



Challenges of Leading and Planning in Academic Medical Centers

Thomas N. Gilmore

Larry Hirschhorn

Michael Kelly

March 1999

©1999 CFAR
Philadelphia, PA
215-320-3200

Cambridge, MA
617-576-1166

www.cfar.com

We often hear a call for more leadership and strategic planning in academic medicine (Williams, 1987). The implied paragon typically is a private sector company with an entrepreneurial CEO setting a direction and crafting an innovative strategy to realize the vision. We want in this article to describe our understanding of the academic medical center that contrasts sharply with a for-profit corporation. We emphasize, in particular, its “loosely coupled” structure, its “church-state” character and finally, the proliferation of sub-units that amplifies this structure and character in ways that pose unique challenges to leadership. Then, we will briefly review some significant pressures that academic medical centers now face. Lastly, we will describe a number of leadership strategies arrayed under two principle themes: protecting the existing system and changing the existing system, which we call guiding and developing the institution.

Loose Coupling

One reason why the context of leadership and strategic planning in a corporation is often less complex than that of a medical center is that universities and their medical centers are classic examples of what organization theorists call “loosely coupled” systems (Orton and Weick, 1990). A loosely coupled system is a setting where individual elements have high autonomy relative to the larger system in which they are imbedded, often creating a federated character of the institution. In loosely coupled systems actions in one part of the system can have little or no effect on another or can unpredictably trigger responses out of proportion to the stimulus. The linkages among elements are often ill understood and/or uneven. In loosely coupled systems, the forces for integration—for worrying about the whole, its identity, its integrity and its future—are often weak compared to the forces for specialization. Central authority is, in important respects, derived from the members rather than the member elements receiving delegated authority from above. The loosely coupled character of educational institutions requires a different approach to leading and planning.

Whether physicians have heard of the term “loosely coupled” or not, they have an instinctive appreciation for its dynamics. Faculty are often more connected through mutual scholarly or clinical interests to disciplinary colleagues outside the medical center than they are to faculty and administrators within who are focused on strengthening the caliber or the economic sustainability of the institution as a whole. Until managed-care companies created pressures for improved billing and scheduling systems between departments, the main connection between clinical specialties was often patients with multiple problems. Most physicians understand that a relatively new executive vice president for health sciences may have less clout with NIH and other influential groups within and outside the institution than a long-term chief of a clinical service or highly productive faculty member in basic science.

In profit-making firms, company executives developing strategies have reasonable control over the disposition of resources and the deployment of personnel, even when many of their operating units are highly decentralized. Therefore, they can think holistically and can ask how scarce resources such as money, talent or

facilities can be best used. They often have a clear set of goals and operate within an organizational structure that is accorded legitimacy by its members.

Compare this to a variety of settings in academic medicine:

The vice president for administration of the medical center knows how critical it is to the future of the institution to work more effectively with managed care companies and develop the ability to bid on capitation contracts. He seeks to develop a common billing and accounting system to create unified billing for up to two dozen clinical departments and divisions as well as the teaching hospital where most medical center physicians admit patients. Each of the clinical departments and subunits have their own business officers who are beholden to the department chairs or division chiefs who hired them and who operate largely independent billing and accounting systems. The hospital is resistant because the leadership is satisfied with their accounting and billing system. How does the vice president deal with the numerous fiefdoms standing in the way of such a critical strategic initiative? Negotiation? Frontal assault?

The chair of the department of physiology finds that putting together a coherent curriculum is requiring more and more negotiation time with colleagues. Younger members claim they need time off from any teaching to write for tenure or develop research proposals, others have busy consulting and NIH review panel schedules, and still others threaten to take their research grants elsewhere if asked to teach more than a negligible schedule.

A dean of a medical school works with department chairs who are often semi-autonomous scientists that control their own research funds; faculty physicians decisively shape the economics of their clinical practices; the cooperating hospitals function as autonomous units facing their own fiscal and political challenges. What does planning mean in such a setting? How do a dean and his colleagues at the executive level influence the development and shape of a federated center with numerous power centers and complicated politics?

