implicit measures in the case narrative that are largely consistent with other work attempting to link organizational culture or design to outcomes (cf. Kotter & Heskett, 1992).

In the GM case, some financial and market-oriented measures that seem to be important are: net income/sales, common stock price, earnings/share, net income, return on investment, and market share. The most comprehensive way to deal with these measures would be to follow them periodically across Smith's tenure. The case narrative does not provide data to systematically do that. What we have, instead, are selected aspects of these measures that provide their essence during his tenure. These primarily represent what the literature terms a systems perspective (cf. Hunt, 1991) involving various forms of outputs/inputs, transformations/outputs, and the like.

They also reflect some aspects of a strategic constituencies perspective in that they represent some of these constituents (e.g., stockholders, investment brokers). They do not reflect such human resource maintenance outcomes (Hunt, 1991) as employee satisfaction, morale, turnover, and absenteeism. This latter outcome category was not mentioned systematically in the case, although there was some discussion of morale. At the same time, the measures do not directly reflect some intermediate measures such as break-even point and quality, which loomed large during Smith's tenure. Some of these outcomes (e.g., market share) also would have lower-domain analogues.

Grounded Theory and Mainstream Applications Across Time

Here, we use the case information from the narrative and the Appendix, occasionally supplemented by additional information, to examine Roger Smith's tenure at GM across time. We utilize the time periods and a simplified illustration of the track and archetype notions previously discussed, along with the elements from Hunt's model. Our analysis and the later illustrative propositions move back and forth between a grounded theory perspective and a mainstream perspective.

Our earlier discussion briefly mentioned three kinds of tracks and two kinds of archetypes (summarized in the Figure 1 schematic) that could be used in a comprehensive grounded theory analysis where appropriate data were available. Such data would show intensities in activities across time for each of the elements comprising the track as it connected archetypes across domains at the three key turning points mentioned earlier and would provide the processual dynamics we have emphasized.

Here, for illustrative purposes and because the data are limited, we outline an overall track and follow that with three overall summary periodic archetypes representing the turning points. The overall track outline covers the period from 1981 to the end of

Smith's tenure in 1990 and is based on the interplay of the elements. Thus, the track outline, based on the limited data available, is intended to provide the essence of the track notion so important in our grounded theory perspective.

Outline of an Overall GM Leadership Track from 1981-1990

In terms of *complexity*, we have no direct measure of the cognitive aspect of this element for Roger Smith. His espoused 21st-century vision suggests that he might well be cognitively complex, and it certainly seems consistent with the time span thrust of Hunt's model. The case also indicates that some have called him a financial genius (which would suggest complexity at least in that specific area). Also, his movement to the top in a complex corporation such as GM would suggest that he might well have been cognitively complex; the case tells us that he was promoted because of his ability to handle difficult and complex problems in this complex organization.

On the other hand, the case suggests that he did not pay much attention to the lower hierarchical domains, suggesting some deficiency in conceptualizing the corporation as a whole. This became obvious when he started the major reorganization and faced major problems in GM divisions and plants. Less cognitive complexity (or, perhaps, flexibility) also may be indicated by his persistence in sticking to his high-tech vision even in his last days at GM when it was obvious to virtually everyone but him that the vision was not successful.

In contrast to cognitive complexity, the case description seems quite clear that Roger Smith was not behaviorally very complex. While literature relating to the case suggests that his behavior was different at home than at work (Lee, 1989), basically his work behavior seems quite limited. We infer from the case that Smith essentially was elitist, an arrogant leader who ran a one-person show and did not tolerate opposition. For us, this inference from the case suggests that he behaved essentially individualistically, nonresponsively, or negatively toward workers and, especially, toward union representatives. His behaviors mostly seem to fall in Quinn's task (IV) and adaptiveness (II) quadrants, which are largely restricted to productivity and change and do not emphasize supportive aspects. However, in terms of trying to remake GM, even Smith's adaptiveness (in terms of reorganization, high-tech vision, etc.) led to instability rather than appropriate change. This suggests that he had little conception of how to implement his sweeping 21st-century vision.

Based on the above mainstream perspective, we assess Smith as most likely being high on cognitive complexity and low (almost one-dimensional) on behavioral complexity. A grounded theorist, on the other hand, would take a closer look at Smith's cognitive schema and behavior on some specific issues involved with critical tasks. The issue of complexity appears too general and abstract to be theoretically interesting for grounded theory development. More useful in that sense would be a description of the mapping of Roger Smith's actual perceptions, what his rationale was on different issues, and how he finally went about implementing his grand vision (cf. Huff, 1990).

It is quite possible that there were different cognitive as well as behavioral patterns that he applied, consciously or unconsciously, to different issues and across time. For example, toward the end of the decade, to everyone's surprise, Smith started to emphasize team work and to launch new, quality network programs and leadership. Even though the case tells us he did not provide sustained support of these, nevertheless,

these moves suggest some possible variation in his complexity repertoire across both issues and time. Mainstream research would assess his complexity across a number of issues across time, typically without studying how such complexity might vary across issues.

The case provides virtually no information on the other executives in Smith's systems domain or in the organization domain. Our assumption is that most potential leadership behavior differences have been selected out by the unifying GM culture but that there are differences in cognitive complexity. However, we assume that there are few, if any, executives with low cognitive complexity. Thus, across Smith's management team, we assume a limited behavioral repertoire, accompanied by a range of cognitive complexity. However, Smith's individualistic behavior effectively precludes adequate utilization of the available complexity.

We also assume much the same of those in the organization domain with narrow ranges of behavior and some with complexity appropriate for the complexity demands of their domain and others with lower-complexity levels. Collectively, however, we assume a relatively high level of complexity in both the systems and organization domains. Here again, a grounded theorist would focus more on the context. The theorist would describe the cognitive and behavioral aspects related to some concrete tasks or events from the perspective of a specific domain and try to make sense of the dynamism between the domains in terms of cognitive and behavioral differences.

