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ABSTRACT

The organization and administration of colleges and universities are discussed in 10 papers representing varied perspectives of the most current theories of organizational behavior. Titles and authors are as follows: "Maps and Gaps in the Study of College and University Organization" (James L. Bess); "Contradictions in a Community of Scholars: The Cohesion-Accuracy Tradeoff" (Karl E. Weick); "Models of the Organizational Life Cycle: Applications to Higher Education" (Kim S. Cameron, David A. Whetten); "Motivation Research Versus the Art of Faculty Management" (Barry M. Staw); "Motivation Enhancement Through Work Redesign" (Greg R. Oldham, Carol T. Kulik); "Job Satisfaction and Role Clarity Among University and College Faculty" (Edwin A. Locke, William Fitzpatrick, Frank M. White); "Leaders and Leadership in Academe" (Victor H. Vroom); "Decision Style and Organizational Behavior: Implications for Academia" (Michael Driver); "Strategy Formation in the University Setting" (Cynthia Hardy, Ann Langley, Henry Mintzberg, Janet Rose); and "Doing New Things in Old Ways: The Chains of Socialization" (John Van Maanen). (SW)

COLLEGE AND UNIVERSITY ORGANIZATION

Insights from the Behavioral Sciences

James L. Bess, Editor

CONTRIBUTORS

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PREFACE

This book originated in a special project commissioned jointly by the Association for the Study of Higher Education, New York University and the Exxon Education Foundation. Planned as a summer issue of the *Review of Higher Education*, a tri-annual journal of research and scholarship on a variety of subjects concerning post-secondary education, the subject matter was intended to include primarily the domain of organization and administration of colleges and universities. As the manuscripts for the journal were being prepared, however, it became clear that the depth and richness of the material demanded an expanded number of papers and some that were longer than typical journal length. It also became evident that the audience for such a collection might well include those engaged in the research and study of organizations in general, rather than just institutions of higher learning. The nine papers thus assembled are comprised of some pieces from the journal and some completely new material. All are oriented toward the very special field of college and university organization viewed from the varied perspectives of the most current theories of organizational behavior in general. Those interested in either higher education or organizational theory will, it is hoped, find this collection both innovative and informative.

James L. Bess

ACKNOWLEDGMENTS

I am indebted to many who stimulated me to put together a collection of this sort. My colleagues at New York University have been arguing for an alternative approach to the study of educational organizations. To some extent, this volume is my formal response to their proposals. I am grateful also to N.Y.U. for its generous financial backing of the summer issue of the *Review of Higher Education* and to the Exxon Education Foundation for providing funding assistance for the expansion of this issue and for the book edition.

The Editorial Board of the Association for the Study of Higher Education, under the leadership of James Morrison, was most supportive of my efforts. I appreciate the confidence of its members in my editorial abilities. The Editor of the *Review*, John Smart, provided continuing assistance, not only in organizing the quick turnaround of reviewers, but in his warm and generous comments on the project as a whole. I much appreciated his humor and encouragement throughout the length of the editing process. The task of guiding the journal manuscripts into the book form was more than ably managed by Colin Jones, Director of the New York University Press. I thank him for his help.

Many readers assisted in the evaluation of the first drafts of the manuscripts. I am grateful for the helpful comments provided by John Thelin, Pat Terenzini, John Braxton, John Muffo, Sheila Slaughter, and especially Jack Schuster and Bob Silverman.

J.L.B.

MAPS AND GAPS IN THE STUDY OF COLLEGE AND UNIVERSITY ORGANIZATION

James L. Bess, Editor

Twenty years ago, the Western Interstate Commission on Higher Education sponsored its fifth Institute on College Self Study (Lunsford, 1963). The insightful volume in which the papers for that institute were collected represented a dramatic effort to reveal the scarcity of extant theory about college and university organization and administration and an attempt to begin to fill that gap. What is surprising, and in some ways sad, is that many of the ideas from the book continue today as the guiding premises we use in thinking about the field. While the authors drew heavily and wisely on the literature, their sources were largely political science, sociology, and history. In the theoretical writings about college organization, we still have only minimal representation from the prodigious literatures in organizational behavior, especially industrial and organizational psychology (Peterson, 1974). Fewer than a half a dozen books on the subject reflect awareness and use of current research, and even these tend not to utilize theory in explicating the organizational phenomena of interest. There is, of course, a considerable literature on "governance", some of it quite insightful. But the major portion is simply (sic) descriptive, and most draws its major theoretical base from political science, primarily policy analysis.

The Paucity of Theory

There are several reasons for this. The first is that the field of organizational behavior has undergone a significant transformation in the last twenty years, as researchers have come to identify and

James L. Bess is professor of Higher Education at New York University

understand the complexities of contemporary organization. Increasing numbers of contingencies enter into the models used to describe organizational behavior. As Pfeffer notes, the field seems now to resemble a weed patch rather than a well tended garden (Pfeffer, 1982, p. 17; cf. Koontz's "jungle" metaphor, 1980; also Mitchell, 1979; Cummings, 1982). Further, there has been a rather obvious (and perhaps expected and necessary) preponderance of organizational research that accepts the prevailing paradigms and adds to the explanation of the variations in behavior, rather than research that seeks to discover new paradigms. Perhaps this mirrors the alleged short-run orientations of the American middle and upper managers who attempt to maximize annual profits to the detriment of long-term institutional and human resource building. At any rate, the organizational theory literature has proliferated leaving many outside of the field (and often those within) with inadequate or competing explanatory models.

There is another reason that theory from the organizational behavior field has not been brought to higher education as freely as one might expect. Researchers studying the organization and administration of colleges and universities are generally under some pressure to produce findings that can be put to immediate use in practice (cf. Dubin, 1969). Speculation or theory building for its own sake is a luxury apparently not to be encouraged in the field of higher education. As Carol Weiss notes:

> The imagery of research use that undergirds the disillusionment of observers appears to be the direct immediate application of the results of a social science research study to a particular decision. The expectation is that specific findings point to a specific answer and that responsible policy makers proceed to implement that answer in policy or practice. Research makes a difference, in this formulation, only if it changes a decision from what it would have been had there been no research to one fully in accord with what the research results imply should be done. The "use of research" is thus discernible, clear to the naked eye. Observers are disappointed, and occasionally vitriolic, because they see few phenomena that meet these specifications. (1980, p. 10)

The strain toward practicality is especially pronounced in higher education circles. Almost invariably, leadership in colleges and universities is comprised of a academics who have made their ways up the administrative ladders by virtue of demonstrated success in problem solving. At least normatively, they have been successful. By some external criteria, on the other hand, their decisions may have been

ineffective and certainly inefficient. "Problem latency" (Cohen & March, 1974) in these institutions seems inordinately long (though the extended governance processes may be functional in this setting). Nevertheless, practicing college administrators tend to look skeptically at social science research about organization and administration—or are psychologically predisposed not to look at all. Certainly, they tend to find abstract theory of very dubious value. (To be fair, the problem is often exacerbated by researcher-theorists who are unwilling to modify their recondite language to make it "user friendly".) Further, the low or non-existent budget allocations for institutional self-evaluation are most frequently used for satisfying external accrediting agencies whose criteria of organizational evaluation are exceedingly shallow. Membership on visiting teams is comprised of working academics who have no interest in organizational theory.

In sum, if researchers on the organization of colleges and universities were to make more frequent original and/or abstract contributions to theory, the problem of finding readers would be even more significant than it is now. This is in some contrast to many industrial organizations where the linkages between theory and practice have been more closely articulated. One reason for this more intimate relationship is that many industrial managers—at least in the larger corporations—have advanced degrees in management and are receptive to the idea that theory may have something to say to them. Indeed, the success of increasing numbers of industrial/organizational psychologists, OD (Organizational Development) consultants and in-house departments of QWL (Quality of Working Life) is demonstrable evidence of the utility of social science. While practitioners of these trades may press for changes with arguments that hinge heavily on practical improvements in operations, these arguments tend to be backed up with theory that is often made explicit. More, it finds its way back into the theory literature, having been tested and revised in the field.

Still a third reason why the field of organizational behavior has not had an impact on research in higher education is the scarcity of researchers both with training in the field of organizational behavior and interests in college operation. Added to this is the absence of a visible "community" of scholars. There is no journal devoted exclusively to issues of organization and administration of colleges and universities (though the little known *International Journal of Institutional Management in Higher Education* perhaps comes closest). Occasional writings about the subject must be assiduously sought after in scattered journals with diverse topical orientations and readerships. While there is a Special Interest Group at the American Educational Research Association, its membership is almost exclusively comprised

of researchers in the field of elementary and secondary education. The consequence of the lack of a nexus of communications among active scholars is that few new ones take an interest in writing in the area. When there is no critical mass of scholars arguing with one another across the scholarly journals, the field is viewed as singularly jejune—appearing to lack importance and providing little in the way of either cosmopolitan or local rewards. Of late, there has been some increase in interest in university organization among researchers in graduate schools of business, particularly in the sub-area of budgeting and power distribution; but the richness of the field of organizational behavior as it is manifested in higher education continues to be largely ignored.

Another constraint on the development of more studies on college and university organization is the alleged uniqueness of the academic setting. While the unusual aspects of the environment of higher education might be construed as a challenging field of inquiry, in point of fact, the opposite has been the case. Colleges, and particularly large, complex universities, appear as inscrutable to researchers as Japanese businesses apparently are to the naive Westerner who seeks to collaborate with them. There are, to be sure, mysteries of different natures to be solved (e.g., the influence of tenure and the delicate, unarticulated balance between academic and administrative decision making, to name just two), but for reasons unknown, there is a reluctance to move into these complicated domains.

Finally, appropriately, one might use theory itself to explain the absence of researchers in the field. James March (1982), for example, suggests that organizational theory has proceeded thus far largely on assumptions of bounded rationality and the maximization of desired organizational outcomes. Under this notion, people in organizations are alleged to make decisions that are instrumental to known objectives. March suggests that a correlate of the theory is that when personal aspirations are achieved, "the search for new alternatives is assumed to be modest, slack accumulates, and aspirations rise. Conversely, when performance falls below aspiration, search is stimulated, slack is decreased, and aspirations decline." While it is difficult to apply this hypothesis to the research function in universities, it might be said that the low receptivity to intrepid personal research excursions into the field of college and university organization has, over time, caused a reduction in aspiration level. The relative stability of the "market" or environment for research has rendered the field rather static, and few save the bold or foolish have ventured into it.

Organization of the Volume

There are nine chapters in the volume, each representing a rather circumscribed domain of interest and inquiry. One stimulus for the choice of topics and authors to be included stemmed from the need to provide an introductory primer in organizational behavior for use by would-be administrators of colleges and universities. A survey of current OB (Organizational Behavior) texts yields a diversity of topics, as does a review of relevant journals (see, for example, Clark, McKibbin & Malkas, 1981). A search for commonalities among them invariably reveals a set of themes roughly twice the number of those included herein. This is not to say, of course, that identification of common topics in published texts alone makes for an insightful choice. All of the text authors could be simply creating cousins for one another's offspring, none of which is legitimate. Nevertheless, the nine subjects chosen seemed persistently to have the attention of those who claim to try to order the field in some way. There are obvious omissions—e.g., organizational development, effectiveness, communications, groups, and a number of significant others. Space limitations demanded some discretion. To some extent, of course, the choice of both topics and authors was a result of propitious availability. The most respected and insightful of published authors have cycles of involvements and commitments to many projects. Hence, there was some luck and chance in securing the assents of those persons whose works do appear here. Indeed, there is much room for a second and third collection, covering different topics authored by others of equal renown.

Starbuck and Nystrom (1981) liken the process of selecting topics for a handbook to the staging of a Derby that includes both thoroughbreds and dark horses. (Metaphors do seem particularly helpful here, as Weick, 1969 and Monson, 1967, have noted). The handbook editor hopes that all will win—or even break the track record. Different editors have different purposes, but in this collection, we, again, with Starbuck and Nystrom, hope "to capture much of the heterogeneity of organizational theorists at large." Indeed, each of the papers can be assumed to stand alone. No attempt was made to select a set of either topics or authors that represents an integrated perspective on organizations or organizational theory. As will be seen later, the contrasting approaches that resulted from this attack make for interesting speculation.

Contents Précis

Karl Weick's chapter leads off the collection, partly because it addresses an issue that is fundamental to the understanding of colleges and universities. Even in the best of institutions, he suggests, structural, processual and normative-cultural aspects of the community of scholars are precariously balanced. The tradeoff between collegiality and independence of thought and action can be considered a matter of organizational design and strategy and thus requires some very careful thought by those who would lead our institutions of higher learning.

The paper of Cameron and Whettern is similarly global in scope. These authors seek to explain the complexities of organizations as they move through predictable life cycle stages. They point out how the criteria of effectiveness are often seen to shift, and they suggest that the types of management needed in one stage of development may not be the same as those needed in other stages. The dynamics of transition through crisis conditions and crisis resolutions are usefully explicated.

The next three papers are concerned with what traditionally has been called "personnel" issues, though these papers resist such classification. Staw's "short tour" of motivation theories leads him to a close examination of the utility of contingent reward schemes and the relationships between intrinsic and extrinsic rewards. Staw's further discussion of organizational motivation and prosocial behavior (alluding to style of Japanese management) contrasts interestingly with the positions of Weick in the first paper.

Oldham and Kulik are concerned with some of the same motivational issues but explore the possibilities for job redesign for faculty. They utilize concepts developed through research in other settings—task identity, skill variety, task significance, autonomy and feedback—to examine administrative strategies for enhancing faculty motivation.

Job satisfaction and role clarity are the subjects of the paper by Locke, Fitzpatrick and White. Using newly collected empirical data, these authors identify three criterion and eight job factors that significantly affect faculty job satisfaction. A number of implications for management and organization follow from their findings, including a suggestion for differentiated faculty staffing and multiple tenure tracks.

The final four chapters deal with the decision making processes in colleges and universities, primarily at the upper management levels and with the subtle, often non-cognitive influences on decision-making at both the organizational and individual level. In "Leaders and Leadership in Academe", Victor Vroom reviews four key contingency theories of leadership and contrasts the predictions that would follow

from each if applied to problems in higher education. The paper reveals the kinds of leader characteristics and leader behaviors that may be considered appropriate according to the theories. Vroom also offers some new perspectives on the relatively neglected tasks of leadership that involve relationships with other than subordinates. The Driver chapter explores the match between preferred decision styles of faculty or academic managers and the structural and situational demands of the organization. Driver points out how important the "person-job fit" is in the staffing of leadership positions, particularly as significant changes in external forces push administrations in one direction and faculty in another. Hardy et al. view organizational strategies as patterns in action, and, accordingly, seek to comprehend how decisions are made in universities. Decisions by professional judgment, by administrative fiat, and by collective consensus or negotiation are discussed, as are the phases of interactive decision-making. New interpretations of the meaning of concepts such as collegiality, politics, and "garbage cans" offer new insights into how the common good may be pursued in universities.

The final paper, by John Van Maanen, challenges the prevailing notions that the work setting constitutes the prime determinant of organizational behavior through the dominating socialization and professionalization processes. Van Maanen suggests instead that workers bring with them a "culture of orientation", as they import skills, knowledge and values learned previously. These latter lay the groundwork for orientations and behaviors that may fit in or conflict with the expected organizational behavior patterns or with colleagues with different prior chains of socialization. Understanding the natures of prior socialization helps to explicate some of the mysteries of behavior in colleges and universities.

Approaches to the Classification of Theories

Needless to say, theories of organization applicable to higher education can themselves usefully be analyzed and the different approaches ordered in some coherent pattern. This is not to suggest that theories of organization in general can be readily cast in some neat set of relationships to one another—though such integrating frameworks have been essayed from time to time with some success (e.g., Katz & Kahn, 1978; Nadler & Tushman, 1977; Thompson, 1967; March & Simon, 1958). It is only to indicate that in any attempt to fill an alleged gap in the literature, one must have some notions of where contributions might fit

in. Certainly this is the case for a volume of papers that presume to say something about the field of organizational behavior in colleges and universities.

While too much rigorous theorizing about the nature of and patterns in the field will not be useful, it may be helpful to demonstrate how the nine papers contained herein might be represented in various organizing frameworks. Three possibilities are suggested below.

The first takes the fairly straightforward textbook approach that generated the order in which the papers appear in this volume. As will be evident, there are important gaps that need to be filled. (See Table 1.)

As an alternative to this rather traditional approach that commonly surveys a number of topics without systematic integration, one could adopt a functionalist perspective, using, for example, the theories of Talcott Parsons (1951). On the assumption that all organizations, qua systems, must attend to four functional prerequisites, it is possible to consider the realms of organizational behavior to which the authors have addressed themselves by casting the chapters in the patterns as noted in Table 2.

From this viewpoint, in addition to more studies in each cell, a number of important domains stand out as needing to be addressed. The model suggests, then, another diagnostic map for research approaches to the study of the organization of colleges and universities.

By way of further illustration of gaps in our understanding of the subject, a third model, developed by Jeffrey Pfeffer (1982), can be fruitfully utilized. The model is built upon two criteria—the nature of the assumptions of theorists about the basis of human action and the levels and units of analysis (cf. Dubin, 1969). The nine papers can also be set in this framework (though, as above, some injustices may be done to a number of contributors whose work can not be so neatly pigeonholed).