Leaders of loosely coupled systems like academic institutions can plan for their future, but the plans they develop, the frameworks they use and the planning processes they deploy must all fit the special characteristics of the institution they lead.

“Church” and “State”

There is another important dimension to the loose coupling of academic medical institutions. An anecdote can perhaps best capture this complication and get us started thinking about it. When Alfred North Whitehead was told of Conant's appointment to the presidency of Harvard, he was reputed to have remarked, “But he is a chemist.” When his informant reminded him that an earlier president had

been a chemist, Whitehead replied, “But Conant is a good chemist!” implying that it was a waste of a good scholar to weigh him down with the presidency of Harvard. John Isaacson has described organizations in which one group feels its work is a calling, mission driven, and another takes up the challenge of providing a productive context for the missionary work as “church-state” organizations. Church-state divisions in academic and other professional organizations are far more profound than the characteristic line-staff tensions of the corporate world.

The church-state dichotomy worked well in a less complex world. Law firms, R&D labs and academic medical centers traditionally had managers in relatively weak support roles and were able to thrive. Sometimes there were considerable inefficiencies from the strong values of autonomy that characterize those on the church side and the loose coupling between administrators and professionals. As organizations have become more complex, however, management began to make claims for itself as a profession with a specialized body of knowledge. As the wider environment began to pose stronger market and/or regulatory pressures—such as productivity constraints on R&D labs, cross-selling in law firms, scrutiny of research overhead costs in medicine and higher education—the relationships between managers and professionals have grown more complicated.

The church-state tradition in the academic world retains powerful force. The church role is filled with the promise of discovery, adventure and independence, and the managerial role carries with it the world of constraints, trade-offs and the relentless necessity of collaboration. Often when church members take state roles, they speak longingly of getting back to the real work, or as the Conant story suggests, realize that their priestly credentials have been diminished in the eyes of their peers. “Administration” in many settings is not uncommonly viewed as a form of stigma, talked about as “fat, bloated, wasteful, nonvalue adding” even when individuals in the priestly realm have good, productive relationships with particular administrators. Physicians and academics often fail to differentiate either the relevant quality or the importance of particular services to their work. Church and state work seem ranked by separate metrics rather than in terms of contribution to a single overall mission.

Sometimes a result of this tension is that transactions between church and state in academic medicine can become infected by a kind of disingenuousness. People find it hard to talk directly and openly, especially from state to church. Instead of productive collaboration, the conversation risks being stunted either by implicit or explicit church contempt for the managerial role or by managers who either are unwilling to push back against a poor idea or are manipulative of the situation out of their own contempt for the “real-world” inexperience of the church side.

Proliferation of Semi-autonomous Units

Another dimension of the loosely coupled character of academic medical institutions adds additional challenges to leading and planning in this environment. Let's avoid the temptation to give it a name elegant in its simplicity like "turf." A polysyllabic moniker, like "jurisdictional proliferation," almost mimics the phenomenon we need to describe. The two things we have discussed thus far—federated structures and church-state divisions—interact to complicate virtually any initiative at almost any level of the institution. Medical centers are *pervasively* loosely coupled. Not only are they a federation of basic science and clinical departments and divisions, but below the level of deans and vice presidents and department heads they are a world of sub-units, centers, institutes, programs, functions and special activities. Each of these sub-units has its own micro-church and state elements such as a chief and an administrator. Furthermore, each of these units has resolved church-state issues in different ways, some in the traditional mode of state subservience in order to support church interests, others by more collaborative relationships to define responsibilities, relevant skills and reporting structures to achieve results that greatly enhance the performance of the unit. The department of family medicine may be "run" by a secretary on whom members of the department have depended for years to handle the budgeting, personnel matters and other paper work. Oncology may have nurtured a relatively sophisticated cadre of managers who are highly prized by the researchers and who are skilled in laboratory management and personnel and grants administration.