Critical Tasks: Strategy and Organizational Design

Essentially, the case narrative tells us that GM's strategy was traditionally very conservative; it depended heavily on economies of scale, the maintenance of dominant market share, and the assumption of overwhelming resources, especially financial ones, and was essentially inward looking and self-contained. There was basically no formal strategic planning until Roger Smith began to institute one even before his tenure, and then, the case tells us, it met with little formal support within the corporation. The assumption within GM seems to have been that the company was so dominant and its finances so strong that it could compete very much as it always had.

When Smith took over, this view was beginning to be questioned. However, the literature on which the case was based argued that the dominant view was still that Japanese competition, fuel shortages, and the like were temporary aberrations that would go away and leave GM functioning much as before. To Smith's credit, he did not feel this way. He was an anomaly—steeped in the elitist, arrogant, risk-averse GM culture but holding a truly revolutionary vision of an ultra high-tech, 21st-century corporation, new from virtually the ground up.

Furthermore, Smith articulated and began to act on this vision even before he formally assumed his position as chair. Unfortunately, as became clear later, the corporation was not ready for his vision and he did not know how to communicate it and get it acted upon through all the hierarchical levels of GM or even among his fellow executives.

In terms of organization design (see Appendix), over the years, Sloan's centralized policy and financing and decentralized operations had been gradually subverted. There was increasing size, centralization, formalization, and an overall stultifying bureaucratization that effectively failed to synchronize automotive design, engineering,

and manufacturing. The lack of synchronization led to delays in critical decision making and implementation with increasingly long lead times in getting new models to market. It was clear to Smith when he took over, if not before, that the current organization design was no longer adequate.

Smith's reorganizational efforts were fundamental in terms of both depth and coverage throughout the corporation. Even more fundamental, the major structural changes happened either in quick succession or simultaneously. Launching Saturn as a new-concept factory after forming NUMMI, the innovative partnership with Toyota; acquiring high-technology Hughes and EDS; and breaking up the traditional GM divisions represent the strategic and structural changes at GM during Smith's era.

Organizational Culture

The case does not provide systematic data on GM's culture. However, the term is used frequently in the literature from which our case narrative was derived. The GM culture is seen as "strong" by some observers (e.g., Kotter & Heskett, 1992). That is, there is a perception that there is a well understood overriding culture. This could also be described as integrated and intense, to use the terminology mentioned earlier. At the same time, the case tells us that there are distinct subcultures—for example, in Fisher Body and Buick, and we assume in the other automotive divisions as well.

A loose but typical description of the overall GM culture, as partly indicated earlier, might be financially dominated, elitist, arrogant, risk averse, loyalty valuing, longevity valuing, individualistic, indecisive, inward looking, and anti-union, with devaluation of blue-collar workers in general and, overall, a strong reinforcement of the "not invented here" syndrome. Keller (1993, p. 9) uses the terms "14th floor mentality" and "midwestern car company" as shorthand to encompass the above notions. She describes the firm's culture as being in "a time warp" even after the completion of Smith's tenure. These loose descriptions of GM's culture are not inconsistent with various aspects of organizational culture discussed by such researchers as Kotter and Heskett (1992), Trice and Beyer (1993), and several contributors to Schneider's book (1990).

While the case presents strong evidence that different subcultures exist, it provides the most specifics on the NUMMI and Saturn subcultures. Division subcultures played a major role in reorganization of the various divisions as we soon indicate in more detail. We also do not want to forget that, with their emphasis on internal promotion and inward-orientation, it was the GM culture and subcultures that spawned Smith, and the other systems and organization domain executives. Thus, they are cultural products as well as transmitters.

Effectiveness

The case tells us that Smith took over just after GM had suffered one of its few losses in history. However, at least partly through an emphasis on clever accounting, he was able to effect short-term improvements in various sales and revenue-oriented measures. At the same time, market share continued to decline and there continued to be quality problems, and the break-even point rose substantially. Toward the end of the decade, the investors got nervous and gaining back the trust of stockholders became critical.

Archetype Summaries

We follow the overall track outline with summary periodic-archetype descriptions for three periods in Smith's tenure. These periodic descriptions are based on the track elements in the Figure 1 framework. They are an attempt to point out briefly the critical aspects of each element and to show how things cumulated to the point where a new archetype began to emerge at each of the critical turning points. These turning points were heavily influenced by strategy and organization design decisions.

Once again, these descriptions, while intended to convey the essence of periodical archetypes, are simplifications of the detailed, truly processual ones obtainable from analysis of more indepth data. Such truly processual periodic-archetype descriptions would involve connections with the overall track based on systematic analysis of intensities of the elements across time. Also, the descriptions and interpretations here are strictly ours and, in true grounded theory data gathering, would need to be cross checked with the key participants. With the previous qualifications in mind, let us examine each of the periodic-archetype summary descriptions.

Summary of Archetype I: "Visionary Bureaucracy" in 1981-1983

Soon after assuming the CEO position in 1981, Smith perceived a need for radical change to meet changing external and internal forces and to leave his mark across his tenure. He articulated his radical vision of GM as a lights-out, twenty-first century, fourth-wave corporation and invested many billions of dollars in leapfrog technology to carry out his vision. Even though Smith had an almost entirely new group of systems-domain executives to help get the vision off the drawing board, he underutilized them and those below and ran a one-person show. His limited behavioral repertoire restricted appropriate interactions and feedback concerning both the efficacy of the vision and the steps necessary to communicate it. The vision leapfrogged current technology and vastly overrated the importance of technology. At the same time, it vastly underestimated the importance of people—particularly workers.

The investment in fourth-wave technology reinforced the increasing centralization in the organization's design. However, it was becoming apparent that the current design was inadequate and substantial changes in organization design soon would be necessary. The tradition-bound organization culture was generally resistant to the new vision. Heterogeneous subsystems cultures surfaced, some resisting the vision, some not.

Short-term effectiveness measures were a marked improvement over the losses of 1980. However, market share continued to decline and there were increasing quality problems.

As a reiteration of the above, Smith concluded that GM was not currently in a position to make a cost competitive small car. He set up a "temporary" joint venture with Toyota in the form of NUMMI to help fill this gap.