Pfeffer's model for understanding alternative approaches to organizational theory begins with a "perspective on action." He notes:

> A critical dimension distinguishing among theories or organizations is the perspective on action adopted, either explicitly or implicitly, by each theory. The three perspectives seen in the literature are: action seen as purposive, boundedly or intendedly rational, and prospective or goal directed; action seen as externally constrained or situationally determined; and action seen as being somewhat more random and dependent on an emergent, unfolding process, with rationality in the second and third perspectives being constructed after the fact to make sense of behaviors that have already occurred. (1982, p. 5)

Table 1

The Traditional Topical Map and Gaps

System States	
Environmental conditions	*
Systems theory and systems analysis	*
Effectiveness	*
Goals	*
Quality and climate factors	Weick
System state changes	Cameron & Whetten
Structure	
Modes of division of labor	*
Vertical and horizontal integration	*
Centralization	*
Organizational design	*
Job design	*
Transformation Processes	
Technology	*
Strategy formation	Hardy et al.
Planning	*
Leadership	Vroom
Decision-making	Driver
Participation	*
Control	*
Conflict	*
Information theory	*
Communication	*
Human Resource Management	
Recruitment and placement	*
Rewards	*
Motivation	Staw; Oldham & Kulik
Satisfaction	Locke et al.
Professionalization & socialization	Van Maanen
Groups and informal organization	*
Organizational development	*

*Represent other topics that could be usefully explored in higher education research.

Table 2

A Functionalist Topical Map and Gaps

Functional Prerequisites	Orientation	
	Process	Structure
Adaptation	Vroom; Driver	Hardy et al.; Oldham and Kulik
Goal attainment	Cameron and Whetten	*
Integration	*	*
Latency	Weick; Shaw; Locke et al.; Van Maanen	*

*Represents other topics that could be usefully explored in higher education research.

The perspectives reflect important and relevant assumptions of researchers about the causes and explanations of human behavior. The perspectives, in addition, direct researchers to certain kinds of problems, as well as serve to guide researchers' decisions about methods of inquiry and interpretation of data. The other dimension in the Pfeffer scheme has to do with levels and units of analysis. Where researchers focus their attention has an important impact on the conclusions to be drawn about organizational behavior. The choice also constrains the predictive potential of the theories (e.g., limiting arguments about specific colleges when the institution becomes the unit in data analysis).

Pfeffer suggests that the perspective and level of analysis chosen have implications on the translation of research into practice. Hence, it is useful to identify the assumptions of the group of authors included in this collection. For example, Pfeffer notes that the "rational, goal-directed perspective on action presumes that administrative activity impacts firm performance" (1982, p. 10). That is, there is an assumption (not an hypothesis) that administrators have the capacity to change their institutions. The second perspective, the situational constraint point of view, presumes that management is relatively impotent,

having at best an opportunity to clarify the relationship of the organization (or person) to changing situational demands. The third perspective suggests that the role of the leaders "is to present the advocated decisions and activities in a meaningful and sensible way to organizational participants, so that a social consensus and social definitions around these activities and decisions may be developed" (Pfeffer, 1981, p. 188).

Casting the authors in this collection in the Pfeffer framework might result in something like the following:

Table 3

A Freedom/Determinist Topical Map and Gaps

Level of Analysis	Perspectives on Action: Purposive, Intentional, Goal Directed, Rational	Perspectives on Action: Externally Constrained and Controlled	Perspectives on Action: Emergent, Almost Random, Dependent on Process and Social Construction
Individuals, coalitions, or subunits	Oldham & Kulik Driver Locke et al. Vroom	Staw	Van Maanen Hardy et al.
Total organization	*	*	Cameron & Whetten Weick

[1]Adapted from Pfeffer, 1981, p. 13.

It would be pleasant to assume exceptional editor foresight in arranging the spread of authors through the cells in this table—thus revealing alternative approaches and their implications for higher education. Alas, the analysis was done *post hoc* on the papers submitted, and mere chance sorted them in this way. Nevertheless, the differences in assumptions does give the reader an opportunity to compare the perspectives. Equally important, it permits would-be researchers to see where more work is needed and to make choices as to the assumptions which might be taken.

The papers do come in conflict in a number of ways and the Pfeffer schema perhaps best helps understand why. To illustrate with only a

few examples. Weick, in his chapter, suggests that academic organizations need to sacrifice cohesion for accuracy, while Staw indicates that we need more attention to the collectivity as a source of rewards (though without sacrificing intrinsic motivation). Another instance—Van Maanen notes that orientations to organizations depend on prior socialization; hence, there are limits to organizational design. On the other hand, Locke et al. argue for a differentiated staffing, and Oldham and Kulik posit the clear need to manipulate the design. Or, still a third example—Driver says decision making style is fixed, while Vroom suggests that decisions are (or should be) contingent on the situation and Cameron and Whetten propose that administrative style must change with the environmental contingencies. These few contrasts demonstrate rather vividly how little we still know about how colleges and universities operate. The maps reveal some well-traveled roads and a few unmarked trails and footpaths. They all may lead to some understanding, but a great expanse remains to be explored.

Purposes of the Volume

As noted earlier, March (1982) hints that the view of organizations as goal-seeking entities may be misleading. In point of fact, he notes, most individuals in organizations behave in ways intended largely to give order and meaning to their lives. They seek from the organization, as well as from other settings, a *Weltanschauung* that will relieve in part their anxieties about the complexities and uncertainties they are experiencing. Seen in this framework, organizations are "arenas for symbolic action", or as justifications for believing that participants' faith in the "right" order or behavior is appropriate. More specifically, workers want to be sure that decisions are logical and consistent with organizational objectives, not because doing so will maximize organizational achievement, but because it will mitigate the personal anxieties of uncertainty about choice.

This collection of papers might be construed as just such an enterprise. It is a symbolic statement of faith that theory does have a place in the understanding of colleges and universities. At this still inchoate state in the development of theories of organization and administration of institutions of higher education, we can do little more than attempt to give the field a refreshing new salience—an aura of excitement about possibilities.

Fragmented fields of knowledge often prevent scholars from communicating with one another. Their uniqueness and separateness interferes with the fecundating stimuli that each domain may have on the other. In this collection of nine essays, behavioral scientists from the theoretical and applied field of organizational behavior extract from

their sub-specializations the most virile of the theories that could and should spawn new insights in another field—the field of organization and administration of colleges and universities. The reconceptualizations generated for this purpose should also prove provocative for those engaged in research on non-academic settings. We would thus hope that both theories and higher education will be mutually advanced.

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SYSTEM STATES

CONTRADICTIONS IN A COMMUNITY OF SCHOLARS: THE COHESION-ACCURACY TRADEOFF

Karl E. Weick

The phrase "community of scholars" contains a contradiction. Actions that strengthen the community weaken the scholarship. And actions that strengthen the scholarship weaken the community. Continuing tradeoffs between community and scholarship produce many of the unique organizational properties that universities exhibit.

The basic thesis of this essay is that social ties limit and bias the portrait of the world that groups develop. These limits and biases are especially threatening to universities because valid knowledge is central to their identity and existence. The production of valid knowledge is the comparative advantage of a university and that holds true whether the knowledge is disseminated to students, academics, or practitioners.

Both threats to validity and threats to cohesion can undermine the university. If cohesion dominates validity, the university persists but its claims to accuracy become no stronger than anyone else's. If validity dominates cohesion, the knowledge retains its edge in accuracy, but continued production becomes doubtful.

The strange organizational arrangements found in universities can be understood as emergent structures that incorporate a basic ambivalence toward cohesion and accuracy. They are structures that hedge a commitment toward full development of either and direct attention back and forth between each continuously. When demands for cohesion and accuracy clash, compromises usually favor accuracy at the expense of cohesion. Universities are more willing to give up more cohesion, sooner, than is true in other organizations, because cohesion

Karl E. Weick is Nicholas H. Noyes Professor of Organizational Behavior and Professor of Psychology at Cornell University.

poses a greater threat to their legitimacy as producers of valid knowledge.

Sources of Differentiation in University Organizations

The property of university organizations to which we wish to pay most attention is the high differentiation and low integration that exists among the parts of a university. This structure occurs because cross-departmental linkage is done on an individual basis, feedback is unreliable, decisions do not require consensus, and research technology constrains departmental forms.

Person-Specific Linkages

Linkages that occur within universities tend to be person-specific and occur among units of very small size. At the most molecular level, linkages among research, service, and teaching are presumed to occur *within* the single individual, a presumption found in few other organizations. "What is assumed without sufficient examination is the notion that the linkages among the functions can only be made 'intra-personally'. It is assumed that the communication of the messages and products produced in the various functions—teaching, research, and public service—can only be accomplished by an individual as he/she thinks through the impact of one on another" (Bess, 1982, p. 69). Presumably, everything fits together better within one head than it does among several heads. The tight linkages within universities occur within single individuals.

Every other connection that occurs outside a single head is looser, more intermittent, weaker. Multiple actors within universities don't share many variables. And those variables they do share, are weak. Bess (1982, pp. 81, 82) notes that most coordination that occurs across departments within the teaching mission of the university is accomplished by the students, not the faculty. Among faculty, there are only occasional meetings of committees to manage cross-department linkages.

The sparsity of lateral linkages is reinforced by the norm of academic freedom (minimal interference from outsiders). There are few sanctions against people who refuse to participate in university governance. Governance within universities does not make great demands on people for commitment, social skills, deference, exchange, monitoring, dependency, or interdependence.

The extreme degree of individualism found in universities is reinforced because when linking is important, individuals rather than

administrative units are supposed to do it. A dean, the senior person in an area, the expert on a topic, the person who has least status, or the person with extra time are chosen for locally idiosyncratic reasons to represent larger interests, which themselves are not homogeneous. The resulting contacts become links between individuals rather than links between administrative units and the resulting "commitments" become difficult to implement because there is little agreement on their importance. There are coordination mechanisms that can be activated to deal with "important" issues (e.g. Dean's council, Psychology coordinating committee, school policy committee) but dedication to the validity of knowledge leads most individuals to define most issues as relatively unimportant.

This differs from other industrial organizations where coordination is a specific responsibility assigned to specific units. "Linkages across the multiple missions of the fast growing universities were expected to be accomplished by the individual workers themselves. The faculty member was to provide the coordination and collaboration across missions. Whereas, in industrial organizations, such interdependent departments as sales and manufacturing are linked, as noted previously by bureaucratic mechanisms, in colleges and universities, where the separate functions are not divided into different departments, the linkage is thus performed by and within the individual" (Bess, 1982, p. 66).

Flawed Feedback Linkages

Faculty in universities operate on the basis of delayed, confounded, feedback. The effects of teaching styles, reading assignments, wording of questionnaire items, contracts with research subjects, attentiveness to targeted alumni, all are usually known only after considerable time has elapsed and numerous events have intervened which "explain" the actual outcomes. The only kind of learning that is likely to occur is superstitious learning. Superstition is evident when people perform elaborate rituals to produce good outcomes because some unknown piece of the ritual has produced the outcome in the past, though no one knows for sure which portion it is. Furthermore, no one is willing to edit the ritual for fear the crucial portion will be excised. Therefore, elaborate procedures (graduate admission reviews, curriculum planning, meetings about faculty manuals) are retained rather than tested, and little learning or pruning of the ritual occurs. Faculty sag under the weight of their superstitions, but have few incentives or guides to amend them.

Consensus-Free Decision Making

Differentiation without integration often occurs because faculty either cannot agree on means-ends linkages and goals (e.g. arts college faculties) or agree completely on both means-ends linkages and goals (e.g. professional school faculties). While that generalization smooths over considerable conflict within departments, it coordinates university decision making with one of the more influential typologies in organizational theory (Thompson and Tuden, 1959). When people disagree about preferences and means-ends technology, the only way to make decisions amidst so much uncertainty is by inspiration or an appeal to superordinate symbols (the educated person).

These unifying inspirational visions work best when left fuzzy and open to individual interpretation. Avoidance of specification allows a presumption of consensus that is then followed by idiosyncratic, locally adaptive, disparate actions in the name of the general agreement. Differentiated action is highly visible, the consensus behind that action is much less so.

If people agree on both means-end technology and on preferences for outcomes, decision making becomes routine and programmed (computational) and again there is little necessity for consensual, collegial action. People perform their tasks by adhering to standard operating procedures, well developed paradigms, and standard bodies of knowledge, and these routines provide sufficient coordination that additional energy does not have to be devoted to linkage activities.

In cases of mixed certainty, where either technology is clear but preferences are not, or vice versa, people require more discussion, monitoring, and participation to build working agreements. The intense interaction needed to build agreements poses a threat to the continued acquisition of valid information. Consequently, faculty will often drift either toward a state of complete certainty where routines do the coordination or toward complete uncertainty where stirring images do the coordination. Coordination is delegated either to the routines that are on the books or to someone who has a coherent, reasonable, version of what is happening.

Individualized Research Technology

The final property of university organizations that favors differentiation is the prominence of the department as the dominant unit (Bess, 1982, pp. 66-72). The department is not the obvious site for col ·sion-accuracy tradeoffs because there is no such thing as accurate departmental sensing except relative to resource environments within the university. Subunits within departments such as research projects,

research teams, co-investigators, or coherent specialties are all more plausible sites where the contradiction between cohesion and accuracy is felt more strongly.

But departments do come into play when we argue that processes and structures in the larger university organization are emergents of processes and structures that unfold within the departments it houses. Just as the department is the dominant unit within a university and gives shape to the university, research (rather than service or teaching) is the dominant activity within a department that shapes the structure of that department. The technology of research, consisting mostly of individualized, isolated work, tends to dominate the departmental form directly and the university form indirectly (Bess, 1982, p. 67).

If we use Simon's (1962) rule of thumb that ties within hierarchies are tight within and loose between, and if the basic building block within which ties are tight in departments is one or two individuals, then increasingly large aggregations of these small, tight units, will be increasingly loosely coupled as we move upwards from projects to specialties to areas to departments, to schools, to the university. Since tight coupling occurs within such small units in universities, all larger levels are relatively loosely coupled. In industrial organizations, the basic unit within which ties are tight is much larger than the one or two people found in universities.

If pairs of people are tightly coupled, then pairs of pairs will be more loosely coupled. And if, among just four people in a university of 2000 faculty there are already loose ties (their interaction is mediated by few variables, weak variables, infrequent monitoring, loose understandings) then as the units become larger and larger, the ties become looser and looser. This is partly an artifact of the extremely small size of the starting unit within which tight coupling occurs. If tight connections occurred within larger units (i.e. departments, or schools) then universities would be more tightly coupled systems and would look more like non-university organizations.

Differentation and the Cohesion-Accuracy Tradeoff

Differentiated structures are well designed to sense and represent a referent situation such as a problem, an experiment, a text, or a symptom, but poorly designed to preserve, develop, and disseminate the material that is sensed. Structures that are less differentiated, more homogeneous, and more tightly coupled have less difficulty with development and dissemination, but more difficulty with accurate sensing.

These contradictory demands clash repeatedly in universities and

their continuous resolution is the major ongoing process that shapes organizational structure. In this section we describe the ways in which high differentiation facilitates validity but retards cohesion. In the next section, we describe three mechanisms by which the contradiction is managed.

The Nature of Vehicles of Knowledge

Universities are in the knowledge business. The knowledge they produce must be embodied in some substance, some vehicle, some carrier. This property, elaborated by Campbell (1979), Heider (1959) and Weick (1978), becomes crucial because the vehicle has its own nature and limitations that color the information carried by the vehicle. Campbell (p. 183) uses as an example of this process, a mosaic mural made of stone fragments that represents a street scene. The size of the stones, thickness and color of the cement, range of colors available, etc. all impose limitations on the accuracy with which the street scene can be retained. Fewer large stones of a single color bound together by thick opaque glue preserve a less accurate version of the street scene than do larger quantities of smaller stones in more colors bound together by smaller amounts of transparent glue. The vehicle contributes less bias to the representation in the latter case than in the former case.

In general, a medium with a greater number of independent elements that are externally constrained contributes less distortion than does a medium with a smaller number of dependent parts among which there is internal constraint (Heider, 1959; Weick, 1978). Such objects as a contour gauge with more sensors (Weick, 1979, pp. 190-193), boundary people with less similarity, a palette with more colors, film of finer grain, all represent vehicles that improve the accuracy of representations. Invariably the outcome of inquiry is some compromise of vehicular characteristics and the referent attributes. Where validity is crucial, the vehicular contribution must be made as small as possible. However, the vehicular contribution can never be eliminated entirely.

Campbell (1979) describes the relation between the vehicle and the referent this way:

> The vehicular substance that carries knowledge is unavoidably separate from and alien to the referents of that knowledge—the vehicle is a different substance with different characteristics. Complete sensitivity in depiction, reflection, transmission, or recording of the referent is precluded by the structural requirements of the vehicle: For example, if the vehicle is completely flexible it

> lacks the rigidity to hold together the picture it carries. These vehicle-structure requirements produce not only restrictions on fineness of detail, but also bias and limitations of aspect. Keeping the vehicle intact becomes a requirement in rivalry with the requirements of validly mapping the referent. (p. 184)

Translated back into the imagery of this essay, greater differentiation leads to greater sensitivity to the objects being examined, but also to greater danger that what is sensed will not be preserved. Structures that retain sensations also intrude on those sensations and distort them. To build a consensus is often to sacrifice accuracy. If the mission of the university is accuracy, then stabilizing the vehicle that carries accuracy may reduce the very quality it is supposed to preserve.