The subunits, reflecting a range of ways of resolving the natural tensions of church and state, from subservience to high levels of sophistication and collaboration, are often characterized by strong alliances or close-working connections between faculty and staff, church and state. These local alliances often pose problems for larger-scale efforts to establish new relationships linking church and state. For example, *both* the chair and the administrator of the Health Care Management Institute may struggle against a university-wide sole source purchasing deal for copiers that promises significant savings for the medical center because they already have a creative and economically favorable arrangement with one vendor. The faculty and managers in the division of Urology, for example, might fiercely resist medical-centerwide or department of surgery billing improvements because the new arrangements, critical to the medical school's managed-care relationships, threaten Urology's highly effective collections system. They could well be accurate in assessing their current systems as superior to the new one, especially in light of considerable ambivalence and resistance in its implementation.

New Challenges to the Academic Medical Enterprise

The traditional context just described—of academic institutions characterized as loosely coupled in terms of their federated character, church-state divisions and jurisdictional proliferation—is under severe pressure in a number of different ways.

First, innovation in modern medicine often occurred under conditions of relative plenty with incremental dollars and under low-time pressures. Today the challenge to innovate usually carries with it time pressures, reduced resources and complicated negotiations with other departments. The seed capital for innovation often must be reallocated from some current use with its associated supporters. Big science's need for capital and center grants require alliances across many levels and units. Short deadlines, declining resources and the need to forge collaborations lead to a high degree of defensiveness, if not outright hostility, unless handled with extraordinary skill and delicacy. Poor morale is an unpromising environment for thoughtful innovation.

Second, the locus of innovation and change is often at the system level rather than, as in the past, the unit level. Revamping the first and second year MD curriculum can no longer be the sum of different departments each redesigning their offerings, but a difficult discussion of what should be included and how it should be offered. Redesigning a more efficient patient-scheduling system in the medical center will not result from unit-level innovation.

Third, whereas most of the innovation in recent decades was led by church elements with the state in a support role, now many of the strategic challenges facing medical education require close collaboration among church and state elements: joint ventures between a department of molecular biology and a pharmaceutical corporation, a deal between internal medicine and a large private kidney-dialysis company, negotiating with managed-care providers for an entire medical center. All of these require sophisticated thinking and extraordinary skills from business managers. A different but instructive case is presented by information technology. In many cases, some health-science librarians have successfully sought to be identified with the church in terms of tenure, grievance procedures, benefits and other rights that resemble those of faculty. Resource constraints and other strategic reasons are leading many medical institutions to develop integrated governance and management of information technology across both church and state regimes. In such a setting, library's or other departments' self-conception of being a high church seems particularly anomalous amidst the leveling impact telecommunications now imposes on modern information technology systems.

Fourth, collaborative skills and understandings of people who might be called “multi-lingual” integrators from each side may be in short supply, as are the settings where church and state can learn to think together about mutual challenges. Organizations seem increasingly overwhelmed with busyness, and leaders feel exhausted and depleted at the end of a day. There is not the time nor space to step back, get perspective, see the larger stakes and think about the highest best use of human resources in the service of the mission of the

organization. At a time when decision-making speed and the interdependence of church and state decision makers seem to be necessities, loose coupling can turn out to be a significant liability.

Finally, the new, more stringent regulatory environment for higher education, health care and biomedical research poses the threat of exacerbating the historic tensions between church and state. Typically it falls to the state to struggle with, interpret and implement outside constraints—whether it be IRS purview of retirement and other employment benefits, Medicare regulations, EEOC requirements, A-21 cost accounting, the necessity to initiate year 2000 system changes or local zoning. Negative feelings about the impositions of the outside world—including the board of directors of the university or governing body who insist on cost cutting—are often displaced onto the organization’s business officers who must serve, willing or not, as local agents of the board, or federal or local government. The state is thrust increasingly into the role of an extremely unwelcome messenger.