Summary of Archetype II: "One-Person Turnaround Show" in 1983-1985

Smith continued to invest many additional billions of dollars in spite of mounting evidence that there were immense problems with leapfrogging state-of-the-art technology. Working primarily through the president, Jim McDonald, Smith started the major small car/large car reorganization to change GM's organization design. The design essentially did away with Fisher Body and General Motor's Assembly Division

and consolidated Buick, Oldsmobile, and Cadillac into the BOC group (large cars) and Chevrolet, Pontiac and GM Canada into the CPC group (small cars).

Five serious byproducts of this reorganization surfaced. First was a disruption in individual division identities and subcultures with accompanying loss of pride and other related effects. Second was disruption in the long-established managerial promotion and development system. Personnel movements were so vast that boss-subordinate linkages were severed. Indeed, the severage was so great that it was as if the organization had been cut in two in the middle. Third was a disruption of the extremely important networks that had been established to make the previous dysfunctional system work. Fourth, the effect of the reorganization was to insert another level of bureaucracy to coordinate the two groups. Finally, although the new organization was supposed to trim the number of needed employees substantially, the number actually increased as people were brought in to deal with the interface between the new and old systems.

At the same time as other parts of the corporation faced severe cost-cutting, the central staff personnel were left undisturbed. Thus, systems-domain executives were largely isolated from the new design and continued with their bloated staffs shielded in the 14th floor of the GM building.

Smith's rationale was to reinforce his high-tech vision and push it forward with an emphasis on paperless systems, to diversify in terms of extending nonautomotive expertise, and to help reshape the GM culture. To do that, Smith bought Electronic Data Systems (EDS) and Hughes Aircraft. Indeed, there was much disruption of the data processing subculture, but there were no systematic means to use subculture changes to alter the overall culture. This lack of systematic means, along with the reorganization's disruptions of subcultures, tended to create turmoil rather than to have the desired results.

From 1980 through 1986, GM spent some \$45 billion on Smith's vision and strategy, with some \$35 billion authorized for future spending. The break-even point had now risen 30% since 1980. The vast amount spent on the earlier investments contributed to a cash shortage in 1986, such that the firm was not in a good position to lower prices in response to rises in Japanese car prices.

Summary of Archetype III: "Desperate Actions before the Fall" in 1986-1990

In spite of mounting failures, Smith continued to push his flawed vision. He also continued to be largely nonresponsive to increasing quality concerns and complaints about badge-engineered cars. In 1986, in response to Perot's continuing criticism of the culture Smith had hoped Perot would change, Smith spent \$¾ billion to buy out Perot.

Meanwhile, NUMMI developed smoothly with its own strong and vastly different team-oriented subculture. It produced the highest quality cars in GM. When it became obvious that high technology could not provide the panacea for GM to build a cost competitive entry-level car, Smith created the Saturn corporation with a heavy team-oriented subculture, not unlike NUMMI's. Saturn's product line now put it in direct competition with Chevrolet's product line. Other GM managers visited NUMMI and Saturn frequently. However, there was no systematic way to spread the NUMMI and Saturn subcultures and working systems, and so their impact on the rest of GM was minimal.

The results of the earlier reorganization were now fully manifest and there was internal chaos. Difficulties were especially apparent in the CPC group and continued to grow. There also was increasing evidence that the reorganization should have included a substantial alteration of the central staff. However, this did not happen.

Also, outside institutional investors became disturbed and brought pressure on Smith to get costs under control and take actions to make GM more competitive. Previously, Smith had urged patience to allow time for the results of his vision to make themselves felt. He also was able to devise some short-term accounting changes to make things look better. Now, however, he was forced to cut costs drastically, taking measures to trim costs by \$10 billion between 1987 and 1990. This cutting primarily meant plant closings, which provided explicit recognition of a permanent decline in market share. This was an admission so at variance with the traditional GM culture that the case tells us there was a split in the executive committee concerning it.

Smith still did not provide serious support to improve quality although there were isolated pockets of improved quality such as Buick. Also, some steps were beginning to be taken to reverse badge engineering, but the lack of cash and other issues such as those above made this reversal difficult. The traditional "cash cow," Chevrolet, especially was starved for funds and forced to rely on old designs ("Crisis at GM," 1992).

In the direct domain, various encouraging indications of new types of team leadership and increased participation developed. However, these developments did not receive enough sustained support to be long-lasting or to have much of an impact on the GM culture.

Finally, in August 1990, Roger Smith, following GM policy, retired as CEO and moved to a five-year term on the board. Revealingly, concerning his leadership and the GM decline, he was still touting his high-tech vision and arguing that he wanted to be judged in five years. Ultimately, in 1992, there was a revolt of the traditionally passive board that led to drastic changes. Smith, after resisting, finally was forced off the board in 1993. Even then, he continued to argue that his decisions were the appropriate ones and to indicate that he was stunned by the board's actions (Keller, 1993).

Derivation of Illustrative Propositions

The previous applications, leading to summary archetypes across time, suggest numerous propositions. Here, we enumerate some of the more interesting and important ones for our purposes. We start with some general ones and then articulate propositions categorized by element. For simplicity, we do not explicitly link these to effectiveness, although this would be a logical next step.

General Propositions

General Proposition 1. Availability of vast amounts of resources tends to encourage bold but not necessarily wise actions.

General Proposition 2. A past history of success tends to reinforce limited behavioral complexity, a nonresponsive organizational design, and a conservative culture.

General Proposition 3. Actions/occurrences in each domain tend to have:

- a. direct and indirect effects within and between domains, and
- b. lateral and vertical effects (top down and bottom up).

General Proposition 4. Actions/occurrences in earlier periods tend to influence those in later periods.

General Proposition 5. Initial investments tend to have a substantial impact on later investments.

General Proposition 6. Direct and organization-domain changes need systems-domain support to have widespread impact.

Complexity Propositions

Complexity Proposition 1. A CEO with limited behavioral complexity will tend to:

- a. not communicate articulately upward, laterally, or downward concerning strategy and vision,
- b. not encourage or listen to upward, lateral, or downward feedback concerning strategy and vision, and
- c. not be able to positively change organizational and subsystems cultures.

Complexity Proposition 2. A CEO with limited behavioral complexity will tend to have difficulty accurately assessing his or her long-term strategy and vision.