The Social Nature of Vehicles of Knowledge

Self-perpetuating social systems such as teams, projects, and specialties are the vehicles within universities that register, preserve, and disseminate scientific knowledge. The social glue that holds research groups together works the same way that artists glue works to preserve a street scene in mosaic. The glue in either case can intrude upon and bias the accuracy of the representation.

If a social system is to become a vehicle capable of improving our understanding of the world, it must first become a stable, enduring social system. This means that at first cohesion must dominate accuracy. The system must recruit new members, reward old members, publish results that are read, prevent defections to other groups, find jobs for loyal followers, and appoint facilitators who keep the group together and are rewarded for this even though their cognitive contributions might not warrant such rewards. Cohesion must be assured so that the vehicle persists long enough to gather and retain some knowledge.

Contrasting Social Vehicles: Spence vs. Tolman

A sizeable portion of Campbell's (1979) analysis of the scientific community involves a case study of the psychologists Tolman and Spence, the differences among the social system vehicles that each created—Spence nurtured the social system vehicle, Tolman ignored it—and the fact that students of Spence continued his ideas whereas students of Tolman dropped his ideas, even though Tolman's ideas were demonstrably better. Tolman's better ideas had a more precarious existence because the vehicle carrying them was more shaky.

Campbell focussed on the fact that Tolman defaulted in his leadership:

> by failing to convey to his students the conviction that he offered them a theory worth dedicating their lives to. For a theory to be thoroughly explored, it may be necessary that its followers have an unreasonable, exaggerated faith in the theory's value. Understatement, modesty, or nonpartisan objectivity in estimating one's theory's chances of being true may amount to a default on an essential leadership requirement and result in a promising theory failing to be properly explored, elaborated, or disseminated. (p. 188)

While true believers may develop better theory and affirmation may be a more productive route to theory development than criticism, tight bonding with a theory and with the other people who champion the theory still represents tight dependencies that can reduce perceptual sensitivity. While Tolman may have defaulted in the sense that he sent forth fewer students dedicated to improve his theory, he also succeeded by reducing the social intrusions on the development of the theory itself.

What is most striking to me about Campbell's discussion is the distinct possibility that Tolman's ideas were more valid *because* his social system was tied together more loosely. Campbell does not carry the argument this far, but by adding the idea that perceptual accuracy is a function of the number and independence of sensing elements in a medium, that conclusion seems plausible.

Spence's students worked to create a well-defended group position, to recruit allies, to gain key academic positions, to develop a program of interrelated dissertations, and to gain esteem within the group, all of which had the effect of binding one Spence inquirer more closely to another Spence inquirer. This binding increases the probability that vehicular characteristics will distort representations of referent attributes. Even though there are more members in the Spence team and hypothetically more opportunities for accurate registering of attributes, in reality, the many dependencies shrink the perceptual sensitivity of the group. The vehicle comes to dominate the referent. As a result, the work that is produced becomes harder to replicate and explains a smaller portion of human learning.

Tolman's students, however, are bound together less tightly, which means that they register with more accuracy those settings that they observe. With less intrusion from the social system vehicle, more valid information is registered and retained with the result that a more valid

theory is developed. The theory then generates experiments that are easier to replicate and explanations that handle more variance in the human condition.

Carried to the extreme it could be argued that those explanations that we hear about most often and take most seriously are less valid tha the ones we hear less about. The very features of the vehicle that facilitate the retention and dissemination of information, hinder the accurate acquisition of that information in the first place. Those social systems best connected to deliver impact are most poorly connected to register the events about which they report.

Managing the Cohesion-Accuracy Tradeoff

Any research group must try to meet requirements of group cohesion without sacrificing valid knowledge. There are at least three ways this is done. First, social cohesion is retained but is overlaid by norms designed to neutralize the more severe effects of cohesion on accuracy. This solution seems to be the one adopted by Campbell. The second solution is to reduce social cohesion to the minimum level necessary to sustain a group. Potential threats to accuracy are reduced directly because the vehicle itself is made less intrusive. The third solution is to strive for simultaneous development of both cohesion and accuracy.

Managing the Tradeoff by Norms

For the duration of this discussion we will adopt Homans (1974) definition of norms: "a statement specifying how one or more persons are expected to behave in given circumstances, when reward may be expected to follow conformity to the norm and punishment, deviance from it" (p. 97). Norms that meet this definition can be imposed on a cohesive system to neutralize those offshoots of cohesion that threaten the acquisition of accurate information. Norms that accomplish this decoupling of social system maintenance from accuracy include the following (adapted from Campbell 1979, pp. 192-196):

1. Tradition is a source of error rather than truth; be suspicious of received wisdom;
2. Stubborn, insubordinate, young geniuses are to be listened to even if their ideas go against the prevailing views of older, more established people;
3. Competence rather than likeableness should be rewarded;
4. Contribution to science is the only legitimate basis to bestow status;

5. Punish dishonesty with ruthlessness and finality;
6. Practice competitive replication.

The presence of these norms means that social demands will occasionally be resolved in favor of truth and validity rather than group preservation.

Managing the Tradeoff by Reducing Social Ties

Compromises that favor accuracy can also occur when there is less group to preserve.

Actions to reduce social ties should be visible when academics recruit people who are loners, compose research "teams" with introverts, coordinate activities and pool findings infrequently, tolerate high turnover, design tasks so that people can perform them with relatively little instruction and relatively short apprenticeships, recruit people who have been similarly socialized and who therefore can coordinate and mesh their activities without lots of face to face supervision, assign individual projects that are basically self-contained, reward disagreement and conflict, develop a culture favoring individualism, develop tolerance for inconsistency among findings, instill broad definitions of acceptable work, reward people who "follow their intuitions", encourage publication in diverse sources, remove the stigma attached to eclectic generalist inquiry, use diverse reference groups as comparisons, adopt the fish-scale model of omniscience (Campbell, 1969) as the guiding rationale for inquiry (find combinations of specialties that no one has explored and combine them to see what happens), review performance at infrequent intervals (allow long spans of time within which people can exercise discretion), tolerate loose ties among projects, instill a sink and swim ethic, and delegate authority and responsibility for decision making.

These several tactics minimize the necessity for close attention to the social system by reducing its scope and what is required to maintain it. Norms are not needed to offset social threats to validity because the social threats themselves are minimal. In a thinned system a combination of culture, group composition, division of labor, delegation of authority, and a broad definition of mission create a sensing mechanism with multiple sensors but fewer internal constraints that distort what is registered.

Managing the Tradeoff by Dissolving It

Although we have focussed on tradeoffs, universities obviously would prefer situations where there is both high cohesion and high

accuracy. There are at least two ways in which this is possible, though neither seems especially easy.

First, interpersonal authenticity and self-disclosure often solidify social ties while simultaneously uncovering the reality of interpersonal difference. People feel closer to those about whom they know more and who are seen to be fallible, vulnerable, trustworthy, and reliable. Those revelations suggest that the relationship can withstand the conflict, disagreement, and criticism that invariably accompany efforts to secure accurate information. With those interpersonal assurances in place, sociability remains high yet the unit does not lose its capacity to get accurate information.

Second, well-developed paradigms (Lodahl & Gordon, 1972) may impose sufficient cohesion, shared understanding, and guidelines for recognition, that additional social compromises are unnecessary or occur on trivial issues, and people are able to preserve accurate perceptions. Accuracy-cohesion tradeoffs should be less of a problem in departments that work with more fully developed paradigms.

Conclusion

Several implications are suggested by the preceding line of argument. Prior to describing some of these implications, the key ideas are reviewed.

Review of Key Ideas

A community of scholars is an incompatible mixture of pressures toward cohesion and accuracy that is managed by norms, reduction of social ties, or equal attention to both pressures. Resolutions that neglect accuracy destroy the comparative advantage of universities and encourage cult solipsism. Resolutions that neglect cohesion destroy the retention and improvement of accurate knowledge and encourage anomic disorientation.

The basic organizational structure of a university, which is characterized as high differentiation and low integration, can be understood as a structure that incorporates ambivalence toward cohesion and accuracy. A preference for cohesion is reflected in the mythology of a collegial community, a preference for accuracy is reflected in the mythology of the independent scholar. To be a community is simultaneously a good thing and a bad thing. To become linked with other investigators both improves and weakens inquiry. Structural ambivalence is reflected in processes that treat both definitions as true.

Intersubjectivity

Intersubjectivity appears not to be the simple guarantee of validity that is usually assumed in discussions of scientific practice. The social processes that sustain a collective long enough for it to deliver multiple readings of data tend also to homogenize the perspectives from which those data will read. When homogeneity prevails less is seen.

The extreme case of this progression from accuracy to cohesion is groupthink (Janis, 1972) where cohesion actually replaces accuracy and members agree completely on a view of the world that corresponds to nothing that is actually present. Group superstition becomes elevated to the status of truth without anyone realizing it. Faculties seldom exhibit extreme forms of groupthink, but their strong tendency to close off from the world in the interest of developing a coherent point of view, contains the seeds for just such an error.

The preceding analysis also suggests that intersubjectivity in the form of competitive replication is not an effortless accomplishment when the competitors must stay attentive to one another. To retain minimal social ties takes monitoring, exchange, facilitation, compromise, and deference. Once such social compromises are initiated and expected, they tend to enlarge. With social enlargement go more threats to validity, which leads to efforts to withdraw some of the enlarged social ties and more likelihood that such withdrawal will be misunderstood, and contact will be terminated.

Creativity

The preceding analysis suggests one explanation for the common stereotype that neuroticism and creativity are positively related (Lichtenstein, 1971). Actions that are asocial, unpredictable, brusque, indifferent, and socially insensitive are often treated as signs of neurosis. Those who are creative are often not especially sociable, so they may come to be labeled as neurotic. The grain of truth in the stereotype that geniuses are crazy is the fact that some people intentionally sacrifice cohesion for accuracy.

More generally, the demonstration that eminent scholars retain ambivalence toward social relations (e.g. Wispe, 1963) can be understood as their concern that sociability threatens the quality of inquiry.

Social Skills

There is a perception among field researchers that "nice guys get better data" (e.g. Lofland, 1976, p. 13). The basis for this expectation is the delicate nature of negotiations to gain acceptance in sensitive data

sites. Only the most socially skilled are able to execute such negotiations successfully. Thus, nice guys get better data because they get into more controversial places and learn more from their occupants because they know how to put their informants at ease.

The tidiness of the "nice guys" generalization requires some reexamination given the preceding analyses. Socially skilled likeable, field workers may well get good data when they work alone, but when they work with co-investigators, the close ties that develop may reduce the extent to which they gather accurate data. Furthermore, those investigators who are well-liked by their informants and are drawn in by them, may also get a less objective, less detached, less complete description of what a group is doing (the familiar problem of "going native"). The discovery, when his diaries were published, that Malinowski (1967) was not a very likeable person, can be understood as a case where a field worker traded sensitivity for accuracy and constructed durable descriptions as a consequence.

Universities as Organizations

We have assumed that universities trade cohesion for accuracy, moreso as their legitimacy is grounded in the production of trustworthy, replicable knowledge.

Universities, however, can have their legitimacy grounded in other bases such as vocational preparation, socialization, or credentialing. When these missions are given priority over knowledge acquisition, accuracy-cohesion tradeoffs in decisions such as recruiting, resource allocation, expansion, and reappointments, will likely take a different form than outlined previously. Approximations to accuracy become more acceptable since they are usually easier to comprehend and disseminate. The social system tends to be tied together more intricately with more refined strata. A university where "locals" are prominent, rewarded, and control resources, is a university where cohesion-accuracy tradeoffs have been resolved in favor of cohesion. A university dominated by "cosmopolitans", contains a greater number of resolutions favoring accuracy over cohesion.

Nevertheless, most university organizations can be described as an adhocracy, organic organization, clan, decentralized structure, loosely coupled system, organized anarchy, garbage can, or situation of pooled interdependence. What all of these descriptions share is the specification that modest structure exists. Coordination and control are handled differently in universities than in other organizations. They are given less ongoing attention, fewer design resources are committed to their accomplishment, resources flow towards people who worry about

other things, and responsibilities for control and coordination are vested in very small sized units.

An organizational culture consistent with relative inattention to coordination and control is reinforced within universities. Prevailing themes within this culture include academic freedom, the lonely inquirer, anomie as a necessary cost of doing business, intrinsic motivation as the highest good, heterogeneity as strength, originality as virtue, team research as enemy, creativity favored over synthesis and replication, and the necessity for great men rather than great groups (we need another Freud, Marx, Keynes, Weber, Barnard, Henderson, not, we need another Vienna Circle, Child Experiment Station, Laboratory, for Social Relations, Human Relations Area Files Project).

Although they give little overt attention to social cohesion, universities have persisted as valued institutions. One explanation for this persistence is the manner in which they have managed tradeoffs between cohesion and accuracy.

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MODELS OF THE ORGANIZATIONAL LIFE CYCLE: APPLICATIONS TO HIGHER EDUCATION

Kim S. Cameron and David A. Whetten

The Carnegie Council for Policy Studies (1980) has pointed out that if one takes the year 1530 as a starting point (the year the Lutheran Church was founded), there are 66 institutions that existed then in the Western World and that still exist today in a recognizable form. They are the Catholic and Lutheran Churches, the Parliaments of Iceland and the Isle of Man, and 62 universities. The Commission concluded:

> Universities in the past have been remarkable for their historic continuity, and we may expect this same characteristic in the future. They have experienced wars, revolutions, depressions, and industrial transformations, and have come out less changed than almost any other segment of their societies. (p. 9).

This remarkable resiliency on the part of at least a few universities helps support the contention of Bennis (1964) that the general structure and design of institutions of higher education is much more adaptive and restorative than are traditional bureaucracies and hierarchical systems. That is, they are loosely coupled (Weick, 1976), fluid systems (Cohen & March, 1974) that have a great capacity to survive environmental disruptions.

On the other hand, colleges and universities have no immunity to organizational demise. In fact, the annual rate of death for institutions of higher education is actually higher than for business organizations

Kim S. Cameron is director of Organizational Studies at the National Center for Higher Education Management Systems and David A. Whetten is in the College of Commerce and Business Administration at the University of Illinois.
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and federal government bureaus. Katz and Kahn (1978), for example, reported that business failures between 1924 and 1973 averaged 57 per 10,000 firms. Kaufman (1976) reported a government bureau death rate of 28 per 10,000. Zammuto (1984), on the other hand, found the mortality rate of colleges and universities in the United States to be 117.6 per 10,000 between 1971 and 1981. Moreover, Zammuto also found that the number of deaths among colleges and universities has increased since the early 1970s. He concluded that some kinds of institutions (e.g., small, private comprehensive institutions) may need to be put on an "endangered species list" because of their unusually high mortality rates.

What these statistics point out is that even with the capacity to be resilient and adaptive, many institutions operate in ways that do not take advantage of these capacities, and they subsequently find themselves unable to adjust to environmental changes. When unusual circumstances arise in the environment, some institutions find that they have become incapable of maintaining resiliency.

In this paper we investigate some of the reasons for this loss of resiliency in colleges and universities, and we describe how an understanding of organizational life cycle models can help institutions maintain adaptability under changing environmental conditions. In the following section, we discuss some of the pressures faced by institutions of higher education to become rigid, inflexible, and conservative in the face of threatening environmental conditions. Research findings from several investigations of institutional adaptation to decline are described briefly to illustrate these points. The second section of the paper discusses organizational life cycle models and their applicability to higher education. Issues surrounding the concept of organizational life cycle are discussed, and a summary model of the organizational life cycle is presented as a guide for analyzing institutional adaptation and change.

Lo of Institutional Resiliency

In the last decade, concern for the financial condition of higher education has become ubiquitous. Few institutions or state higher education systems have avoided pressures for fiscal cut-back. Kauffman (1982) indicated, in fact, that current financial conditions are the main worries of colleges and universities.

> The one overwhelming concern which dominates all others in higher education today is MONEY. It preoccupies Deans, Vice

> Presidents, and Presidents as well as faculty. It affects all thinking about the future, as well as the present. The subject of MONEY dominates concerns with student enrollments, tuition policy, the Federal and State role in higher education, the who pays—who benefits debate, admissions standards, arguments over quality, faculty morale, collective bargaining, governance, libraries, the new technology, the future of graduate education and even issues of academic freedom. It is all pervasive. (p. 2)

As a result of their concern with fiscal problems, many institutions of higher education have developed characteristics and have pursued strategies that seem to be resiliency-inhibiting rather than resiliency-enhancing. That is, they have operated in ways during times of prosperity and abundance that have made it difficult to respond effectively to conditions resulting from a changing environment. Moreover, they have sometimes adopted strategies when faced with fiscal stress that are contrary to those prescribed in the literature for successful coping (e.g., Hedberg, et al., 1976; Weick, 1982). For example, several resiliency-inhibiting characteristics that frequently emerge in institutions faced with institutional stress are explained and illustrated below.

1. *Over-expansion during times of abundance.* In their study of several large industrial firms Starbuck, et al., (1978) observed a pattern they labelled the "success breeds failure syndrome." A common characteristic of these organizations was a long period of rapid growth fostering overconfidence and overexpansion. Top management became convinced that the firm's past impressive performance put it in a position of dominance that could withstand the challenges of emerging competition. Consequently, management tended to ignore early indications of changes in consumer preferences, they failed to keep up with technological advances, and they began taking the loyalty of employees and other stakeholders for granted.