Leadership Strategies

To create the new, a leader must accept enough of the old to be accepted—what Hirschman calls “trait taking and trait making” (Hirschman, 1967). In the current environment, academic medical center leadership must acknowledge the historic semi-autonomous status of the component units while looking for openings to move the organization toward more integrated performance in education, clinical service and research. This results in two aspects of leadership—one more protective and reactive, the other more developmental and proactive. To protect the system, the executive keeps the system within its safety zone and manages its contradictions (Dror, 1989). To guide the system the executive develops strategic themes, builds a planning infrastructure and works at the “seams” between units, giving a boost to emerging synergistic combinations. The following are explorations of these two primary themes of leading an academic medical center.

Protecting

1. *Recognize that support (and thus authority) derives from sensitivity to the needs of the existing system.* An executive needs to establish the fairness of decisions affecting the existing equilibrium of departments, institutes, etc. (Delbecq and Gill, 1985). Clear explanations of financial pressures and decisions—transparency in decision making—are one element of building trust in a loosely coupled system. Another is the expectation that the executive will monitor the system, protect it from crisis and know when a crisis in a component part can affect the viability of the whole. Executives are expected to prevent crises by managing the issues and monitoring the conditions that best indicate how close or far the system is from a state of crisis. They keep key leaders and power brokers focused on these conditions and issues so that everyone develops a common interest in keeping the institution within its zone of safety. A government agency that subsidizes the system’s basic costs or a major managed

care company that affects cost recovery across the medical center can directly and simultaneously affect all the subsystems at the same time. These conditions become “rate-limiting” factors or constraints on the development of the system as a whole. The executive is expected to monitor the status of these resources, conditions and emerging constraints to protect the system from sudden or precipitous changes in their status.

2. *Create space to build leadership.* The etymology of the roles of a chief executive can serve as a rough guide: *administrator* comes from the Latin words meaning “minister to” or servant; *manager* derives from the same medieval French family of words as *menage* and literally means keeper of the beasts; and *leader* is an Anglo-Saxon word that means the person who finds the path (Maister). A medical school dean is expected to be all three. In fact, unless the executive delivers on the roles of manager and administrator, he or she is unlikely to be able to claim the moral authority to be a leader. Unless able colleagues are found who are perceived as surrogates to serve the medical center’s administrative needs and deal with the countless issues posed by the bestiary, an executive will never have a moment to look for, let alone find, the right path.

A new dean needs to be cautious not to move too quickly before support systems and staff are in place. It is easy to start a score of initiatives and then become overwhelmed and lose credibility because of overpromising and underdelivering (Gilmore, 1988). One great strength of loosely coupled systems is that they have a high level of inertia that works in favor of the executive’s agenda since good enough performance will keep going without special effort. The very forces that make organizations difficult to change will keep them reasonably stable until a leader can get organized (Cohen and March, 1976).

Triage is a useful way of managing both the early and sustaining focus of a leader:

- ◆ Downside risks must have high priority because something is happening that could cause real regression—perhaps the risk of some key talents being recruited out of the organization, a crisis, some negative dynamic that needs immediate attention.
 - ◆ Upside gains are situations or opportunities where, if seized aggressively, there is a real chance for non-incremental improvement.
3. *Authorize leadership colleagues as surrogates.* The highest priority (after triage) must be to assemble a leadership group that generally reflects the executive’s values and priorities and in whom the executive has confidence. Ideally this group would be a mix of respected long-tenured faculty and selected new recruits. This group will be tested immediately by the array of department chairs, center directors, senior clinicians and researchers whose sense of self includes their entitlement to direct and immediate access at all times so that the dean may listen attentively and respond obediently to their concerns and needs. Like a heat-seeking missile, they will find and exploit any differential

crevice or fissure in attitude or policy between the dean and his or her surrogate associate or assistant deans or other institutional leaders.