Critical Task Propositions

Critical Task Proposition 1. To have the desired impact, it is important for strategy and vision to take into account:

- a. previous strategy and vision,
- b. organizational and subsystems cultures, and
- c. consistency with organizational aspects.

Critical Task Proposition 2. To have the desired impact, it is important for organization design to take into account:

- a. previous organization design,
- b. informal aspects of design, and
- c. consistency among design dimensions, external environment and technology.

Organizational Culture Propositions

Organizational Culture Proposition 1. An organization/subunit's culture tends to influence the selection of executives in all domains and especially those in the systems domain.

Organizational Culture Proposition 2. Executives tend to perpetuate the organizational culture that spawned them.

Organizational Culture Proposition 3. It is important for desired new organizational/subsystems cultures to have systematic mechanisms to influence current organizational/subsystems cultures, especially if the latter are strong, intense, or integrated.

Application of a Levels-of-Analysis Framework to Selected Propositions

The final and extremely important focus here involves a levels-of-analysis treatment of two selected propositions—Complexity Proposition 1 from the complexity element and Critical Task Proposition 1 from the critical task element. These were chosen because of their comprehensiveness and because they cover some aspects of each element of the model through their linkage with organizational culture.

Before discussing these propositions from a levels-of-analysis perspective, we briefly draw on the work of Klein, Dansereau, and Hall (1994) and others to develop the necessary levels-of-analysis terminology. Klein et al. (1994) divide their levels-of-analysis treatment into “single-level-of-analysis theories” and “multiple-levels-of-analysis theories.” Klein and associates’ discussion of single-level theories focuses on individuals within groups, where “groups” refers to any higher-level entity of the organization—dyad, team, department, firm, or industry. Also, they interpret the term “individual” to refer to components nested within, or members of, higher-level entities. These could include dyad members, members within a team, departments in a firm, or firms in an industry (Klein et al., 1994, p. 198).

Members in a group, as referred to above, are considered to be homogeneous, independent, or heterogeneous with respect to the theoretical constructs in question. Also, the relationships among the constructs are a consequence of differences between groups, differences between members independent of groups, or differences within groups (Dansereau, Alutto, & Yammarino, 1984, as cited in Klein et al., 1994, p. 199). In more detail, these are:

1. *Homogeneous.* Group members are sufficiently similar concerning a construct in question that they may be characterized as a whole. A single value or characteristic is sufficient in describing a group. Differences between groups are the focus (Klein et al., 1994, p. 199).
2. *Independent.* Concerning the construct of interest, individual members of a group are independent of that group’s influence, or independent of the value of others in that group. Differences between members independent of groups are the focus (Klein et al., 1994, p. 200).
3. *Heterogeneous.* Concerning the construct of interest, group members are compared or ranked with others in some way; individuals vary within the group. Differences within groups are the focus (Klein et al., 1994, pp. 201-202).

Klein and associates then expand the above discussion from consideration of these phenomena at a single-level-of-analysis to multiple-level-of-analysis theories. Three of these appear most appropriate for our treatment to follow:

1. *Cross-level models* describe “the relationship between independent and dependent variables at different levels [of analysis]” (Rousseau, 1985, p. 20). One example is the impact of group or organizational factors on individual behavior and attitudes (Klein et al., 1990, p. 220).

2. *Mixed-effects models* “suggest that a single organizational intervention may have effects at multiple levels of the organization” (Klein et al., 1994, p. 221). Thus, a single intervention may elicit different reactions depending on the location of an individual or group in the organization.

3. *Mixed-determinants models* “suggest that predictors at a variety of levels [of analysis] may influence a criterion of interest” (Klein et al., 1994, p. 222). Thus, environmental, group and individual characteristics may each influence job turnover (Hulin, Roznowski, & Hachiya, 1985 as cited in Klein et al., 1994, p. 222).

We now apply the above notions to Complexity Proposition 1 and Critical Task Proposition 1. We start by restating Complexity Proposition 1:

Complexity Proposition 1. A CEO with limited behavioral complexity will tend to:

- a. not communicate articulately upward, laterally, or downward concerning strategy and vision,
- b. not encourage or listen to upward, lateral, or downward feedback concerning strategy and vision, and
- c. not be able to change positively organizational and subsystem cultures.

Here, in terms of upward communication, we are focusing on the board of director members’ perceptions of Smith’s set of behaviors in communicating his new high-tech vision and strategy. We assume a single-level-of-analysis theory to be appropriate. The members could be homogeneous in their perceptions of Smith’s behavioral complexity and communication of this vision or they could be independent. Perhaps the most likely possibility is different perceptions of both depending on informal board cliques or formally appointed board committees/subcommittees.

We assume his lateral communication with those executives at his own level would be much the same as his upward communication. Thus, the most likely scenario is one with member homogeneity by informal/formal subgroups.

In terms of downward communication, it seems to us that a mixed-effects model with homogeneity by subsystem membership probably would vary by domain, division, plant, and maybe functional area within a plant.

Turning to part b of Complexity Proposition 1—encouraging upward, lateral, and downward feedback of the strategy and vision—our arguments are similar to those above. That is, we expect feedback perception and reaction to be the same as for communication of the vision.

Part c of Complexity Proposition 1 is concerned with the linkage between the CEO’s perceived behavioral complexity and perceived cultural/subcultural change at different locations throughout the organization. Here, we conclude that both mixed-effects and mixed-determinants models probably are relevant, especially when considering both organizational and subsystems’ cultures.

Without going into detail, essentially we expect the linkage between complexity and culture change to differ by organizational domain and by subsystems within. We do not expect organizational and subsystems cultures necessarily to be affected in the same way. Thus, there probably are moderators operating at least in terms of subsystems' cultures.

We have not explicitly recognized time in the above propositions, although, given the importance of temporality in Hunt's model and our Figure 1, it would be very important. While we do not explicitly apply the levels-of-analysis approaches by time, Klein et al. (1994) and Dansereau et al. (1984) do argue for their applicability. We might well expect various differences in Complexity Proposition 1 relations across the earlier discussed time periods.