A similar pattern was observed in a recent study of the responses of small colleges to declining enrollments during the early 1970s. In this study Chaffee (1982) found that the colleges having the most difficulty responding to a precipitous drop in revenues had significantly overexpanded during the preceeding decade. During this period of abundant resources they had built too many new dormitories, hired too many new faculty members, and initiated too many new degree programs based on unrealistic projections of future student demand.

2. *Inadequate management controls.* During periods of rapid expansion there are few incentives for tight management control. Slack resources reduce the need for prioritizing since most reasonable demands on the budget can be satisfied. Furthermore, program and

personnel evaluations are rare because there is insufficient justification for invoking the confrontations inherent to any assessment of quality or utility. This problem is illustrated by the example of an industrial firm that was confronted with the need to drastically cut back their management personnel due to a substantial drop in sales. When the manager charged with the responsibility of formulating a retrenchment plan requested reports on the performance appraisals that had been conducted during the preceeding period of rapid growth, he found that this information was available for less than half of the managers.

A similar pattern was observed in Chaffee's (1982) study of retrenchment management in colleges. The colleges that had the greatest difficulty recovering from the drop in enrollment were those that had the crudest financial controls. Not knowing exactly how bad their financial situation was in the first year or two of their decline, the colleges continued spending based on precedent. When they finally became aware of their large debt, the options for recovery available to them had dwindled considerably. Furthermore, imposing much needed financial controls was viewed as a punitive action because the controls were implemented concomitant with severe austerity measures.

3. *Lack of collaboration and self-protection.* One of the paradoxes of retrenchment in higher education is that most effective responses require collaboration between internal groups (e.g., academic departments, faculty and administration). However, scarcity quite predictably results in heightened inter-unit conflict. Different interest groups become competitive as they vie for a share of a reduced resource pie. The challenge of overcoming this natural egocentric response to scarcity has been exacerbated in many universities by an orientation towards diversity and decentralization during periods of abundance. That is, increased diversity often inhibits effective responses to decline.

For example, several successive cutbacks in state support for the University of Wisconsin system in the early 1980s led to selfprotective and competitive behavior. High diversity exists in this system, but the diversity inhibited a unified stance and a consistent strategy for dealing with retrenchment. Individual campuses competed with one another for resources, one campus actively lobbied to be removed from the system and have its own budget, and "turf-consciousness" became a prevailing attitude among the various campuses as they tried to protect their fair share of the resource pool.

4. *Rigidity in problem solving approach.* When the need for retrenchment follows a period of rapid and sustained expansion, administrators experience considerable personal stress (Whetten, 1981). Since many have little personal experience with managing this type of crisis,

and since acknowledging the need for a drastic change in policy is perceived by many as an acknowledgement of personal failure, administrators tend to respond in a very cautious manner. They often are slow to admit that the organization is experiencing a major problem, and they are unwilling to entertain conflicting suggestions for change that sharply diverge from their own views. The tendency is to rely on a few trusted advisors who will be supportive of their initiatives during this time of adversity (Whetten, 1980). The result is that the causes of crises are frequently misdiagnosed and innovative solutions are spurned.

This process is clearly evident in Cameron's (1983) study of organizational effectiveness in institutions of higher education. He found the orientation of administrators in universities declining in enrollments differed significantly from administrators with growing or stable enrollments. Specifically, decliners tended to be internally focused, conservative in orientation, and reactive in responding to change, whereas the stable and growing groups were externally oriented, innovative, and proactive in their responses.

5. *Long-range planning is curtailed.* A common response to a crisis is the loss of a long-term perspective. Immediate problems are so pressing that administrators readily mortgage their future in hopes of gaining relief. Symptoms of this myoptic reaction include deferred maintenance, relying on seniority as the criteria for reducing staff reductions, and the elimination of the planning and development functions in the organization. The cumulative result of these responses is to accentuate the least adaptive features of the status quo. The physical plant is not improved, the faculty becomes stagnant and educational programs are not upgraded. Overall, the short-term savings resulting from these initiatives may be substantially smaller than the longer-term costs. Maintenance may be considerably more costly in the future, the lack of commitment to far sighted planning may encourage the most innovative faculty to leave, and the overall reduction in campus morale may discourage strong student recruitment. The debilitating effect of these short-term policies was so pronounced in one college studied by Chaffee (1982) that some members of the board of trustees actually privately advised the children of friends to apply to other colleges.

Transitions and the Organizational Life Cycle

One reason for the loss of resiliency and for the emergence of these dysfunctional characteristics under conditions of institutional stress is

the mismanagement of the transitions that occur throughout the organizational life cycle. As institutions develop over time, certain crises arise that require transitions or changes to occur, and the effective management of those transitions is critical to institutional survival.

Transitions in institutions occur when there is a mismatch between environmental demands, institutional attributes, and strategies being pursued. These mismatches usually arise from changes in the external environment (e.g., changes in consumer demand may dictate more need for engineering or high technology training in schools as opposed to liberal arts training), or from self-generated changes in the institution itself (e.g., conflicting coalitions may lead to alterations in structure, such as the formation of a union). Managing these transitions so as to produce rigidity and inflexibility is one of the main reasons for high rates of institutional death among colleges and universities.

Miller and Friesen (1980) studied the types of transitions in which organizations engage, and they described certain "archtypes" that recurred regularly in a wide variety of situations. The conclusion of their investigation was that the kinds of transitions required of organizations are relatively few.

> Perhaps the most arresting finding of this study is that the same types of transitions keep cropping up with impressive frequency in an extremely diverse sample of organizations. Furthermore, there do not appear to be a very great number of common transition types. Therefore it might eventually be possible to discover the fundamental building blocks or response behaviors constituting the elementary dynamics of organizational change. (p. 288)

Miller and Friesen's results lend support to the claims of a number of writers who have tried to identify these elementary dynamics of organizational change, and to outline models of the major transitions that occur in organizations. These models have been labelled "organizational life cycle models," and they identify the major transitions required of organizations as they develop over time. Before we discuss the applicability of life cycle models to college and university adaptation, however, it is necessary first to review the various models of organizational life cycles that have been proposed, and to discuss several of the major issues surrounding the presence of predictable transitions over a life cycle. The paper then concludes by pointing out some implications of life cycle models for effective institutional adaptation.

The Concept of Organizational Life Cycle

The term, organizational life cycle, refers to predictable change in organizations from one state or condition to another. It focuses on evolutionary change in the sense that the development of organizations is assumed to follow an *a priori* sequence of transitions rather than to occur randomly or metamorphically.

The concept of the organizational life cycle has achieved popularity only relatively recently (Kimberly & Miles, 1980). This recency reflects an increasing emphasis among organizational theorists and researchers both on processes of organizational decline and retrenchment, and on processes involved with organizational birth. In higher education, both these phenomena are prevalent, as evidenced by the fact that during the decade of the 1970s, approximately 20 percent of all institutions experienced a decline in enrollment (the highest in history), as well as the highest mortality rate in history (Zammuto, 1983). At the same time, however, Trow (1979) pointed out that the prevalence of organization births still outstripped organizational deaths.

> The extraordinary phenomenon of high fertility and high mortality rates among institutions of higher learning is still with us. Between 1969 and 1975, some 800 new colleges (many of them community colleges) were created, while roughly 300 were closed or consolidated, leaving a net gain of nearly 500 in just six years. (p. 272)

Organizational birth and death are not new phenomena, of course, but past researchers have treated them largely as static occurrences. Tabulated frequencies rather than descriptions of transitions from one organizational state to another are the most prevalent outcomes of research. As Kimberly suggested (1980), the dynamic properties of organizations largely have been ignored in scholarly inquiry in favor of cross-sectional, snap-shot views.

> This dynamic quality of organizational life is curiously absent from most research and writing in the area. Most organizational analysts seem to take the existence of organizations as a given and to assume survival as their fundamental goal. (p. 3)

Two different factors have served to stimulate a consideration of the dynamic life cycle properties of organizations in recent years. The first is the extension and elaboration of the biological metaphor as it pertains to organizations; the second is the literature on group development.

Whereas biological analogies have a long history in the organizational sciences, and social evolution has been a recurring theme in the social sciences (Spencer, 1897; Parsons, 1964; Miller, 1978; Campbell, 1969, 1975; McKelvey, 1982), recent authors have become both more insistent of the applicability of this theme, and more rigorous in arguing that biological analogies can inform the analysis of organizational change processes. Writers such as Aldrich (1979), Hannan and Freeman (1978), and McKelvey (1982), for example, have developed a population ecology perspective of organizations which relies heavily on biological science. These theorists focus on the dynamics of survival and demise of populations of organizations in a similar way to biologists' focus on the survival and extinction of species of living organisms. That is, the characteristics of the species and the extent of its adaptability determines survival or extinction.

Katz and Kahn (1978), and Miller and Rice (1967), Weick and Daft (1983), are among the theorists who take the organization level of analysis (as opposed to the population level) and also argue that properties of living (biological) systems are similar to organizational development. Just as living organisms pass through predictable stages of development and undergo a series of predictable transitions (e.g., stages of child development), so also are organizations claimed to possess similar sequential properties. Though the debate is still lively regarding the appropriateness of biological analogies for organization change and development, these analogies have nevertheless provided impetus for interest in organizational life cycles.

The second stimulus for considering the life cycle properties of organizations has come from research and theory on group development. Predictable change in groups and group processes has been a focus of research and theory since the turn of the century. Beginning with Dewey's (1933) emphasis on five (cognitive) stages of learning and Freud's (1921) analysis of children's (affective) responses to authority figures, theorizing and research have proliferated relative to cognitive and affective changes in groups over time. Writers on group development have observed a variety of different types of groups with varying compositions. For example, problem-solving, therapy, and interpersonal growth groups have been studied ranging from one session lasting several hours to multiple sessions over several years. Group membership has varied widely in the research—with members from 3 to 70 years old, mental patients and normals, managers and subordinates, students and instructors, and volunteers and forced-participants. Analysis has focused on personal role behaviors, on group processes, on unconscious processes among members, on problem solving strategies, on interpersonal needs, and so on. Despite this

variety, models of group development proposed by these various writers have been strikingly similar.

In 1976, for example, Cameron reviewed m xdels of group stage development that had appeared in the literature. Six common stages were proposed that summarized each of those models. That is, widespread agreement was found in the group development literature that groups progress predictably through a series of six sequential stages. Table 1 summarizes those models and compares their proposed stages. These six summary stages are:

(1) Isolation, orientation, and testing stage—in which group members try to identify acceptable roles for themselves, dependence on a leader is present, individuals feel isolated, information gathering activity is focused on, and members become familiar with rules and expectations.
(2) Formation of "groupness" and unity stage—in which members begin feeling integrated and a part of the group, group issues take precedence over individual issues, and feelings of cohesion and unity develop.
(3) Conflict and counter-dependence stage—in which group members react against the "sweetness" that has developed, the leader of the group is resisted, and rivalry and dissatisfaction increase.
(4) Conflict resolution and coordination stage—in which rivalry and competitiveness is resolved, individual roles are coordinated into a smooth functioning group, and pairing and intimacy occur among group members.
(5) Separation, elaboration, and independence stage—in which group member roles are differentiated, unique identities of individuals are re-established, and entrepreneurial activity increases.
(6) Effective group functioning (or termination) stage—in which problem solving occurs effectively, personal issues among group members and role conflicts are resolved, and efficient task accomplishment occurs.

These group stages follow a sequential pattern except when major disruptions occur such as a change in group leadership, membership, or resources. The group may then re-cycle back to earlier stages and develop through the sequence again.

The importance of these sequential group stages is that similar transitions have been found at more macro (organizational) levels of analysis. Group phenomena often generalize to more aggregated units in organizations. And because there is a great deal of empirical evidence confirming the presence of sequential stages on the group level, interest in organizational life cycle stages has emerged as well.

Table 1

A Comparison of Eighteen Models of Group Stage Development

Summary Model	[1]Isolation, Orientation and Testing Stage	[2]Formation of "Groupness" and Unity Stage	[3]Conflict and Counter-Dependence Stage	[4]Conflict Resolution and Coordination Stage	[5]Separation, Elaboration, and Independence Stage	[6]Effective Group Functioning (or Termination) Stage
Barron and Krulee (1948)			[1]Initial Resistance	[2]Understanding and Acceptance		[1]Well-Organized and Productive Group
Stock and Benzeev (1948)	[1]Exploration and Definition Stage	[2]Intense Feelings and Creativity Stage		[1]High Task Involvement Stage		
Thelen (1949)	[1]Individual Orientation		[2]Frustration and Conflict Stage	[1]Cohesiveness and Sweetness Stage		[1]Group and Task Centered Stage
Bales and Strodtbeck (1951)	[1]Problems of Orientation Stage		[2]Problems of Evaluation Stage	[1]Problem of Control Stage		
Theodorson (1953)	[1]Few norms, friendships, role differentiations Stage			[2]Many rules, linkages, interdependencies Stage		

Bennis and Shepherd (1956)	[1]Dependence and Submission Stage		[2]Counter-Dependence Stage	[3]Resolution Stage	[4]Enactment and [5]Disenchantment Stage	[6]Consensual Validation Stage
Modlin and Faris (1956)		[1]Structural-ization Stage	[2]Unrest, Friction and Dis-harmony Stage		[3]Change Stage	[4]Integration Stage
Martin and Hill (1957)	[1]Isolation Stage	[2]Asyndectic Stage	[3]Stereotyping, [4]Reaction and [5]Conflict Stage	[6]Here-&-Now and [7]Interpersonal Focus Stage	[8]Self-Analysis Stage	[9]Problem Solution and [10]Competence Stage
Schutz (1958)	[1]Problems of Inclusion Stage			[2]Problems of Control Stage		[3]Problems of Affection Stage
Smith (1960)	[1]Independence and Low Task Orientation Stage			[2]Interdependence and Task Orientation Stage	[3]Independence and Task Resolution Stage	
Kaplan and Roman (1963)	[1]One-to-one Relationships Stage	[2]Concern for the Group Stage	[3]Sub-group Coalition Formation Stage	[4]Pairing and Intimacy Stage		[5]Maturity Stage
Schroeder and Harvey (1963)	[1]Absolutistic Dependency Stage		[2]Negative Independence Stage	[3]Conditional Dependence Stage	[4]Positive Independence Stage	

Table 1 (cont.)

A Comparison of Eighteen Models of Group Stage Development

Summary Model	[1]Isolation, Orientation and Testing Stage	[2]Formation of "Groupness" and Unity Stage	[3]Conflict and Counter-Dependence Stage	[4]Conflict Resolution and Coordination Stage	[5]Separation, Elaboration, and Independence Stage	[6]Effective Group Functioning (or Termination) Stage
Mills (1964)			[1]Personal Frustration and Hostility Stage	[2]Internalization and Affection Stage	[3]Work Orientation Stage	[4]Termination Stage
Tuckman (1965)	[1]Dependence, Testing and Orientation Stage		[2]Conflict and Emotional Response Stage	[3]Cohesion and Exchange Stage		[4]Role and Problem Solution Stage
Slater (1966)	[1]Unconscious Stage	[2]Bonding with Leader Stage	[3]Revolt and Guilt Stage	[4]Common Experience and Intimacy Stage		[5]Consciousness Stage
Mann (1967)	[1]Initial Complaining Stage	[2]Premature Enactment Stage	[3]Confrontation Stage	[4]Internalization Stage	[5]Separation Stage	[6]Terminal Review Stage
Dunphey (1968)	[1]Absolutistic Dependency Stage		[2]Rivalry and Aggression Stage	[3]Coordinated Structural Patterns Stage		

Models of Organizational Life Cycles

Despite the empirical evidence supporting the sequential development of groups through predictable transitions, the notion that organizations pass through separate, sequential stages is controversial among organization theorists. Organizations are more complex entities than groups, they are affected more by external environments, and their purposes and tasks are generally more elaborate. Therefore, it is questionable whether the same change processes apply.

One group of writers, for example, suggests that organizational changes cannot be predicted in advance and that present characteristics of organizations cannot foretell future characteristics (Filley & Aldag, 1980; Freeman, 1982; Starbuck, 1968). Tichy (1980) argues, for example, that "the biological analogy of a system going through predictable phases of development does not hold up to empirical scrutiny. Organizations do not follow predictable biosocial stages of development" (p. 164).

The alternative proposed by these writers is that organizations make adjustments to their environments over time, but those adjustments cannot be anticipated. As an example, Filley and Aldag (1980) proposed that all types of organizational adjustments can be categorized as one of three types—craft, promotional, and administrative. Craft organizations are non-adaptive, stable forms that are strongly influenced by a chief executive. Little motivation for growth or expansion exists, and adequate levels of morale lead to little emphasis on motivation and a low risk propensity. A typical example might be a small, private college largely oriented toward serving a local student market. Promotion organizations are innovative, fluid forms led by charismatic leaders. They are oriented primarily toward entrepreneurial activities and toward exploiting a unique product or market. Such institutions might be specialized colleges or those involved in highly visible research activities. Administrative organizations are typified by long-range planning, formalization of procedures, and balanced functional development. Improvement of efficiency rather than innovation and expansion is emphasized. A typical large, bureaucratic college is a stereotypical example.