4. *Build a modern church-state organization.* The volatility and ruthless competitiveness of the patient-care marketplace facing most, if not all, academic medical centers requires an array of talents to analyze, develop appropriate strategies, and think through implementation processes. A leader must not only attract strong business and managerial talent, he or she must repeatedly underscore and articulate (i.e., explain, defend, preach and model his or her own behavior) to the priestly caste how vital effective church-state collaborations are to the viability of the enterprise. Nor should all this talent be centralized. Push hard to get solid administrative support at the unit levels and to get the academic leaders in those units to pair productively with their administrative support (CFAR, 1999).

Guiding and Developing

5. *Never underestimate an organization's resistance to change.* The dean now heads a federated organization where centers of authority are further distributed by organizational proliferation and through which there run deep church-state tensions. Making something significant happen in this setting requires sophisticated methods that recognize—and to some extent even support—the federated structure of the institution, but at the same time undermine counterproductive Balkanization. Schon (1971, Chapter 2) coined the term “dynamic conservatism” to capture how skillfully and actively people can fight to preserve the status quo. It is much better to hold off on some change than to begin it and not be able to focus enough attention and resources to see it through. Persistence is required to overcome the considerable ability of local units to wait out some new initiative. Look for ways to create new synergies in the seams between departments that engage their collaboration and build a stronger clinical or research presence—neurology, neuro-surgery and radiological oncology, for example, or cardiology, physiology and cardiovascular surgery. Look for windows to signal or introduce change so that some concrete reality amplifies the new direction such as a new building, the physical move of a department, recruiting of a new chair, installing a major new information system, etc. Look for ways to design changes that reinforce each other. For example, a change in personnel with a shift in incentives and an organizational reporting change can be more influential as an aligned package than as a series of individual changes.
6. *Find and call upon allies to help.* An executive needs to develop a strong base of church support well beyond those recruited to the leadership group. Any major administrative move should have some pure church backers outside of the administration. Educate them, perhaps involving them in the wider environment such as meeting with key donors or managed-care organizations. Without church support, it is often wise to put off an initiative until such time as it develops. Care must be taken not to overload the system with initiatives because innovation requires leadership to sustain it. Ideally each initiative

should have a champion other than the executive and a support person or infrastructure on the administrative side. A dean needs support in the university administration and the board of directors, which can become skittish and unpredictable in dealing with large medical center investments and/or deficits. Finally, an executive needs to seek out and support those people inside the organization who recognize the need for leadership or are doing creative things that can be used as exemplars or prototypes of directions for the organization as a whole. In academic medicine talent is strategy. The acquisition of a new chair is often a long-term commitment to a research program or set of clinical initiatives that will shape the potential of the entire institution.

7. *Create tools before plans.* Executives can build and deepen their ability to guide the system by building planning tools or a planning infrastructure rather than particular plans. Thus, for example, by building a base of information that highlights key indicators such as the flow of funds, unit productivity, overhead utilization and personnel allocation, the executive creates a context over time for thinking about the relationship between the parts and the whole. By highlighting which units get what proportion of the funds, how cost and productivity are related and who consumes what proportion of the overhead, the executive highlights the implicit and often poorly understood financial linkages between the units. Some units may resent or fear such information, but over time the steady production of data about system characteristics focuses attention on the executive offices as both the source of data, the potential mediator of any discovered “unfair” distribution of resources, the potential interpreter of complex patterns and the leader in using the data to highlight future trends.
8. *Highlight strategic themes and reiterate them constantly as if it were a stump speech.* The executive can take an even more active guiding role by highlighting a limited number of strategic themes that, if convincing or compelling, can shape local decision making. The theme must be global in character, relevant to most, if not all, the units in the system, but implemented locally by each system in its own distinctive way. It thus respects local units’ autonomy while providing them with a shared focus for action and planning. Thus, for example, “patient-and-referring-physician responsiveness” is a theme that clinical chairs can represent and articulate, but develop strategies in their own ways. The strategic theme of “quality” may function this way in a private company.