We now focus on Critical Task Proposition 1, our second illustrative proposition for levels-of-analysis applications. It is repeated below:

To have the desired impact, it is important for strategy and vision to take into account:

- a. Previous strategy and vision,
- b. Organizational and subsystem cultures, and
- c. Consistency with organizational aspects.

Here, we might define the desired impact as a positive perception, set of attitudinal responses or response in terms of various effectiveness measures, or the like. Strategy and vision might be defined in terms of perceptions of Smith's strategy and vision.

Part a of Critical Task Proposition 1 is concerned with previous strategy and vision and as such explicitly recognizes temporality. Thus, we not only have the kinds of levels-of-analysis considerations important within time periods, but across time periods as well. Furthermore, the temporal aspects could be treated as separate sets of analyses or combined with the within-period analyses. We might expect perceptions of both current and previous strategy and vision to differ across groups but to be relatively consistent within groups. Thus, systems domain executives as a group and within subcommittees or cliques would be expected to perceive strategy and vision differently from those in other domains, divisions, plants, and the like. These perceptions might be relatively homogeneous for various groups across time or they might be expected to change as people compare the new strategy and vision with the old.

We might expect cross-level and mixed-effects models to be most relevant for our analysis. Homogeneity within groups would also be relevant and perhaps heterogeneity might be relevant in a comparison of former and current strategy and vision.

Turning to part b of Critical Task Proposition 1, we are interested in the linkage between strategy and vision, organizational and subsystems cultures, and the kinds of impact measures previously indicated. While we did not mention it explicitly in part a, there is a moderating relationship operating in both of these parts. In part a, previous strategy/vision may be conceptualized that way and in part b, organizational and subsystems culture may be treated as a moderator. Thus, a moderated cross-level model with variations as described in Klein et al. (1994) appears relevant. Accompanying that, we would expect the moderator term, like the predictor and dependent variable, to show primarily between-groups differences.

Part c of Critical Task Proposition 1 would be treated similarly to part b. However, the way in which “consistency” is conceptualized and measured can make its treatment more complicated than that of part b. The measurement of consistency is a complex topic in itself and contains numerous conceptual and measurement issues (Hunt, 1991). A simple way to treat it here would be to ask those doing the describing to make the assessment, rather than measuring various dimensions and trying to determine their consistency statistically. With this provision, part c might be treated much as part b in a levels-of-analysis application. Finally, as with the previously discussed propositions, future research might focus on a temporal levels-of-analysis perception.

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

We have argued that the major contributions of this article are:

- Its emphasis on the complex interplay between leadership of and in organizations as these two kinds of leadership operate together.
- A focus on grounded theory and mainstream analytical perspectives in examining an exemplar case illustrating major events in a huge and extremely important corporation across nearly a decade covering the top-ranking individual’s tenure from 1981-1990.
- The utilization of processual and comparative statics perspectives in conducting the previous analyses across the virtually decade-long time period of interest.

In focusing on the above contributions, we applied levels-of-analysis theory as relevant and used Hunt’s extended multiple-organizational-level model as the backdrop for the various analyses and comparisons. We also have used all the above points to help provide information concerning the research theme: Given that Roger Smith and the GM corporation were in a unique position to be successful, with their immense resources and long experience in the automobile industry, through what kind of processes did Smith and the corporation fail in their efforts to get reorganized and perform well? Accompanying the research theme was the underlying research question asking how top-level philosophies, actions, and events impact and interact with selected aspects deeper within the organization.

While the case did not provide us with sufficiently detailed data to develop in-depth answers to the theme and question, it did serve as a base to show how grounded theory and mainstream approaches could be used across time for such a purpose. Furthermore, through a series of propositions derived from the case narrative, the article showed how these analyses, modified Hunt model, and levels-of-analysis theory go together to provide insights on these concerns.

Given our emphasis on the use of both grounded theory and mainstream perspectives, we extend that treatment with a brief comparison of how each might be used in future work. *First*, it is worth reiterating the aggregation across issues or areas of concern point raised earlier. For example, in a mainstream approach, for the sake of parsimony, various areas of strategy might be averaged together to provide some sort of overall measure or indicator of strategy. Grounded theory would tend to emphasize the various separate issues. Indeed, the separate issues would tend naturally to emerge as a part

of the grounded theory approach. This aggregation across issues is also important as an additional levels-of-analysis consideration. Issues themselves can be considered as more or less homogeneous or as being similar or different at various levels, and the like, in the same way as the other aspects that were considered.

Second, a mainstream perspective would tend to abstract the concepts emphasized in propositions such as those used earlier, so that they could be analyzed statistically. A grounded theory perspective would place much more emphasis on seeking explanations or sense-making rationales for the hypothesized relationships.

Third, grounded theory would tend to build in varying levels of analysis as an integral part of the process. In contrast, in mainstream theory development, they would be explicitly broken out and addressed if one followed the recommendations of levels-of-analysis scholars. This contrast goes back to the differences in the ways grounded theorists usually collect their data. Instead of administering a survey, they would, for example, conduct numerous interviews of board members.

These interviews might be done individually, in formal and less formal settings, and maybe repeated frequently, across time, while observing the board in action, if possible. The interest would be in such areas as: how the board members behave, how they form opinions, how they come to a decision, how they talk about the CEO, and how similar or different their perceptions are. Such a procedure would be designed to find out how the board operates and to detect both the individual and collective aspects of its activities. The same type procedure would apply to all domains.

By implementing the above procedure, a grounded theorist would presumably be in a good position to provide insights on, say, the relationships between the perceptions of a CEO's behavioral complexity and board member feedback—for example, what kind of board members seem to give more feedback than others and what type of feedback is given in general. Moreover, it would be possible for the grounded theorist to at least suggest some underlying explanations of why the relationship might be what it seems to be.

Fourth, as mentioned previously, temporality could be addressed as a process in a grounded theory approach. A grounded theorist would either systematically follow through a concrete reorganization process and/or use retrospective data to draw processual inferences. In contrast, if addressed at all in a mainstream approach, temporality more likely would be addressed in a comparative statics fashion as was done in this article.