Craft organizations, according to Filley and Aldag, may completely change their form and become administrative organizations when incentives for growth, greater profit, or protection from the external environment are present (i.e., small institutions become large bureaucratic institutions). Promotion organizations change into administrative organizations when competitors enter their unique domain, or when entrepreneurship becomes too costly (e.g., innovation decreases

when financial slack is reduced, and the institution becomes formalized and conservative). Administrative organizations conceivably can become promotion organizations when pressures for distinctive innovation are felt from the market (e.g., course demand shifts markedly). Filley and Aldag suggest, however, that organizational transitions are not sequential, and that advanced prediction of what form an organization will take is not possible.

> In general it appears that organizations do experience shifts in their basic character, that common patterns of structure and growth are to be found in various forms of human organization, and that unlike the case with organisms, the patterns need not follow each other in a prescribed order. (p. 283)

On the other hand, other writers adopt a position similar to group stage development researchers by arguing that sequential stage development accurately maps organizational transitions over time. Lavoie and Culbert (1978) summarized this view.

1. In most organizations, the changes which characterize development follow more or less the same sequential pattern.
2. Under normal circumstances progressive changes will not easily reverse themselves.
3. Developmental change is a change in the quality of responses (format, pattern, structure, etc.) and not merely in the frequency of correctness according to an external criterion such as profitability.
4. Developmental changes affect a broad range of organizational activities and responses.
5. Development change is hierarchical, that is, latter forms will dominate and integrate earlier ones. (p. 418-419)

At least ten different models of sequential life cycle development have been proposed by various writers. None of the models are identical to the others, but like the group stage development models, they all identify a common set of problems and characteristics that are typical of organizational transitions over time.

These ten models have focused on different organizational phenomena (e.g., changes in structure, functional problems, leadership issues, individual "mentalities," control mechanisms), and authors have considered different types of organizations (e.g., federal government bureaus, medical schools, colleges, businesses) in their proposals. But these differences do not discriminate among the various models. That is, all ten models suggest similar life cycle stages. The models contain an *entrepreneurial stage* (early innovation, niche formation, creativ-

ity), a *collectivity stage* (high cohesion, commitment), a *formalization and control stage* (stability and institutionalization), and a *structure elaboration and adaptation stage* (domain expansion and decentralization). The summary model in Table 2 enumerates the common organizational characteristics typical of each of these stages.

It is important to point out that existing in any one of these life cycle stages creates problems for the organization that can be solved by moving to the next stage of development. For example, the problem created by the entrepreneurial stage is a lack of coordination and cohesion. Organization members work for their own goals and outcomes. The main problem created by the collectivity stage is a need for efficiency, coordination, and control of the production process. Stage 3, the formalization and control stage, presents problems of rigidity, lack of participation, and non-adaptability. The final stage, structure elaboration and adaptation, presents problems from all three of the previous stages. Organizations are able to maintain effectiveness in spite of these problems by progressing to the next stage of the life cycle.

Some of the authors in Table 2 divide these four major stages into multiple sub-stages (e.g., Adizes' adolescent, prime, and mature organizational stages are all in the formalization and control stage); some authors ignore either the first or the last stage (e.g., Katz and Kahn do not include the entrepreneurial stage in their model; and Downs, Lyden, Adizes, and Kimberly do not include the fourth stage—elaboration of structure—in their models). But as a group, there seems to be some consensus in the models about the characteristics of certain developmental stages as organizations progress through their life cycles. This consensus is reflected in the Summary Model in Table 2.

With the exception of Adizes model, none of the life cycle models is concerned with organizational decline. All assume an unending growth curve, or at least stability. In addition, the length of time that organizations remain in particular stages of development is not specified by the authors. However, research by Kimberly (1979), Cameron and Whetten (1981), Miles and Randolph (1980), Neal (1978), and Quinn and Cameron (1983), suggest that the stages can occur in rapid sequence (e.g., maturity can be reached quickly) or they can be very slow in developing (Downs, 1967). Lippitt and Schmidt (1967) even hold that organizational age and stage of development are poorly correlated and all organizations do not progress through all stages of the model. To speculate on the variations in this temporal dimension, however, is beyond the scope of this paper.

Unlike many of the group stage development models, organizational development models have not been based on systematic empirical

Table 2

An Integration of Ten Life Cycle Models

Summary Model

1. Entrepreneurial Stage
- Marshalling of resources
- Multiple and diverse ideas
- Entrepreneurial activities
- Little planning and coordination
- Formation of a "niche"
- "Prime mover" has power

2. Collectivity Stage
- Informal communication and structure
- Sense of collectivity
- Long hours spent
- Sense of mission
- Innovation continues
- High commitment

3. Formalization and Control Stage
- Formalization of rules
- Stable structure
- Emphasis on efficiency and maintenance
- Conservatism
- Institutionalized procedures

4. Elaboration of Structure Stage
- Elaboration of structure
- Decentralization
- Domain expansion
- Adaptation
- Renewal

Downs: Motivation for Growth (1967)

Struggle for Autonomy Stage
- Legitimize the function to the external environment
- Obtain autonomy from parent or competing bureaus
- Stabilize resources
- Achieve survival threshold

Rapid Growth Stages
- Innovators and climbers have control
- Emphasis on innovation and expansion
- Occurence of an "age lump" in membership

Deceleration Stage
- Increased size and complexity causes coordination problems
- Innovation is deemphasized
- Smoothness and predictability are emphasized
- "Conservers" have control
- Formalized and elaborate role systems
- Reduced flexibility

Lippitt & Schmidt: Critical Managerial Concerns (1967)

Birth
- One-man rule
- Short-range perspective
- Concerned with survival

Youth
- Emphasis on stability and service
- Team decision making

Maturity
- Emphasis on adaptability
- Contribution to society is valued

• Confidence in personal abilities • Personal control	• Efficiency emphasized • Goal setting and planning occur • Systematic control	• Growth opportunities are sought

Scott: Strategy and Structure (1971)

Stage 1	Stage 2	Stage 3
• One-man rule • Paternalistic reward system • Subjective evaluation criteria • No formal structure	• Functional specialization • Institutionalized procedures • Systematic reward system • Impersonal evaluation • Formalized structure	• Diversified product markets • Search for new products and growth opportunities • Semi-autonomous divisionalized structure

Greiner: Problems Leading to Evolution and Revolution (1972)

	Creativity Stage	Direction Stage	Delegation Stage
	• Emphasis on producing a product • Long hours of work with modest rewards • Informal communication and structure	• Functional structure established • Accounting system set up • Specialization of tasks • Formalized rules and policies	• Decentralization of structure • Decision making pushed lower in the hierarchy • Management by exception **Coordination Stage** • New systems arise • Product groups form • Long term planning • Profit sharing programs **Collaboration Stage** • Team Action • Spontaneity in management • Confrontation in interpersonal problems

Table 2 (cont.)

An Integration of Ten Life Cycle Models

Adizes: Major Organizational Activities (1979)

Courtship Stage
- Founders are dreaming up "what we might do"
- Entrepreneurial activities

Infant Organization Stage
- Emphasis on production
- Time pressures keenly felt
- No tradition
- Few meetings
- Little planning

Go-Go Organization Stage
- Rapid Expansion
- Personalized leadership
- Some planning
- Fast, frequent, intuitive decisionmaking

Adolescent Organization Stage
- Planning and coordination are important
- Administrative activities increase at the expense of entrepreneurial activities and production
- Stability and conservatism
- Formalized rules and policies

Prime Organization Stage
- Emphasis of efficiency
- Increasing loss of touch with the environment
- Thick organization boundaries
- Aspirations remain stable, no desire to grow or change
- Stability and predictability are valued

Maturity Stage
- Paternalistic, comfortable organizational climate
- Low emphasis on production
- Formalized relationships
- Little innovation

Kimberly: Internal Social Control, Structure of Work and Environmental Relations (1979)

First Stage
- Marshalling of resources
- Creation of an ideology

Second Stage
- Obtaining support for the external environment
- Choice of a "prime mover"
- Staffing of the organization
- Frequent, discrete decisions are made

Third Stage
- Formation of identity
- Sense of collectivity of family
- High member commitment and involvement in the organization
- Pursuit of organizational mission
- Postponing individual need fulfillment temporarily

Fourth Stage
- Formalized structure
- Policies and rules set up
- Internal organizational competition
- Stabilized external relations
- Conservative trend
- High personal investment questioned

Child and Kieser: Markets, Transactions, and Structure (1981)

First Stage
- No formal structure
- Personal direction
- No differentiation or specialization
- One product

Second Stage
- Integration of transactions
- Functional specialization
- Single product or market

Third Stage
- Multiple products and markets
- Product specialization
- Fragmentation of transactions

Fourth Stage
- Grid or matrix structure
- Fragmented markets

Table 2 (cont.)

An Integration of Ten Life Cycle Models

Torbert: Mentality of Members (1974)

Fantasies Stage
- Individual visions and fantasies
- Free-floating conversation
- Diffused perceptions by members

Investment Stage
- High investment by individual
- No clear leadership style
- Validity and depth of commitment examined

Determination Stage
- Group goals and structure set up
- Group unity prevalent
- Psychological contracts set up

Experiments Stage
- Plans, schedules, roles, and governance established
- Rational decision making

Predefined Productivity Stage
- Focus on task performance as defined by others
- Fixed rules, structures and authority system

Openly Chosen Structure Stage
- Collaboration among levels
- Reflection about deeper issues
- Creativity and innovative methods
- Flexibility in procedures

Foundational Community Stage
- Shared spiritual, behavioral, and theoretical qualities among members
- Organization becomes a spiritual community

Liberating Disciplines Stage
- Individuals and the organization are engaged in self renewal
- Inclusive not exclusive boundaries
- Organization seeks challenges

Lyden: Functional Problems (1975)

First Stage
- Emphasis on adaptation to the external environment

Third Stage
- Emphasis on goal attainment

Second Stage • Emphasis on resources acquisition		**Fourth Stage** • Emphasis on pattern maintenance and institutionalization	

Katz and Kahn: Organizational Structure (1978)

	Primitive System Stage • Cooperation endeavors based on common needs and expectations of members	**Stable Organization Stage** • Coordination and formalization • Authority systems arise • Informal structure arises • Rule enforcement • Maintenance systems arise	**Elaborative Supportive Structures Stage** • Adaptation systems are formed, i.e., procurement systems, disposal systems, institutional relations system

investigation. Instead, they were proposed only on the basis of observations and experiences of the authors themselves. As a result, much more controversy surrounds the validity of life cycle models for describing organizational transitions than is the case for models of group transitions. Whereas a large amount of empirical evidence exists for the presence of group stage development (Slater, 1955; Dunphey, 1968; Tuckman, 1965), similar evidence has not yet been produced for organization stage development.

On the other hand, since these various models were proposed, evidence that supports the existence of sequential stages has been uncovered by several authors. Similarities between group and organization transitions, and case studies of organizational change over time are illustrations of this evidence.

Evidence for Sequential Life Cycle Stages

Table 3 compares the characteristics of the summary group development model with the summary organization life cycle model. Whereas the organization-level model contains fewer stages, similar characteristics are common to both models. These similarities are important because, as Lyden (1975) suggested, "the same functional requirements or problems must be dealt with at every level of system organization [p. 59]." Groups or sub-systems face the same problems and transitions as does the broader organization; therefore, it is reasonable to assume that stage development models will be similar.

More compelling support comes, however, from the life cycles research of several different authors who investigated organizational changes over time. For example, Quinn and Cameron (1983) analyzed the birth and early history (i.e., the first six years) of a state agency in New York. They chronicled the development of the organization from its first stage (the creation and entrepreneurial stage)—when characteristics existed such as fluid and nonbureaucratic methods of task assignment, strong personal power and no formal office for the director, a strong emphasis on creativity, and no formal organizational chart—through the second stage of development (the collectivity stage) where work teams were formed, a missionary zeal and dedication to the organization were developed, and high cohesion and interaction occurred both among organization members and between members and outside constituencies. The events leading to the development of the third stage (the formalization and control stage) also were analyzed along with the organizational trauma that resulted from the transition from stage 2 to stage 3. No evidence for stage 4 was

Table 3

A Comparison of the Group and Organization Life Cycle Stage Models

Group Level	Characteristics	Organization Level
1. Isolation, orientation, and testing stage	• dependence on the leader • a "prime mover" has power • little coordination or planning • abundance of diverse ideas	1. Creation and entrepreneurial stage
2. Formation of "groupness" and unity stage	• sense of collectivity and group identity • high commitment to the group • informal interaction and coordination	2. Collectivity stage
3. Negative reactions, counter-dependence, and conflict stage	• counter-dependence toward the leader • subgroups and coalitions form confrontation, conflict, and • tension	
4. Conflict resolution, coordination, and cohension stage	• coordination of activities • formalization of rules • stability and conservatism • cohesion and exchange	3. Formalization and control stage
5. Separation, elaboration, and independence stage	• decentralization and independence • experimentation and expansion • elaboration of structure • healthy discontent with the status quo	4. Elaboration of structure stage
6. Effective group functioning (or termination) stage	• problem solving competence • high task accomplishment • review of termination issues	

contained in that investigation. These authors concluded that the characteristics prescribed by the life cycle model did, in fact, occur in a sequential order.

Kimberly's (1979) analysis of the life cycle development of a medical school provides another example. He analyzed the preconditions leading to the birth of the organization and the subsequent presence of stage 1 characteristics (such as the presence of a powerful leader,

riskiness, entrepreneurial activity, and innovation). Stage 2 characteristics were found to develop later (close, informal coordination of various groups of doctors and medical school staff, increasing sense of mission, designs of a unique, innovative curriculum), and stage 3 characteristics began emerging at the close of the investigation (e.g., institutionalization of procedures, conservative trends established, formalized evaluations, differentiation and specialization of tasks). Kimberly suggested that institutional characteristics acquired in one stage of development may actually serve to impede the transitions into later stages.

A third example comes from Neal's (1978) analysis of an adult education organization. She described the pre-conditions that led to the establishment of the institution, and then traced transitions through each of four sequential stages prescribed in the model. Neal concluded that group development theory was a good predictor of the phenomena that she observed. Stages of development were followed sequentially, and the fact that the organization's death occurred after only three years helped transitions from one stage to another occur more rapidly.

Other examples of sequential life cycle development also have been published (Cameron and Whetten, 1981; Miles & Randolph, 1980; Lyden, 1975), but to review each of these studies would prove too lengthy for our present purposes. It is important to point out, however, that considerable evidence exists to support the proposition that sequential transitions occur in organizations over time.

Implications of Life Cycle Models for Higher Education

Having briefly reviewed the major issues surrounding the concept of organizational life cycle and the various models that have been proposed, we can now turn to a discussion of their implications for institutions of higher education during periods of transition. Two major insights can be drawn from the life cycle literature.

First, a greater understanding of the life cycle stages, and the pitfalls and opportunities associated with each, can help institutions make these transitions less traumatic. Transitions in institutions of higher education are motivated by imbalances or crises. Greiner (1972) argued that each life cycle stage is culminated by a major crisis that ushers in the next stage of development. New stages are reached by solving the major problems of the previous stage, but those solutions create new organizational problems. An understanding of this dialectical view of organizational change aids the effective management of transitions by guiding the problem solving process. Specifically, the

appropriateness of a response to major crises is often a function of the organization's life cycle stage of development. When the crisis apears to stem from the dysfunctional consequences of the current mode of operation, administrators would do well to consider making changes that are consistent with the next level of development. For example, an institution in the second stage of life cycle development (i.e., cohesion and commitment are high, a sense of family exists, the identity of the institution is a crucial concern) should explore the possibility of increasing formalization and control (i.e., moving towards the formalization stage). Greiner (1972), Lyden (1975), and others suggest that when these conditions exist, institutional responses that don't lead to the next developmental stage are less likely to be effective.

Bourgeois, McAllister, and Mitchell (1978) found evidence for this proposition when they investigated the responses made by newly formed divisions of a large organization to certain environmentally-induced crises. Contrary to contingency theory (Lawrence & Lorsch, 1969), but consistent with the life cycle model, successful divisions responded to turbulence and uncertainty by becoming more mechanistic, rather than more organic in structure. The apparent reason for the success of this strategy was that these organizations were at an early stage in their development (stage 2) where they needed increased formalization and control (stage 3) to cope effectively with environmental problems.

This is not to say, of course, that all crisis can be resolved only by moving toward the next level of development. Research on group stage development has shown that a recycling phenomenon often occurs when groups in their latter stages of development encounter major crises. A similar phenomenon undoubtedly occurs in organizations. As the result of a merger, a substantial decrease in resources, a major loss of personnel, and so on, a mature institution may appropriately revert to an earlier stage of development. The strategies implemented dictate which previous stage will be returned to. A consolidation and centralization strategy, for example will lead the institution back to the formalization and control stage (stage 3) where the major institutional problems will then center on how to maintain adaptability, creativity, and participativeness. Strategies oriented toward increasing morale, commitment, and individual initiative may lead back to stage 2 (the collectivity stage) where major institutional problems then center on how to maintain control, efficiency and coordination.