A strategic theme’s power to impel action by local units depends on three characteristics:

- a. Linkage to some common external threat to motivate local action, such as alluding to a widely perceived rival as “out-performing us” or identifying major financial trends that jeopardize institutional survival.
- b. Expression of the leader’s charisma that stimulates action by enabling people to identify with the leader and his/her vision for the institution.

- c. Capturing and identifying a developmental tendency common to several key units in the system. The theme labels and articulates what is often emerging “behind the backs” of the institutional actors and, therefore, provides a way in which these units can see their shared future and common interests.

Such strategic themes can be quite powerful when they resonate with some emergent forces within the institution. However, if the leader has failed to tap into some underlying dynamic in the setting, the theme can appear to be artificial, ideological or a cover for some ordinary interest. The best protection against these risks is careful listening and attention to changes already occurring in some units. One of the strengths of loosely coupled systems is that, like the federal political system, the units can be “laboratories of innovation.” The department of radiology, for example, might have worked out effective ambulatory intake processes that can be migrated to other division.

9. *Never underestimate the importance of designing the shape of the table and who is sitting around it.* As the agenda emerges, a system of forums and deliberations can be designed and implemented that bring together the appropriate coalitions around appropriate issues (Gilmore and Barnett, 1996). This can be particularly important in reducing church-state tensions and building church-state collaborations. By thoughtfully constructing various meeting systems and facilitating particular meetings, the executive helps create and sustain the conversations that are inclusive of key subunits and thus serve to engage and integrate the subunits while providing mechanisms for resolving or managing conflicts. The executive office becomes the center for critical conversations. Informal discussions that were once uncoupled from each other are then stitched together over time.

Often a critical group is a steering committee or strategy group. This group is advisory to the sponsoring executive. It should not be constituted as a representative body, but rather as a group of people with thoughtful perspectives who are each willing to wrestle with the difficult issues of integrating the whole, and who have much practical insight into arguments or means of engaging and convincing subunits to cooperate. It should be small in number (six – nine people) and should play the role of stewarding the overall process: framing the issues, deciding what is the right approach for handling the issue (e.g., a white paper, a task force), making assignments of people to workgroups, setting deadlines and reviewing their work. Usually, it is better that they remain an advisory group to the sponsoring executive so that they are somewhat buffered from direct political jockeying.

Ad hoc groups have flexibility of membership that can be crafted around the specific issue. When an ad hoc structure is created, the roles and relationships with existing elements need to be thought through carefully. Is the charge to the group to produce a single recommendation, develop options, assist with implementation, etc.? Who does it need to consult with? Who eventually will have to approve their recommendations? Staff groups constituted to provide support and data collection can be especially important in systems where there is little reliable, well-respected, pattern-level information and where many church groups are woefully under-supported by solid staff support. Workshops

or focus groups can often serve to elicit important perspectives without making the longer-term commitment to establish an ongoing group.

10. *It helps to put your money where your mouth is.* The leader of an institution often plays a key role in major fundraising with wealthy individuals, foundations, corporations and government agencies (other than institutions like NIH where peer review funding is the rule). The ability to identify potential major donors that can be stimulated to support a dean's primary interests or emergent themes or innovations within the institution is a unique source of power and influence.

Most new money, however, is likely to be found money. Merging or phasing out units, processes and systems that have become ineffective offers the potential to release new resources. Loosely coupled systems are notoriously asymmetric in that they can create new elements with much greater ease than they can stop existing ones. Selective cutting is, of course, a risky move under almost any circumstance. One risk avoidance method to be wary of is leaving old structures in place while creating a new entity for achieving integration (e.g., a new curriculum or patient-centered care system or a joint research-clinical institute). Frequently, however, such a strategy absorbs, rather than generates, new energy and resources since the two systems compete and prevent either from being successful.