Fifth, in addressing the research theme and question, if additional data were available, a grounded theory approach would have a much more contextual emphasis than its mainstream counterpart. That contextual emphasis would also emphasize the processes involved in much more detail than we were able to here. Levels-of-analysis theory could be explicitly applied to add additional insights beyond those obtained from the grounded theory and to assist in the grounded theory development. Propositions or more specific hypotheses could be used as a starting point for the grounded analysis.

A mainstream counterpart here would tend to generate hypotheses addressing the questions that would be based not only on the kinds of information in the narrative case description but probably would draw on a much broader literature base. The research theme and question might well be broadened to include data from additional organizations if that were desired. Then the hypotheses would be tested with appropriate

statistical techniques and levels-of-analysis theory would serve as an important guideline. These techniques easily could be oriented toward comparative statistics and, in some cases, might be more processual in nature.

Sixth, it is important to note that grounded theorists make a distinction between developing a substantive versus a formal theory (Glaser & Strauss, 1967, pp. 79-99). A substantive theory is where the research is grounded in one particular substantive area (managerial work, higher education, and the like) and may not be applicable in another substantive area. However, a substantive theory may have more general implications and relevance (generalizability, in mainstream terms) and become a stepping stone to the development of a grounded formal theory, applicable in several substantive areas. The point is that a grounded theory perspective considers substantive theory development a strategic link in the formulation and generation of formal theories. Its proponents, such as Glaser and Strauss, find it desirable and usually necessary to proceed from a substantive to a formal theory, because the former gives an initial direction to the latter in developing relevant categories and properties and in choosing possible modes for their integration (Glaser & Strauss, 1967, p. 79).

It is our observation that in organizational analysis, especially in leadership research, formal theories have mostly been generated directly from data without generating more narrowly focused substantive theories that pay attention to the historical context of the phenomenon. This “short-cut” type of theory development in the leadership research may have left a conceptual void that needs to be filled by going back to more substantive case studies.

We conclude with two more brief points. First, although we have emphasized research and conceptualization, it is also useful to consider implications in terms of management practices. We think perhaps the key managerial implication of the article as a whole is the sensitization of managers to think systemically and processually and to recognize the importance of leadership of organizations. At the top of the organization, the importance of this admonition should be obvious, but it also applies at levels deep within the organization. Much of what happens at these levels is conditioned directly or indirectly by what occurs at the leadership level above, and sensitization can lead to proactivity. Much is also conditioned by what went before, and it is necessary to give careful consideration to what is to come. Systemic and processual thinking would be likely to lead managers to recognize selection and development issues as well as focusing on the kind of elements covered in this article.

Second, and finally, we emphasize once again that we have attempted to look at two different ways of knowledge development through the integration of a more substantive grounded theory perspective with a more formal and abstract mainstream perspective. While keeping in mind the basic differences between the two perspectives, we have tried to make the case that such integration is valuable and insightful and worth further development in the future.

APPENDIX: A BRIEF HISTORY OF GENERAL MOTORS

Until recently, GM has had a grand and glorious history. Given its condition in 1991 at the end of Roger Smith's era, with less than 35 percent market share, it is difficult to believe that not too many years ago, a key concern of the company was to avoid

being broken up as a result of the application of U.S. antitrust provisions. Indeed, into the late 1970s, GM's market share was nearly 60%, a position it had held since the late 1950s.

General Motors was originally incorporated in 1908 and, under its founder William Durant, underwent machinations as extreme as any to be seen in American industry. Finally, Durant was ousted from the helm for the second time in 1920 and Pierre duPont took charge and brought in Donaldson Brown who strongly influenced GM's financial philosophy for many decades. A cornerstone of this philosophy was a "standard volume" approach to pricing based on achieving a predetermined return on investment at 80% of annual production figures.

In 1923 duPont moved to board chair and promoted Alfred P. Sloan, Jr., to president and CEO. Sloan established the strategy of selling cars at the top of each price range, competing in price against cars slightly above GM's and in quality against less expensive vehicles. Basically he wanted, "a car for every purse and purpose" (Lee, 1989).

Sloan borrowed much of his management philosophy from the German army. Essentially, that philosophy involved decentralized operations and responsibilities with coordinated financial controls. The central GM board established guidelines and policies. Accompanying this overall management philosophy was a "forced draft obsolescence" approach, whereby there were annual model changes to encourage repeat sales. With its five automotive divisions accompanied by a myriad of other divisions ranging from suppliers to diesel locomotives, aircraft components, and a financing arm, GM ultimately became the world's largest corporation. From 1929 until very recently, GM sold more autos than any other company in the world. Even during the darkest days of the Depression, the firm made a profit; it suffered its second loss ever in 1980.

GM tended to be conservative in terms of product developments throughout the 1930s, although the 1940s brought Hydramatic, high-compression V-8 engines, and tailfin styling that ultimately ran amuck in the 1950s. In the mid-1950s, there were price wars among GM, Ford, and Chrysler that finally forced the few remaining domestic competitors to merge and/or go out of business. Indeed, as mentioned earlier, at one point GM had more than 60 percent of the domestic market and, partially in an attempt to forestall antitrust action, started a long-term trend toward integration (assuming it would be harder to break up an integrated firm than to force it to sell off automotive divisions). The divisions tended toward much less autonomy. They became essentially manufacturing arms for parts used throughout the corporation and marketing organizations for nameplates, which they now had little control in designing. Accompanying this movement away from autonomy was "badge engineering," whereby essentially the same cars were marketed by different divisions under separate nameplates or badges.

During the 1960s, although not broken up, GM was buffeted by the turbulence of various consumer groups invading stockholder meetings in protest against exorbitant profits. At the same time, the federal government began safety, emissions, and employee health standards and, ultimately, fuel economy regulations. Also, during this period GM largely ignored the economy-car market segment that was growing in importance. GM's limited foray into that market was desultory at best—the corporate management's heart was in full-sized cars that grew increasingly larger.

During the 1970s, under chairpersons Gerstenberg and Murphy, respectively, the corporation finally began to move away from the philosophy of increasing car size. GM began downsizing its cars, pushed ultimately by the Arab oil embargo of 1973. The first results of the firm's new attempts to downsize its full-sized cars appeared in the 1977 model year. That move helped in meeting government fuel mandates but hurt

in the marketplace. However, in 1979, there was a second fuel embargo and GM's smaller cars were relatively well positioned. Even so, the recession of 1980 led to GM's second loss in 73 years. The next year saw Roger B. Smith elevated to board chair and CEO, after serving as Thomas Murphy's heir apparent and being groomed methodically for upward movement for 31 years.