This recycling phenomenon explains why some writers find evidence that sequential transitions are characteristic of organizations whereas others argue that sequential change does not occur. Transition through organizational life cycle stages is observed mainly in the early history

of organizations, whereas evidence that life cycle stages do not occur comes totally from older, mature organizations (Filley & Aldag, 1980; Penroe, 1952; Tichy, 1980). Both phenomena probably occur, inasmuch as recycling through life cycle stages after organizations become mature may be interpreted as being an absence of sequential transitions. Moreover, the elaboration of structure stage (stage 4) often leads to decentralization and loose coupling, especially in colleges and universities, so that different subunits may progress at different rates through the recycling process, or they may shift back to different stages. Institutional diversity may make a consistent transition pattern on the organizational level difficult to identify (Freeman, 1982).

A second insight gained from the life cycle literature is that *the criteria of institutional effectiveness applicable in one stage of development are not necessarily appropriate in other stages of development*. Because the major problems and activities of institutions change with each new stage, judgments of institutional success also are based on different criteria. For example, Cameron and Whetten (1981) found that the criteria of effectiveness held by participants in simulated organizations changed as the organizations progressed from birth to maturity. Early on, participants tended to focus on factors important to them as individuals, but gradually their emphasis shifted to the work group and subunit level, and finally to the organization as a whole. Also, their initial ratings of effectiveness were geared to success in procurring resources, while later their concern shifted to the successful disposal of outputs. Cameron and Whetten concluded that "the simulated organizations developed through stages similar to those experienced by real organizations" (p. 537) and that "significant variation existed in the ratings [of effectiveness] of the individual, department, and organization levels, depending on the organization's stage of development" (p. 534).

Another study (Quinn & Cameron, 1983) also found evidence for a shift in the importance of effectiveness criteria depending on the life cycle stage. They investigated the transitions engaged in by a state government agency and tried to determine which criteria of effectiveness were most important in which stage of development. Four different models of effectiveness were used, each of which relies on different indicators to judge effectiveness—the rational goal model, the open systems model, the human relations model, and the internal processes model. They found that in stage 1 (the intrepreneurial stage), the open systems model criteria were most important. In stage 2 (the collectivity stage), human relations and open systems model criteria took precedence. In stage 3 (the formalization stage) rational goal and internal process model criteria were paramount, and in stage 4 (the elaboration

of structure stage) open systems and rational goal model criteria were relied on most to judge effectiveness.

One reason for this shift in the importance of effectiveness criteria was that in different stages of development, different constituencies were more or less dominant. In early stages, for example, resource providers were more important than regulators, but in later stages the reverse was true. What this suggests for colleges and universities is that the institution must adopt the primary criteria of effectiveness espoused by the dominant constituency in order to survive. In a study of college and university effectiveness, for example, Cameron (1983) discovered that the most successful institutions were those that satisfied the preferred criteria of effectiveness held by the most powerful constituencies.

This shift in criteria of effectiveness from one stage to another also points out the need to match the characteristics of top institutional administrators with the unique challenges facing a college or university at a particular point in its development history. That is, some administrators may be able to manage effectively in one stage of life cycle development but not in another. In his study of the early history of English private schools founded by entrepreneurs, for example, Pettigrew (1979) found that once the school became well-established, the future well-being of the institution depended on the founder stepping down and installing a "steady state manager" in his place. In those cases where the entrepreneur insisted on retaining operational control of the school once it reached stage 3 or 4, it suffered from a lack of attention to internal management details. In other words, entrepreneurial leaders are most effective when success is defined by innovation and resource acquistion (i.e., stage 1), but less effective when criterial of success focus on stability, control, and efficiency (i.e., stage 3).

A similar result was found by Chaffee (1983) in her study of institutional recovery from revenue decline. In every case, successful recovery schools replaced old administrators (who had managed the institution under conditions of growth and expansion) with a new management team. A new stage of organization development made old ways of administering ineffective. Administrative style must change, therefore, or else new administrators who can manage the demands of a new stage of development must be installed, when major institutional transitions occur.

It is important for administrators in colleges and universities to help prepare both themselves and their institutions for upcoming transitions. Knowing that different problems are encountered in each life cycle stage should help administrators prepare for the transitions that

will almost inevitably follow. Administrators who refuse to acknowledge the need for change, and who tenaciously cling to anachronisitic policies and programs applicable to earlier stages, will generally be replaced once the organization enters a new life cycle phase. The prospect of being able to avert a necessity of frequent leadership succession represents one of the strongest motivations for developing a greater understanding of the life cycles model of organizations.

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PERSONNEL ISSUES

MOTIVATION RESEARCH VERSUS THE ART OF FACULTY MANAGEMENT

Barry M. Staw

The purpose of this essay is to try to explain the motivation of university faculty by using the models and research experience of organizational behavior. The writing task began with the assumption that the organizational behavior (OB) literature might have something new to contribute to the management of universities. However, while there are merits to the cross-fertilization of research areas, I have had to cope with two sources of anxiety.

One source of worry in extending motivation research is the fact that theories of individual behavior in organizations may not be exemplary. Therefore, in reviewing motivation theories from organizational behavior I have tried to portray some of the many limitations to our knowledge in both a conceptual and applied sense. A second worry in extending motivation research is the fact that behavior in universities may be quite different from actions in industry, the setting to which most OB models of motivation are applied. Our models of motivation may, for example, more accurately describe behavior in a non-voluntary organization in which exchange principles dominate participation than a professional organization devoted to the pursuit of knowledge. Nearly all our models consist of various elaborations of hedonistic behavior, whereas at least some portion of faculty behavior may be more altruistically oriented. Therefore, I have tried to outline the beginnings of a prosocial model of motivation so that cooperation and working toward collective goals might be better explained in university settings. If successful, research on such a model could provide a contribution from education *back* to theories of motivation in organizational behavior.

Barry M. Staw is professor, School of Business Administration, University of California, Berkeley.

Some Definitions and Caveats

As a theoretical construct, motivation is generally defined as a prepotent state that energizes and guides behavior. It is rarely measured directly, but is instead inferred from changes in behavior, intentions, or even attitudes. Because of its use in producing or influencing behavior, the construct of motivation is typically associated with models of individual performance, thereby taking on all the vagueries associated with the evaluation and ethics of performance itself. By increasing individual motivation and performance, it is often not clear, for instance, whether one person's gain will be at the expense of another's welfare or whether heightened performance will serve organizational goals. Thus, as a practical tool, motivation theories can serve one or more constituents of an educational system, but they cannot assure system performance. Since each actor in the organization may have different goals and because there may be no general agreement on what educational effectiveness really is, we must always ask the question of motivation for what purpose or end. With these caveats in mind, I will turn to a brief history of motivation theory in organizational behavior so that its potential application to educational organizations can be assessed.

A Short Tour of Motivation Theories

As recently as a decade ago, researchers in the motivation area could be placed rather neatly into one of three theoretical camps. Reinforcement theorists were primarily concerned with behavior modification, demonstrating the power of extrinsic rewards in changing behavior and arguing that motivation is basically a non-cognitive form of learning in which one's actions are shaped by the scheduling of rewards and punishments. Contesting this radical form of behaviorism were need theorists who argued that knowledge of the need state of any individual is essential to behavioral prediction, since much of human motivation comes from inner drives that augment as well as define the value of external pleasures and pain. Largely allied with the need theorists were expectancy researchers who posited that individuals seek to maximize valued outcomes, with those outcomes being determined by the reward system of the organization as well the person's capability in achieving high performance.

As research evolved in organizational behavior, need theory became under increasing attack on both methodological and theoretical grounds. Reliable scales of individual needs have been difficult to

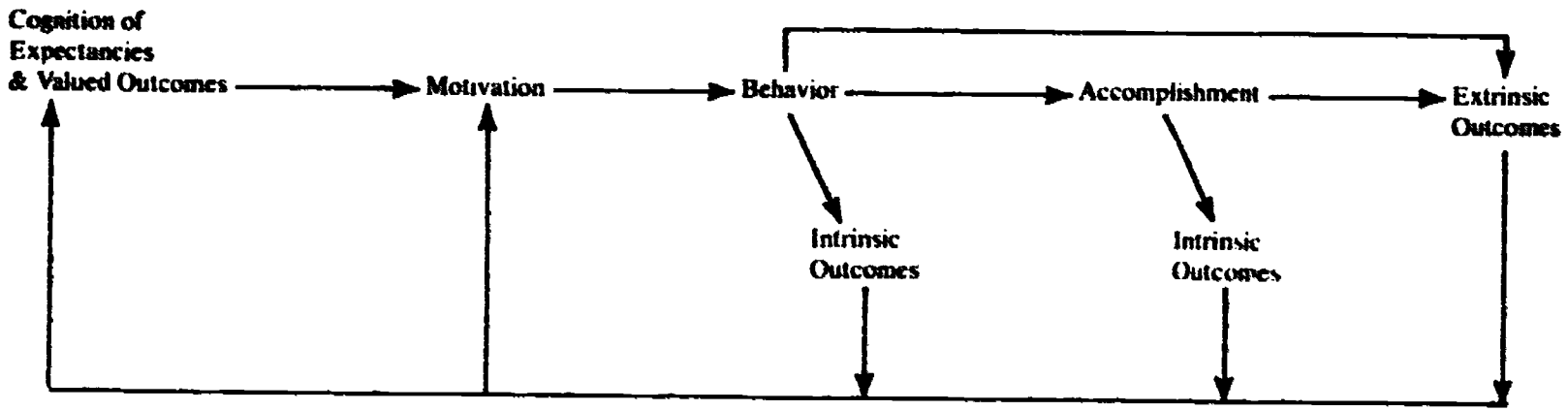
develop and the leading model of human needs, Maslow's (1954) hierarchy theory, failed to be validated in several empirical tests (Wahba & Bridwell, 1976). Aside from Alderfer's (1972) recent revision of Maslow's theory, direct interest in individual needs has diminished. However, as noted by Salancik and Pfeffer (1977), need theory has continued to play a strong *indirect* role in several models of organizational behavior. The idea of individual needs has been folded into job design theory since job enrichment has emphasized how job characteristics appeal to underlying needs for social interaction, competence and personal achievement. Needs have also been integrated into expectancy theory through the use of valued outcomes, since it is often noted (e.g., Naylor, Pritchard & Ilgen, 1980) that outcomes attain value through a need deficiency. Though it is not always recognized, expectancy theory actually short-cuts the question of needs by concentrating on valued outcomes, regardless of whether the source of value is from external social influence or internal dispositions of the individual.

In addition to the deemphasis on needs, motivation theory has recently witnessed a rapproachment between reinforcement and expectancy perspectives. Expectancy theorists now acknowledge how previous reinforcement schedules can affect perceptions about future events—whether one's efforts will lead to accomplishment or whether accomplishment will lead to reward. Also, reinforcement theorists have started to acknowledge the cognitive side of motivation with notions like personal efficacy (Bandura, 1977), as well as renewed interest in behavior modeling and vicarious learning. The result of this accommodation could be characterized by the model in Figure 1.

Figure 1 shows how motivation can be a product of both expectancies and valued outcomes, and how motivation can subsequently lead to both intrinsic and extrinsic outcomes. Task behavior can be intrinsically painful or pleasurable regardless of whether it contributes to accomplishment. Task accomplishment can be rewarding by itself or it can subsequently lead to extrinsic outcomes like greater status or pay. Task behaviors may also be extrinsically rewarding even if they do not lead directly to accomplishment, such as when attendance and hard work are recognized in lieu of measures of productivity. Finally, as shown in Figure 1, motivation can be altered through changes in future expectations or more directly through the receipt of intrinsic and extrinsic outcomes. Task behavior can therefore be cognitively based, reflecting an explicit calculation of future returns, or occur largely out of awareness, being a product of past association and habit strength (see Staw, 1977, for elaboration of this argument).

Though Figure 1 would appear to be a logical compromise between expectancy and reinforcement theories, no such amalgam has really

Figure 1
A Basic Model of Task Motivation



been adopted by organizational researchers. Instead, it is fair to say that expectancy theory has gained an increasingly dominant position. Although most versions of expectancy theory now acknowledge the import of past outcomes upon future expectations, the field has largely settled upon a hedonism of the future in which individuals assess work behavior with a bundle of expectations about intrinsic and extrinsic rewards.

While the radical reinforcement position that avoids all mention of human thought has generally been subdued, there have been other more cognitively based researchers who have questioned the assumptions of the expectancy approach. One group of dissenters have been attribution researchers who have posited that intrinsic and extrinsic outcomes may not be additive in their effect on motivation. Starting with Deci (1971) and Lepper, Green & Nisbett (1973), a whole body of research has developed over the question of whether extrinsic rewards can decrease intrinsic motivation (see Deci & Ryan, 1980, Staw, 1976, for reviews). The idea stems from the self-perception of motivation (Bem, 1972). If a task is inherently interesting, but external rewards are also made salient, individuals may misattribute their motivation on the task, judging themselves to be working for the reward rather than for intrinsic interest.

Although many social psychological studies have demonstrated the interaction of intrinsic and extrinsic rewards, this subarea of research has yet had little substantive influence on models of motivation in organizational behavior. One reason for this lack of influence is that many organizational studies have demonstrated positive relationships between pay and intrinsic interest. Within industry, pay may be the only real feedback one has on performance, thus constituting a source of personal achievement rather than external control (Rosenfield, Folger, & Adelman, 1980). And, since payment is expected for industrial tasks, monetary rewards may not constitute the kind of unusual external control shown to alter the self-perception of motivation within laboratory studies (Staw, Calder, & Hess, 1980).

A second major group of dissenters to expectancy theory has been forming around the information processing perspective, and this group may be more likely to reshape our notions of motivation than either intrinsic motivation or reinforcement theorists. Because expectancy theory is basically a model of individual decision making it is subject to all the limitations of human cognition. For years we have known that individuals engage in limited information search, have difficulty with inputting, storing and recalling large amounts of data, and that people tend to seek satisfactory rather than maximum outcomes (e.g. Connolly, 1977; Simon, 1957). But, recent work by Langer (1978) and

Taylor & Fiske (1978) has driven home the point that many of our daily activities are either non-cognitive or governed by the most crude analyses of the situation. Researchers in social cognition therefore are concerned with the many heuristics and biases that individuals use in coping with their social interactions (Nisbett & Ross, 1980). Rather than positing a thorough analysis of gains and losses as described by expectancy theory, there is now more interest in specifying the crude schemas, scripts, and prototypes that are used by individuals in social decisions. Existing motivation models should logically incorporate these "top of the head" phenomena, but this merger is still several years away from development.

From even this brief tour of motivation theories we can anticipate the future shape of the construct. In the coming years, motivation will probably continue to be based on individual perceptions of behavior leading to outcomes, but both the number of linkages and type of outcomes will remain empirical questions. In situations where consequences are potentially large and where individuals are accountable for their actions, there may well be the careful screening of alternatives and assessment of rewards that expectancy theory now assumes. In more routine contexts, however, attention and cognition will probably be more limited. Empirical research should, therefore, focus upon those scripts and limited action plans that are actually used by organizational actors as opposed to their adherence to normative models of motivation. Research should also focus upon ways in which positive work behavior can become the scripted alternative, so that good performance will not call for either salient rewards or external exhortations. Also worthy of future attention will be methods to shift individual attention from a short to longer term perspective, and techniques to move valued outcomes from an individual to collective basis. We will return to these questions in our discussion of motivation within educational systems.

Some Simple Extensions

Probably the simplest extension of motivational principles to educational settings is the analysis of reward contingencies. Drawing upon reinforcement theory's preoccupation with past rewards and punishments, we can ask the question of what outcomes are dispensed in the system, to whom, and over what schedules. Common education problems such as poor teaching, lack of research output, and inattention to service needs can sometimes be traced to the set of behaviors that have been reinforced over time. Changing the set of outcomes facing various faculty and tying rewards to desired outcomes may alter faculty

behavior, but a few caveats must be noted before reinforcement principles are viewed as the panacea to all organizational ills.

First of all, reinforcement principles tell one how to make a behavior more frequent rather than answer the question about what the right behavior is. If rewards do anything, they focus behavior upon rewarded paths while non-reinforced behaviors tend to extinguish. The problem that therefore arises is not how to motivate faculty to do a better job on teaching, but whether one really wants the possible trade-off between teaching and other valued behaviors. Unless time and attention can be squeezed from other role obligations (e.g. family obligations and free time), a faculty member more attentive to teaching must, by default, be less attentive to research, professional service or the other activities now dominating his or her time. Therefore, reinforcement theory requires the organization to set priorities, deciding on which set of role behaviors is closest to the image of an effective faculty member. The theory does not provide any easy or obviously correct answers, it being only a tool for a particular set of goals and not a goal into itself.