In sum, an executive leading an academic medical center can guide and steer it in several different ways.

Protecting the System

- Identify and manage issues that either portend a crisis or offer significant improvements.
- Preserve or create a climate of fairness and transparent decision making.
- Monitor and address rate-limiting conditions, constraints or factors that affect all units in the system.
- Build a management team representing both church and state that can serve as surrogate decision makers to fulfill the administrative and managerial expectations of an executive.

Guiding, Developing, Directing the System

- Look for opportunities to project, dramatize and reinforce change.
- Find and use allies other than the administration of the medical center to support and lead change.
- Build a planning infrastructure to focus on the flow of reliable information and the design and orchestration of meetings and other structured conversations.

- Develop and project a few key strategic themes that have meaning for the system as a whole but are implemented locally by the units. Look for emergent forces or innovations within the medical center to be found and championed.
- Lead by allocating scarce resources (e.g., new outside funds) that cannot be spread evenly over the units. In addition, (this is a more challenging task) find resources by consolidating or phasing out exiting units and activities.

Finally, there are many implications to draw from these strategies with respect to the style and special skills of leadership in academic medicine. We leave the reader with the following initial list.

Some Critical Leadership Attributes for the Challenging New World of Academic Medicine

1. Tolerating regression without becoming immobilized, defensive or hostile. Being patient with the unevenness of developmental processes, particularly people's reactions to them. The ability to contain immediate responses of frustration.
2. Tolerating ambiguity. Knowing when to leave some issues open to assure that people struggle further with them or develop their own approaches.
3. Insisting on focus, a handmaiden of tolerating ambiguity. Knowing when to set some limits, guidelines and force closure on issues.
4. Articulating the authority structure, or lack thereof, and helping to negotiate who will play which roles and responsibilities in planning or redesign processes.
5. Thinking in and leading large groups in particular, containing their anxiety about the group flying apart so that people can honestly acknowledge differences yet still remain connected.
6. Framing skills. Taking complex wholes and decomposing or breaking them down into parts that can be the subject of work and attention and yet do not do violence to the integrity of the whole.
7. Imparting a strong sense of what is enduring across discontinuity so that people can cope with change by having some sense of stability.

Bibliography

- CFAR. "Briefing Notes: Productive Pairs." Philadelphia, PA: CFAR, 1999.
- Cohen, Michael and James March. "Leadership in an Organized Anarchy." *Leadership and Social Change*, eds. William Lassey and Richard Lassey and Richard Fernandez, University Associates, 1976.
- Delbecq, Andre L. and Sandra L. Gill. "Justice as a Prelude to Teamwork in Medical Centers." *Health Care Management Review*, Winter 1985, pp. 45 – 51.
- Dror, Yehezkel, "Memo for System-Reforming Rulers." *Futures*, August 1989.
- Gilmore, Thomas. *Making a Leadership Change*. San Francisco: Jossey-Bass, 1989.
- Gilmore and Barnett. "Designing the Social Architecture of Participation in Large Groups." *Journal of Applied Behavioral Science*, Vol. 28 No. 4, Dec. 1992, pp. 534 – 548.
- Hirschman, Albert O. "Development Projects Observed." The Brookings Institute, 1967.
- Maister, David, oral presentations.
- McCaskey, Michael. *The Executive Challenge: Managing Change and Ambiguity*. Boston: Pitman, 1982.
- Orton and Weick. "Loosely Coupled Systems: A Reconceptualization." *Academy of Management Review*, 1990, Vol. 15, No. 2, 203 – 223.
- Schon, Donald A. *Beyond The Stable State*. Random House, 1971.
- Williams, Albert P., et al. *Managing for Survival: How Successful Academic Medical Centers Cope with Harsh Environments*, October 1987.

For more information on this or related materials, contact CFAR at info@cfar.com or 215.320.3200, or visit our website at <http://www.cfar.com>.