The Firm's Background and Evolution

One GM insider argues that Sloan had essentially four tenets in his management philosophy and organizational design. These were:

- Policy by committee,
- Balance between financial oversight and operating autonomy,
- Centralized policy and decentralized administration, and
- Guided progression and succession for development of managers (Lee, 1989, ch. 2).

In terms of policy by committee, Sloan originated two major committees—policy and administration—that served essentially as governance devices and a court of last appeal in a federalist system. Sloan encouraged total openness in the committees, which were supported by subcommittees comprised of line and staff experts. He also insisted that the committees make policy but that only individuals administer policies. Over the years, more and more committees and subcommittees were established. Indeed, by the 1960s and through the 1970s, there were so many committees that Sloan's original purpose was subverted and it became very difficult to get decisions approved and implemented. Thus, what started out as genius and served well for many years ultimately became dysfunctional.

The second of Sloan's pillars, the balance between finance and operations, started out with financial control in the hands of the board chair in New York and operations in the hands of the president in Detroit. As GM's market share and its concern with antitrust suits grew in the 1950s, what had been a relatively dynamic corporation inexorably moved away from market share and toward short-term profitability. Accompanying this change in emphasis away from products and toward stability was the increasing importance of finance. Indeed, the increasing enamoredness with finance was signaled by the ascension of Frederick Donner in 1958, via the financial route, to both chair and CEO. Meanwhile, the president's position was downgraded to a chief operating officer position. This ever-increasing financial and bottom-line emphasis increased until, in the 1970s, all executive assistants (the eyes and ears of senior-level managers) were required to have financial backgrounds and, indeed, reported to the treasurer's office in New York in addition to being responsible to their immediate boss. Similar shifts toward finance and the bottom line also occurred at Ford (Halberstam, 1986) and Chrysler.

In terms of Sloan's centralized policy and decentralized administration tenet, each car division essentially operated as a moderate-sized to large company responsible for its own return on investment, within that of the overall corporation. Each had its own general manager, engineers, designers, suppliers, sales staff, and research activities. The only exception was Fisher Body, which built the skins for each division on order. During the 1960s, the divisions were gradually stripped of their autonomy. Fisher body now controlled design; the various transmission, engine, and components divisions assumed

greater control over what had been car division functions. Accompanying this move was the creation of the General Motors Assembly Division in 1971. It was given complete control of the manufacturing function. With these moves badge engineering became a way of life and was consistent with the increasing importance of finance with its profit and bottom-line emphasis.

Three forces, in addition to the earlier antitrust concern, have been argued to be primarily responsible for this increasing movement away from autonomy. First was the increasing governmental regulation mentioned earlier and accompanied by increasing product complexity. Second was the emphasis on computer-based technology in both the cars themselves and factories where they were made. Some of this computerization and accompanying automation was successful, but much was not. Finally, the Arab oil embargo of 1973 brought a clamoring from each of the divisions for a small, fuel-efficient car, since the large ones were not selling. There followed a series of badge-engineered small cars for each of the divisions, ultimately even Cadillac.

Sloan's final pillar was the systematic and guided progression and succession for managers, with what evolved into six-month evaluation periods. The system was designed to provide a series of steps of increasing difficulty over 35 to 40 years. These were presumed to ultimately lead to the two most meritorious individuals assuming the position of chair or president for a three- or four-year stint. This system led to the development of a small cadre (5-8%) of GM fast-track managers. Such fast-trackers were reflective of Sloan's elitist philosophy, whereby he tended to treat workers as commodities and to emphasize management and investment as General Motor's keystones.

The system essentially moved those identified as fast-trackers through various positions so quickly that there was usually not time for the real impact of their decisions to be felt. Not surprisingly, these "philosopher kings," as Lee (1989) calls them, exhibited what the military terms "the new commander syndrome." That is, they tried to make quick changes that would gain them visibility. Again, not surprisingly, those white-collar workers and others not on the fast track tended to respond cynically to the changes in such a way that prechange activities could be reestablished as soon as the fast-tracker moved on. In spite of their best efforts, this promotion system tended to promote instability for those below, and for the fast-trackers, like-minded thinking to that of the boss. While the fast-trackers were moving through the system, the resistance by those below and the committee system tended to provide damage control as the fast-trackers learned the ropes. The overall effect of Sloan's system was to promote interchangeability and managerial stability. The system served the corporation well in its early years but after the 1950s, as the environment became increasingly unstable, the system became less and less functional.

REFERENCES

- Ashby, W. (1952). *Design for a brain*. New York: Wiley.
- Boal, K.B., & Whitehead, C.J. (1992). A critique and extension of the stratified systems theory perspective. In R.L. Phillips & J.G. Hunt (Eds.), *Strategic leadership: A multiorganizational-level perspective* (pp. 237-254). Westport, CT: Quorum.
- Cameron, K.S., & Freeman, S.J. (1991). Cultural congruence, strength, and type: Relationships to effectiveness. In R.W. Woodman & W.A. Pasmore (Eds.), *Research in organization change and development* (Vol. 5, pp. 23-58). Greenwich, CT: JAI Press.