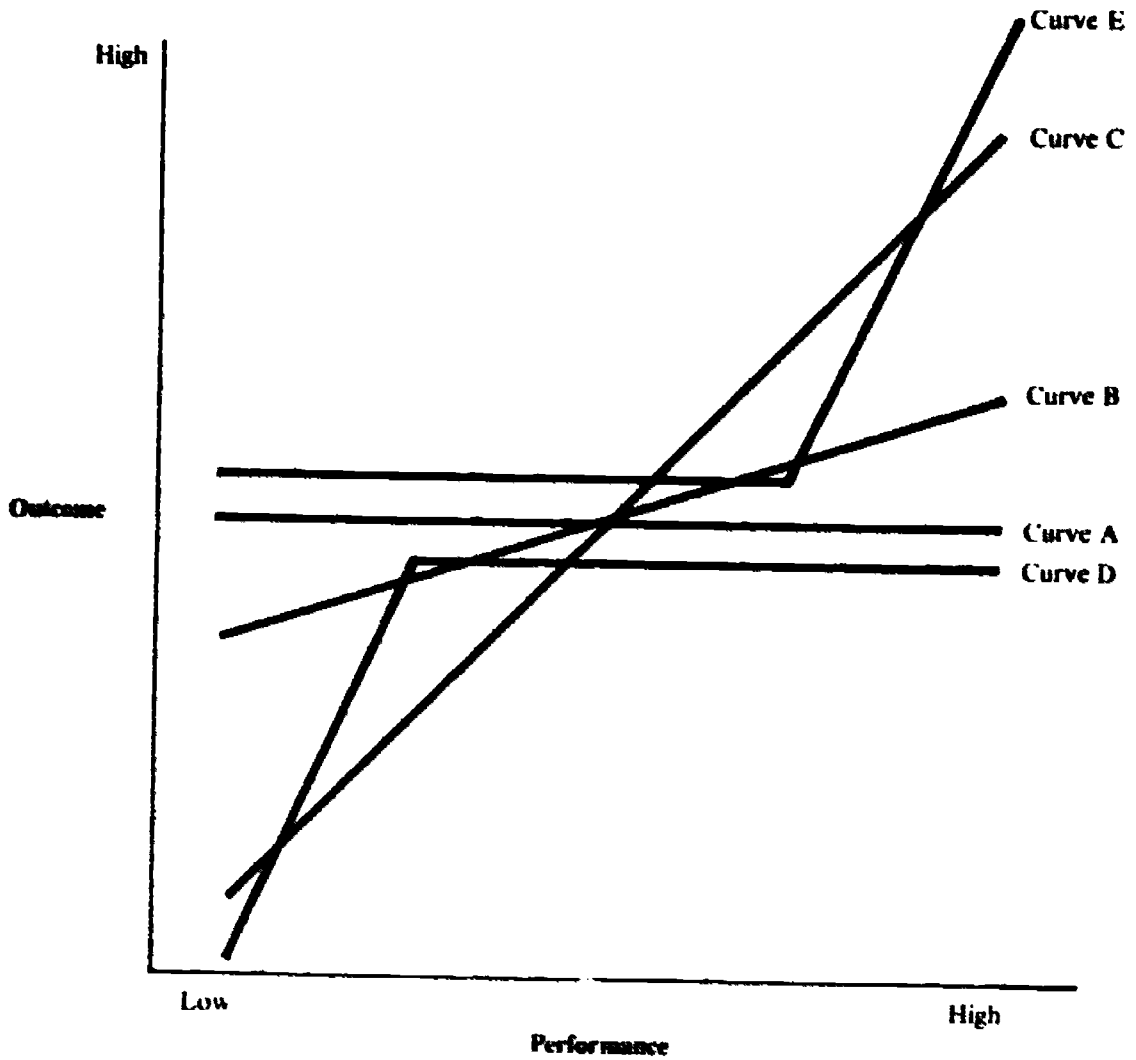
While I have used reinforcement language to describe some reward contingencies facing faculty, current motivation theory would be more future oriented. From the expectancy perspective, influencing behavior involves changing people's subjective probabilities and desired outcomes, with past contingencies being part but not all of the picture. Faculty, to be motivated, must believe they can perform their roles effectively as well as perceive some benefit from their performance. Therefore, providing time, resources, and social support for faculty teaching or research may be just as important as any set of rewards for work improvement. Under high self-confidence and personal efficacy, faculty may perceive that they can conduct the research that is personally and professionally rewarding. Likewise, by fostering rewards that are stronger and more salient to the individual (e.g. through peer evaluation and professional recognition), administrators may have more leverage on faculty motivation than by simply elaborating a set of behavioral guidelines. Finally, by providing credible models for success, the appropriate role behavior could be clarified without the costs of personal trial and error. These are just a few of the contributions of an expectancy approach to motivation that would not be obvious from the reinforcement perspective.

Designing a Reward System

As outlined in the discussion of reinforcement and expectancy theories, the essence of controlling behavior is the contingency be-

tween performance and outcome. However, the simple statement that outcomes, whatever they are, should be linked to performance is not enough to guide anyone in designing a reward system. Consider, for example, each of the outcome curves shown in Figure 2. Curve A would reflect a system in which rewards are not contingent on performance, while curve B would signify a system in which outcomes are slightly related to performance. Curve C shows the case in which high

Figure 2
Some Possible Outcome Curves



performance is substantially rewarded and low performance penalized. Finally, there are the mixed curves of D and E which show high correspondence between reward and performance over one end of the performance scale but virtually no contingency at the other end. Curve D shows the case in which low performers are severely penalized, while there are no special rewards for performing above a certain level. Curve E shows the situation in which performance is not rewarded until a relatively high level, and at that point rewards are lavished upon the individual. These are obviously only a sample of the possible outcome curves that could be generated by an enterprizing administrator (see Naylor et al., 1980, for some additional alternatives), and pay is only one type of outcome that could be applicable to the figure.

When examining the curves in Figure 2 it is clear that the simple recommendation to make outcomes contingent on performance does not provide much of a guideline. Even without considering possible side effects of extrinsic rewards on intrinsic motivation, one can see that each form of contingency may have a different practical result. Consider the following six common criteria of a reward system:

1. Motivation/Arousal
2. Information/Feedback
3. Retention of Best Employees
4. Expulsion of Worst Employees
5. Perceived Equity and Cooperation
6. Social Responsibility

If one wanted to maximize the motivation and arousal of faculty, a steeply contingent curve (C) would be called for, since each increment in performance would be associated with substantial reward or penalty. The mixed curves (D and E) would also be arousing for individuals near the discontinuities that occur at either the low or high ends of these curves. Yet, at other locations on the mixed curves, and on the more gently sloping as well as non-contingent curves, only low levels of arousal would take place. Arousal of faculty might be an important purpose of a reward system if low performance has become a norm within the institution, and if it can be assumed that greater effort will lead to greater teaching and research effectiveness. However, when faculty are already motivated highly, greater arousal may have some undesirable side effects (e.g., reduction in creativity or "burn-out").

If one wanted to use rewards primarily as an information and feedback mechanism, then any curve that demonstrates contingency may be useful. Because the correlation between outcome and performance would be the same for either the steeply or gently sloping curve, the feedback potential of each would be the same. Therefore, if faculty are already motivated to perform in desirable ways (e.g. good teaching

and research), the major purpose of such a reward system would be simply to provide additional feedback on one's performance.

Sometimes a major purpose of contingent reward schemes is to alter the composition of personnel in an organization. By making outcomes highly contingent on performance, the intent of some administrators is to make the highest performers most satisfied and the lowest performers least satisfied, resulting in retention in the best faculty and expulsion of the worst. In fact, one could argue that non-contingent reward schemes have exactly the opposite effect, since the best faculty would have the greatest number of outside alternatives and the lowest performers would be lucky to stay where they are. What Figure 2 shows, however, is that a steeply contingent curve (C) is only a partial solution to these problems, and that curve D may reduce the "deadwood" at a faster rate, while curve E would be more likely to retain the top performers.

When an important organizational goal is to achieve cooperation among members of an institution, differential rewards can often constitute a source of friction. Inequities can arise easily when faculty are paid differentially or selectively given privileges, especially if such disparities are not perceived to be based on differential inputs. For example, many arts and science faculty on the Berkeley campus were disgruntled by the Regents' recent decision to offer a special salary schedule to some professional schools. They felt inequity because of the firm belief that the inputs of a literature scholar are just as valuable as those of an engineering professor. If cooperation is paramount, then only those contingent rewards that can be justified or accepted by the membership should be considered. It is difficult to draw generalizations on this criterion, however, since the perception of equity is a very elusive and fluid construct. Some social groups, if allowed to draw up their own reward scheme, will decide on strict equality, while other groups might perceive a flat relationship between behavior and outcome to be a very inequitable arrangement. In the Berkeley case, the administration presumably viewed faculty retention as a much more severe problem than potential losses in interdisciplinary cooperation.

As a final issue, one might consider some of the social responsibility consequences of various reward schemes. Frequently, the bottom end of an outcome curve is supported by social responsibility concerns (e.g., cost of living increases) and performance standards are relaxed for members nearing retirement or having personal difficulties. Advocates of contingent rewards would advise not disrupting the contingency between performance and outcome, but instead provide personal help and social responsibility through other channels (e.g., faculty loan program, disability payments). Others might argue that the

organization's culture is largely determined by responsibility concerns, and that the socially responsible organization will receive greater public support as well as find the recruitment of new members easier.

Some Limits to Traditional Control Systems

In examining closely the outcome curves of Figure 2 several problems arise. The first problem is that all of the curves, and especially those where outcomes are highly contingent on performance, rely upon external control. Yet, if we have learned anything from the recent research on intrinsic motivation, it is that salient external controls can reduce self-directed behavior on voluntary tasks (Sandelands, Dutton & Ashford, in press). While research on intrinsic motivation has not generalized well to non-voluntary behavior in industry, university faculty fit more of the preconditions for the undermining effect. Much of faculty behavior is voluntary in nature, sustained by intrinsic outcomes, and governed by norms for self rather than system control. Therefore, as more and more universities try to allocate carefully their shrinking resource base, we may find faculty jockeying for these externally administered rewards rather than seeking the intrinsic rewards of teaching and research. And, as extrinsic rewards can no longer be taken for granted, they may assume a greater role in the value system of faculty (cf. Alderfer, 1972), even to the extent of becoming a primary indicator of personal achievement as in industry. This greater emphasis on extrinsic rewards would be a mixed blessing for university administrators. On the one hand, administrators will gain greater control over faculty behavior as their attention turns to questions of resource allocation. However, under extrinsic motivation many of the desired actions of faculty (e.g. long hours with students and work on important research projects) can no longer be taken for granted. behaviors that do not lead to specific benefits at one's present institution nor are generalizable to another potential employer (as in the case of research publications) might be extinguished.

A second major limitation to traditional control systems pertains to their political assumptions. Most organizational behavior models of motivation assume that the employing organization is doing the motivating. Universities, by contrast, have a much stronger tradition of self-governance in which faculty shape their own sets of outcomes and paths to reach them. At the individual level, faculty often work out their own behavioral roles, selecting for themselves the desired mix of teaching, research and service. At the organizational level, faculty control is exercised by an interweave of committees, faculty senates,

or formalized procedures to influence decisions. Therefore, the management of faculty cannot be nearly so direct as it is in industry, requiring much more negotiation and consultation than business managers are used to.

In a sense, one could argue that managing faculty in a university system is very much like trying to control a loosely coupled system (Weick, 1976). Faculty may not always be interested in the outcomes administrators can provide, and when administrators do attempt to prescribe behavior they often must have their actions approved by some form of self government. Possibly even more frustrating to administrators is the fact that even those faculty who *are* interested in resources that are controllable by administrators may still not be attentive to administrative wishes. As a professional, the appropriate peer group for praise and symbolic reward is usually the faculty members' profession rather than the employing university. And, because the path of career mobility may be across universities rather than up through the ranks of a single institution, the most outstanding performers may be "free agents," ready to negotiate the most supportive conditions with several competing institutions.

What are university administrators to do in the face of so many "substitutes" for their leadership (Kerr & Jermier, 1978)? One path for administrators would be to discourage professional rather than local orientation in moving the institution away from a research tradition. In a parallel manner, administrators could also act to diminish self-governance and self-motivation by the rather heavy-harded control of behavior. Each of these alternatives would obviously negate the primary strengths of a university system and reduce higher education to just another industry. Therefore, an opposite path would have greater appeal, that of viewing administrators as facilitators rather than controllers. The role of facilitator would be one of designing the teaching and research environment so that it best meets the intrinsic interests of faculty. At the extreme, courses and teaching schedules could be designed to fit individual preferences, research support provided where needed, and physical facilities provided to increase faculty interaction and stimulation. The reality of limited budgets and oversubscribed resources, however, tends to move administrators away from the role of facilitators and much more toward the role of an enforcer of priorities or adjudicator of conflict. Demands from students, legislators, and other educational administrators all press for actions which frequently do not coincide with faculty interests. Therefore, administrators must often act in ways that channel faculty behavior in some concerted direction without, at the same time, suppressing intrinsic or professional interests—a difficult and unenviable task indeed.

From Individual to Organizational Achievement

To this point, the discussion of motivation has been entirely individualistic. No matter whether the emphasis has been upon extrinsic or intrinsic reward systems, the primary concern has been individua' achievement, with the assumption that collective utility is somehow a summation of individual products. When one assumes that universities want to reach collective as well as individualistic goals, however, some alternative models are suggested.

One recent model that has gained attention is the Japanese style of management. As Ouchi (1981) points out, Japanese organizations practice lifetime employment, slow promotion, implicit performance evaluation, non-specialization career paths, collective rather than individual responsibility, and holistic concern for the individual. While it is never precisely spelled out which one or combination of these organizational characteristics can contribute to productivity, and by what mechanism this might be accomplished, this syndrome of variables is often touted as an organizationally superior system. What seems to be involved is a greater bonding of individuals to the collective purposes of the organization, with greater willingness of employees to exert extra effort on behalf of the organization and greater cooperation among the organization's membership. Proponents of Japanese style organization (e.g., Hatvany & Pucik, 1981; Pascale & Athos, 1981) say that individual commitment to organizations is precisely what is needed to solve both our lagging productivity and persistent anomie among the workforce. Critics contend that all-involving organizations are a threat to individual freedom (e.g., Schein, 1981) and that a well managed Western style organization can be just as productive (e.g., Latham, Cummings, & Mitchell, 1981).

Universities are an odd mixture of American and Japanese styles of organization. Nearly all universities offer lifetime employment through tenure, use an evaluation system that is often slow and subjective, and encourage a merger between work and social life. In an isolated college town, for example, the role of a college professor can be extremely pervasive, with nearly all social life revolving around collegial relationships and with little opportunity for one to go "off-duty." Yet, cutting across these organizational features is a strong and often fierce emphasis on individual achievement. Tenure decisions are rarely based on cooperative efforts and joint projects, but instead rest upon concrete individual achievements. With academic departments, colleagues often serve simply as a source of social support (and perhaps disinterested readers of one's work) rather than as true collaborators, with collaboration sometimes reserved for colleagues at other institutions. The

results of this peculiar means of organizing universities does not appear particularly adverse (see, e.g., Weick, in this volume). Theoretically, one would expect intense personal involvement to result from the pervasiveness of the academic role, high levels of anxiety (and possible conformity pressures) to result from the lengthy and subjective review process, and extremely individualistic (and perhaps creative) behavior to result from the promotion and status system. For a university with goals of professional attainment and research excellence, the present system appears to work reasonably well. One frequent problem, however, is a lack of concern with cooperative activities and service to the collective enterprise. Consider, for example, the observations of Boris Yavitz, who recently retired from the deanship of Columbia University's Graduate School of Business:

> It becomes very clear after being in the dean's office for a short time that for an institution to achieve greatness you need the efforts, talents, and commitment of thousands of people in all kinds of areas . . . You're really looking, internally and externally, for loyalty to the institution, the belief in its values, and a personal relationship that will bind all these people together. (1982, p. 9)

As Yavitz notes, much of the useful behavior in academic settings goes beyond individual teaching and research, but has to do with providing energy and service to institutional needs.

Because much of the service and cooperative behaviors in universities go unrewarded, some logical advice would be to build explicit linkages between these behaviors and valued outcomes. One could imagine, for example, tenure and pay systems recognizing service and collegial relations as important role demands, thereby funnelling attention to collective as opposed to individual actions. The problem with this approach, however, is that the proper form of cooperation is difficult to prescribe, and rewarding service behaviors with extrinsic outcomes may precisely fit the conditions in which one's intrinsic motivation to help the institution is driven out.

Understanding Organizational Motivation

Recently, Lawler (1982) outlined a model for increasing organizational motivation, emphasizing the perceived linkage of both intrinsic and extrinsic rewards to organizational welfare. Because the model was derived from industrial experience it emphasized how extrinsic

rewards could be tied to organizational performance through various gain sharing plans. However, Lawler also notes that intrinsic outcomes can be tied to organizational performance. Rather than simply making jobs more interesting or meaningful on an individual basis, Lawler argues for mechanisms that may either increase the value of organizational outcomes or demonstrate how one's own actions will contribute to the collective product. Decentralized structures, participation and goal-setting are some of the procedures that Lawler recommends. Logically, one could add that managerial rhetoric, socialization and ceremonies of inclusion might all heighten the linkage between individual and organizational welfare. Consider, once again, Yavetz' job as an academic administrator at Columbia.

> You find yourself very quickly trying to muster those energies for a cause rather than as a *quid pro quo* for some return you can give in tangible form. It's amazing how an idea, a set of values, and a commitment to excellence can act as catalysts to bring together support for an institution. When you talk about how to pull a faculty together, your ability to reward financially is always limited. The University is always under budget constraints, but a faculty's dream of excellence and repute in individual fields and for the institution as a whole is a very powerful tool. As a result, whatever you can do to give the faculty a sense of belonging to a first-rate institution is a kind of direct payment for them. For a faculty much of that recognition comes from faculty research and reputation. (1982, p. 9)

What Yavetz describes is the common plight of university administrators who want to encourage organizational as opposed to individual motivation. His recommendations are somewhat parallel to Lawler's—the goal being to heighten the value of organizational performance and to somehow transmit these positive outcomes back to the individual members of the institution. Such an explanation of organizational service sounds like an expectancy model of organizational motivation. Yet, when one considers service work in all but its most glamorous forms, the behaviors seem to be maintained without much reward of either the intrinsic or extrinsic kind. University service is not often rewarded in a tangible manner through pay, promotion, or status. The work is usually not intrinsically interesting since, to most academics, administrative activities appear dull and unchallenging. The payoff for service work is not so direct as to see personal benefits from belonging to a slightly better institution, unless one's task is so vital as to cause clearcut advancement or the collapse of the institution. Unfortunately

most service work is routine with the possible benefits to the institution being incremental and the instrumental benefit to the individual being close to zero. Thus, understanding why one works for the collective purpose of an educational institution is not well answered by current models of motivation.