- Chandler, A.D., Jr. (1962). *Strategy and structure: Chapters in the history of American industrial enterprise*. Cambridge, MA: MIT Press.
- Crisis at GM. (1992). *Business Week*. (November 9), 85-86.
- Dansereau, F., Alutto, J.A., & Yammarino, F.J. (1984). *Theory testing in organizational behavior: The variant approach*. Englewood Cliffs, NJ: Prentice-Hall.
- Denison, D.R., Hooijberg, R., & Quinn, R.E. (In press). Paradox and performance: Toward a theory of behavioral complexity in managerial leadership. *Organization Science*.
- Dubin, R. (1979). Metaphors of leadership: An overview. In J.G. Hunt & L.L. Larson (Eds.), *Crosscurrents in leadership* (pp. 225-238). Carbondale, IL: Southern Illinois University Press.
- Glaser, B.G. (1992). *Basics of grounded theory analysis*. Mill Valley, CA: Sociology Press.
- Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine.
- Greenwood, R., & Hinings, C.R. (1988). Organizational design types, tracks and the dynamics of strategic change. *Organizational Studies*, 9, 293-316.
- Greenwood, R., & Hinings, C.R. (1993). Understanding strategic change: The contribution of archetypes. *Academy of Management Journal*, 36, 1052-1081.
- Halberstam, D. (1986). *The reckoning*. New York: Morrow.
- Hinings, C.R., & Greenwood, R. (1988). *The dynamics of strategic change*. Oxford, UK: Basil Blackwell.
- Hooijberg, R. (1992). Behavioral complexity and managerial effectiveness: A new perspective on managerial leadership. Unpublished Ph.D. dissertation, University of Michigan, Ann Arbor.
- Huff, A.S. (Ed.) (1990). *Mapping strategic thought*. Chichester, UK: Wiley.
- Hulin, C.L., Roznowski, M., & Hachiya, L. (1985). Alternative opportunities and withdrawal decisions: Empirical and theoretical discrepancies and an integration. *Psychological Bulletin*, 97, 233-250.
- Hunt, J.G. (1991). *Leadership: A new synthesis*. Newbury Park, CA: Sage.
- Hunt, J.G., Osborn, R.N., & Larson, L. (1975). Upper-level technical orientation and first-level leadership within a non-contingency and contingency framework. *Academy of Management Journal*, 18, 476-488.
- Hunt, J.G., & Ropo, A. (1992). Stratified systems theory and dynamic case study perspectives: A symbiosis. In R.L. Phillips & J.G. Hunt (Eds.), *Strategic leadership: A multiorganizational-level perspective* (pp. 179-194). Westport, CT: Quorum.
- Hunt, J.G., & Ropo, A. (In press). Systems motivation, leadership, and teaching in an innovative academic setting. In J.L. Bess (Ed.), *Teaching well and liking it*. Baltimore, MD: Johns Hopkins University Press.
- Jacobs, T.O., & Jaques, E. (1987). Leadership in complex systems. In J.A. Zeidner (Ed.), *Human productivity enhancement* (Vol. 2, pp. 7-65). New York: Praeger.
- Jaques, E., & Clement, S.D. (1991). *Executive leadership: A practical guide to managing complexity*. Arlington, VA: Cason Hall.
- Jaques, E. (1989). *Requisite organization*. Arlington, VA: Cason Hall.
- Keller, M. (1989). *Rude awakening: The rise, fall, and struggle for recovery of General Motors*. New York: Harper Collins.
- Keller, M. (1993). *Collision: GM, Toyota, Volkswagen and the race to own the 21st century*. New York: Doubleday.
- Klein, K.J., Dansereau, F., & Hall, R.J. (1994). Levels issues in theory development, data collection, and analysis. *Academy of Management Review*, 19, 195-229.
- Kotter, J.P., & Heskett, J.L. (1992). *Corporate culture and performance*. New York: Free Press.
- Lee, A. (1989). *Call me Roger*. Chicago: Contemporary Books.

- Levy, A., & Merry, V. (1986). *Organizational transformation*. New York: Praeger.
- Lewis, P., & Jacobs, T.O. (1992). Individual differences in strategic leadership capacity: A constructive developmental view. In R.L. Phillips & J. G. Hunt (Eds.), *Strategic leadership: A multiorganizational-level perspective* (pp. 121-138). Westport, CT: Quorum.
- Martin, J. (1992). *Cultures in organizations: Three perspectives*. New York: Oxford University Press.
- Miller, D., & Friesen, P.H. (1980). Archetypes of organizational transition. *Administrative Science Quarterly*, 25, 268-299.
- Miller, D., & Friesen, P.H. (1984). *Organizations: A quantum view*. Englewood Cliffs, NJ: Prentice-Hall.
- Mintzberg, H. (1984). Of strategies, deliberate and emergent. *Strategic Management Journal*, 6, 257-272.
- Mintzberg, H. (1979). *The structuring of organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Pettigrew, A.M. (1990). Longitudinal field research on change: Theory and practice. *Organization Science*, 1, 267-292.
- Phillips, R.L., & Hunt, J.G. (Eds.), (1992). *Strategic leadership: A multiorganizational-level perspective*. Westport, CT: Quorum.
- Quinn, R.E. (1988). *Beyond rational management*. San Francisco: Jossey-Bass.
- Ropo, A. (1989). *Leadership and organizational change*. Acta Universitatis Tampereensis, series a, volume 280. Tampere, Finland: University of Tampere. (Available in English in the Library of Congress, Washington, D.C.)
- Ropo, A., & Hunt, J.G. (1994). Leadership and organizational change: Development of a processual grounded theory. Unpublished manuscript, College of Business Administration, Texas Tech University, Lubbock.
- Ropo, A., & Hunt, J.G. (In press). Entrepreneurship processes as virtuous and vicious spirals in a changing opportunity structure: A paradoxical perspective. *Entrepreneurship Theory and Practice*.
- Rousseau, D.M. (1985). Issues of level in organizational research: Multi-level and cross-level perspectives. In L.L. Cumming & B.M. Staw (Eds.), *Research in organizational behavior* (Vol. 7, pp. 1-37). Greenwich, CT: JAI Press.
- Rousseau, D.M. (1990). Assessing organizational culture: The case for multiple methods. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 153-192). San Francisco: Jossey-Bass.
- Schneider, B. (Ed.) (1990). *Organizational climate and culture*. San Francisco: Jossey-Bass.
- Strauss, A.L. (1987). *Qualitative analysis for social scientists*. New York: Cambridge University Press.
- Suedfeld, P., & Tetlock, P.E. (1990). Integrative complexity: Theory and research. Unpublished manuscript, Department of Psychology, University of California, Berkeley.
- Toffler, A. (1981). *The third wave*. New York: Bantam.
- Trice, H.M., & Beyer, J.M. (1993). *The cultures of work organizations*. Englewood Cliffs, NJ: Prentice Hall.