Moving from Hedonism to Altruism

As we look across the landscape of motivation research, the one thing that stands out in virtually all of our models of motivation is that they are elaborations of individual hedonism. In the reinforcement paradigm, motivation takes the form of a hedonism of the past since previous consequences strengthen or weaken the frequency of behavior. In the expectancy paradigm, hedonism of the future is most visible since individuals are posited to maximize their subjective expected utilities. When our models emphasize extrinsic rewards, they speak of the pursuit of tangible outcomes that are usually dispensed by external agents (e.g., supervisor or organization) and are peripheral to the task itself. When our models emphasize intrinsic rewards, the human pursuit emphasizes internally mediated outcomes that are central to the task or perceived to be an end in themselves. Thus, regardless of whether motivation models are future or past oriented or predicated upon intrinsic or extrinsic outcomes, they come in the form of hedonism . . . the pursuit of outcomes for self-gratification and pleasure.

Rather than forming more elaborate hedonistic models to explain service activities (e.g., Lawler, 1982), perhaps a better way to approach the issue is through an understanding of selfless or altruistic behavior. While most motivation models attempt to understand behavior by finding out "what's in it for the individual," a good part of individual behavior in fact may be non-hedonistic. Instead of viewing the individual faculty member as an intense calculator of personal costs and benefits, activities like service and perhaps even aspects of teaching and research, might be better explained by altruistic motivation. The individual may seek to expand the welfare of an institution, the profession, or even the general society, though the linkage to personal gain is unclear.

Prosocial Behavior and its Implications

Although organizational theories of motivation do not often include models of helping and cooperation, there has been an active stream of research on prosocial behavior within psychology, studying actions

that range from interpersonal cooperation and helping others in distress, to giving one's life to a cause. Explanations of prosocial behavior have been controversial. Some researchers, like those in organizational behavior, have subjected prosocial behavior to hedonic calculus, arguing that helping is due to the pursuit of social approval or the reduction of personal pain from observing another's suffering (Piliavin & Piliavin, 1973). Others have argued that prosocial behaviors are purely altruistic in which actions are self-sacrificial or without concern for one's own self-interest (Batson & Coke, 1981; Kreps, 1970). Somewhat between these extremes are those that posit that prosocial behavior is a product of internalized values for helping and that self-reinforcement governs these acts (Schwartz & Howard, 1981).

While it is not the role of the present paper to untangle the web of prosocial behavior, it is important to note that individuals are capable of appreciating the needs and plight of others and acting in a way that is primarily aimed at benefiting another party. Although many researchers have gone so far as to posit a gene for altruism (Campbell, 1975), it is more plausible that prosocial behavior is influenced by social and cultural norms. One would suspect, for example, that organizations would differ in the amount of prosocial behavior they encourage and that individuals within organizations would also differ on this dimension.

By suggesting that altruism can govern many individual actions some new areas of inquiry are opened. We might, for example, posit that educational administrators take on the role of the university, acting to maximize its outcomes even when the relation to personal gain is tenuous. The academic, likewise, may spend long hours on committee work, though the social reinforcement is minimal, the pay is non-existent, and the opportunity for personal research or career growth is negligible. The loyal academic may, for example, attempt to do what is best for the institution even though (as in a difficult tenure case) severe social costs can be suffered and few apparent personal benefits received. For some of these actions, power motives could be posited since the individual is actively involved with the inner workings and secrets of the institution. Yet, a more parsimonious explanation would be selfless behavior in which the individual assumes the organizational role and works for its welfare. Like empathic role-taking in which an actor assumes the place of the person in need, organizational role taking probably involves working for the welfare of the institution regardless of the linkage to specific individual outcomes.

If one were to derive a formal model of organizational motivation it might be represented as follows:

$$OM = I \times Prob(B \cdot O)$$

where OM = Organizational motivation
I = Identification with the Organization
B = Behavior of the Individual
O = Outcomes to the Organization.

No one has tested this kind of equation to see whether it predicts a set of organizational behaviors (e.g., university service) better than traditional expectancy models (e.g., Vroom, 1964; Lawler, 1973). However, when motivation is characterized as selfless rather than self-interested action, strategies for increasing motivation would logically change. The usual procedures of selecting salient outcomes and making sure these are contingent on performance become less important than binding individuals to their organizational roles. Thus, socialization practices that encourage identification, ceremonies that mark inclusion, and symbols that denote membership are all viable tools for building organizational motivation since they heighten empathy with the institution and with others inside the organization. Likewise, any procedure that increases the probability that one's actions will be helpful to the organization (e.g., Hackman & Oldham's, 1980, task significance dimension) would also be expected to contribute to organizational motivation. Finally, some attention should also be given to removing some of the personal costs for organizationally motivated behavior. Although helping behaviors may not be economically motivated, they would no doubt be reduced when their costs are high. Thus, it is only prudent to reduce competing role demands when high service loads are undertaken and to reduce any penalties for cooperative research ventures. These are but a few of the strategies an educational organization may wish to follow in furthering organizational rather than individual motivation.

Conclusion

This paper started with a short tour of prevailing motivation theories from organizational behavior. Traditional theories of individual motivation were outlined and their practical implications were discussed in terms of educational settings. Guidelines from current motivation theories were pushed to their limit, however, when outcome curves were examined in all their glory and extremity of form. Traditional reward systems were shown to have many practical limitations in educational settings. In addition, because most reward systems are derived from one of several self-interest models of motivation, their

relevance to educational roles is not complete. Therefore, as a possible explanation of organizationally-oriented rather than individualistic behavior, altruism was explored within educational settings and some possible ways to increase prosocial behavior were suggested.

What remains unclear at this point is whether it is possible to guide a university, or any other form of organization, using multiple modes of motivation. Can faculty strive to achieve individual stature within their own professions, work collectively on university projects, and devote the time necessary to teach in an organized and personal manner? Theoretically, we may need separate models to explain each of these different behaviors in educational institutions. Also, practically, we may find it difficult to direct a system that fosters all of these criteria simultaneously, since the kinds of procedures most relevant to an individually-oriented system may interfere with organizational motivation. Therefore, in the end, one must return to the caveat mentioned at the beginning of this paper. Motivation models, as I noted, may serve as a tool to change behavior or as a lens to view the organization, but they cannot assure the effectiveness of the system. As a technology, motivation theories can identify side effects and complexities resulting from behavior; they cannot tell us which behaviors are most valuable in building an effective institution.

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MOTIVATION ENHANCEMENT THROUGH WORK REDESIGN

Greg R. Oldham and Carol T. Kulik

This article focuses on the possibility of restructuring the jobs and work experiences of college and university faculty members in an effort to enhance their motivation, productivity, and personal and work satisfactions. A considerable amount of research has demonstrated that increasing the amount of responsibility, autonomy, and variety in jobs often can result in substantial improvements in the work performance of employees, and in their satisfaction with the work itself (see Katzell, Bienstock, & Faerstein, 1977 and Locke, Feren, McCaleb, Shaw, & Denny, 1980 for reviews). Unfortunately, nearly all of this previous research has examined the consequences of changing the jobs of employees in the *industrial sector*. Very little research has focused on the appropriate way to restructure faculty jobs—or on the possible outcomes of this restructuring for both the employee and the academic institution.

This situation really is not surprising given the circumstances that, in the past, have surrounded faculty members and administrators of colleges and universities. Research has shown that faculty members in years past typically perceived their jobs as being of high quality (that is, as containing high levels of responsibility, freedom, discretion, etc.—see McKeachie, 1979, for a review). Indeed, many faculty members describe themselves as attracted to academic positions precisely because of the job characteristics academic positions provide (Toombs & Marlier, 1981). Given all of this, there would appear to be little need to consider methods for restructuring faculty jobs since, as traditionally designed, the jobs have already been structured appropriately.

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Greg R. Oldham is professor in the College of Commerce and Business Administration; Carol Kulik is a doctoral candidate in the Department of Business Administration, University of Illinois at Urbana-Champaign.

Second, the economic climate confronting colleges and universities in previous years was very favorable. The student population explosion stimulated increased government financial support of higher education which, in turn, led to a plentiful supply of academic jobs. Professors from most disciplines had excellent job mobility in this climate. If a faculty member were dissatisfied with the job rewards offered by a college, there was a strong likelihood that he or she could move to another academic institution that provided more valued rewards. Consequently, one would expect a good "fit" between the faculty member and the job to evolve naturally, without intervention on the part of a college or university administrator. Finally, if problems involving faculty motivation or satisfaction did emerge, the administrator of the institution had at his or her command a variety of resources that might be used to remedy the problems. That is, since budgets were relatively healthy in previous years, an administrator could enhance the motivation of a faculty member simply by allocating resources in the form of salary increases, new research-related equipment, sabbatical leaves of absence, etc. There was really no need to consider job restructuring seriously, since other methods were readily available and easily implemented.

Given the economic conditions now facing America's institutions of higher education, it is the rare college or university that can fail to attend to the quality of jobs it provides faculty. Unlike previous years, universities and colleges now have few discretionary resources that can be used to enhance faculty motivation or satisfaction. Due to budget reductions, changing the nature of faculty jobs may be one of the few strategies still available to administrators that might conceivably result in desirable outcomes for both the faculty members and the institutions in which they are employed. Second, there is good reason to believe that the jobs of faculty members in the 1980's are in need of change and restructuring. As McKeachie (1982) suggests, as academic budgets become tight, there is a tendency to centralize more and more decisions in higher level administration and to place more and more restrictions on the autonomy of individual faculty members. An example of this phenomenon is provided by Richard Anderson, director of a study on changes in academic institutions between 1970-1980. Anderson describes a community college that experienced an enrollment drop of 3 percent. In a zeal for efficiency, the chancellor of the college unilaterally instituted minor budget cuts, program changes, and work rules. Among the latter was a requirement that faculty members be in their offices and classrooms 25 hours a week—a rule that directly affected the autonomy of faculty jobs. Interestingly, as a result of this reduction in autonomy, faculty who had been working 50 or 60 hours a

week began working the prescribed 25, and no more (cited in Magarrell, 1982).

This entire situation is exacerbated by the limited job mobility experienced by faculty members in most disciplines. Due to reduced enrollments and slashed university budgets, faculty may have few opportunities to change jobs and, thereby, obtain the kind of work experiences they value. In essence, many faculty members are now "stuck" (Kanter, 1979) in their jobs and are likely to remain so until economic conditions facing colleges and universities improve dramatically.

What are the probable consequences of this state of affairs—that is, of faculty members being trapped in low quality jobs with little hope of obtaining financial incentives for performing well? Research in the organizational sciences suggests that individuals in these circumstances often feel disillusioned, frustrated, and angry toward their job and their employer (O'Toole, 1973). Indeed, it is possible that faculty members will actually reduce their contributions to their jobs by investing relatively little time and energy in their teaching, research, or public service activities. Recent research, again directed by Richard Anderson, provides support for some of these arguments. The attitudes and opinions of 6900 faculty members from 93 institutions were assessed in 1970 and were compared with the responses of 5100 faculty members from the same institutions in 1980. Results showed that in 1970 approximately 61 percent of the faculty indicated that their morale was high while only 51 percent indicated that it was high in 1980 (cited in Magarrell, 1982). Similar results were obtained for the measure of faculty commitment to the acknowledged objectives of the college. The researchers involved in the study concluded that these results were largely caused by decreases between 1970 and 1980 in the quality of faculty jobs (e.g., decreases in the authority of faculty and in their involvement in important decisions).

These results suggest that there may now be substantial problems involving the motivation and satisfaction of faculty members. Moreover, it is also probable that many of these problems are caused by the nature of faculty jobs. What is to be done to remedy this state of affairs?

One possibility that has received considerable attention in recent years is entitled *work redesign*. In general, this approach involves expanding and enriching a job such that the jobholder experiences it as complex, meaningful, and challenging. A number of specific, alternative approaches to work redesign have been developed by theorists and researchers in the area of organizational behavior. These include activation theory (Scott, 1966), motivation-hygiene theory (Herzberg,

1966, 1976), sociotechnical systems theory (Trist, Higgin, Murray, & Pollock, 1963; Trist, Susman, & Brown, 1977) and job characteristics theory (Hackman & Lawler, 1971; Hackman & Oldham, 1976, 1980). The approach to be focused on in this chapter is job characteristics theory. It is described in detail in the paragraphs that follow.

Job Characteristics Theory[2]

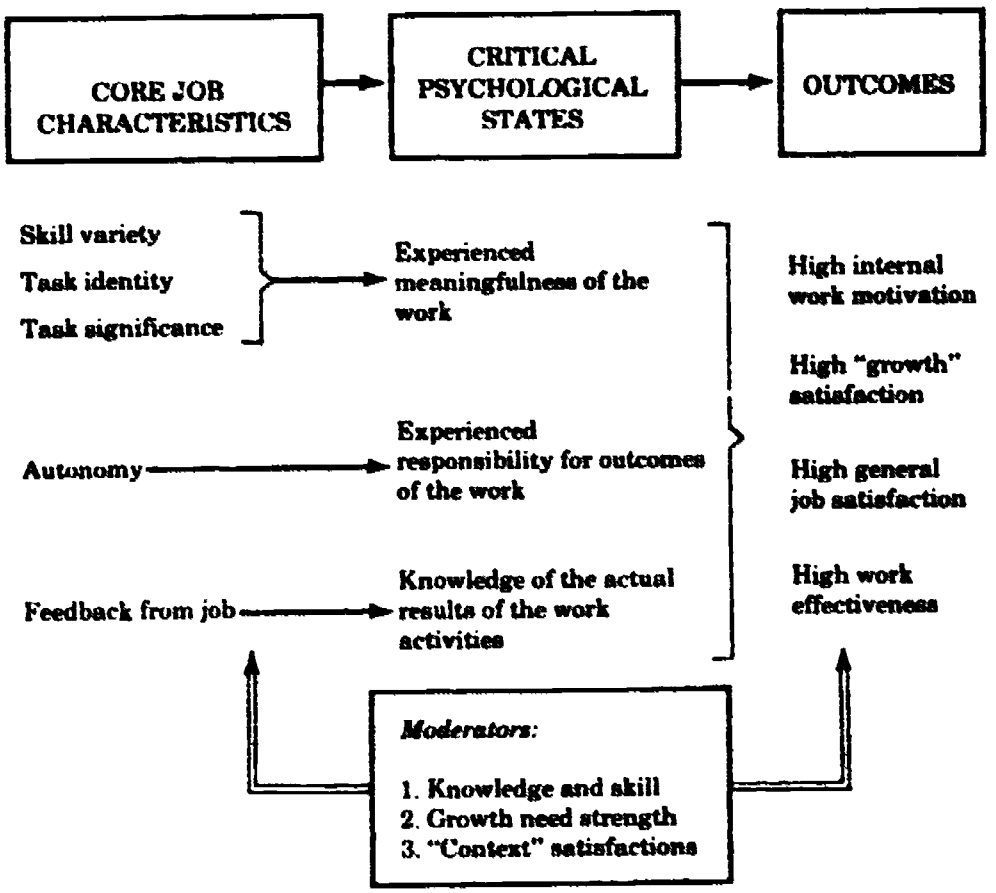
The basic job characteristics model is presented in Figure 1. At the most general level, the theory specifies how employees' jobs might be designed to enhance the work outcomes of productivity, motivation, and satisfaction. In particular, the theory suggests that three "critical psychological states" must be experienced by each employee if these desirable outcomes are to emerge. First, the person must *experience the work as meaningful*. That is, the individual must feel that the work he or she does is generally worthwhile, valuable, or important by some system of values he or she accepts. Second, the individual must *experience responsibility* for work outcomes. The individual must feel personally accountable and responsible for the results of the work he or she does. Finally, the person must have *knowledge of the results* of his or her work. That is, the individual must know and understand, on a continuous basis, how effectively he or she is performing the job.

Job Characteristics Theory suggests that all three of these critical psychological states must be present *simultaneously* if high levels of productivity, motivation, and satisfaction are to develop and persist. If any one of the psychological states is absent (e.g., the individual experiences the work as meaningful and responsible, but is unable to find out how well he or she performs the task), one or more of the outcomes would be expected to drop substantially.

The three psychological states are, by definition, internal to persons and therefore not directly manipulable in designing work. What is needed are reasonably objective, measurable, changeable properties of the work itself that foster the psychological states, and through them, enhance work outcomes. Research suggests that five specific job characteristics might be useful in this regard (Hackman & Lawler, 1971; Hackman & Oldham, 1976; Turner & Lawrence, 1965). Three of

[2]The theoretical position presented in this section is developed in more detail by Hackman and Oldham (1976, 1980), Oldham and Hackman (1980) and by Oldham, Hackman, and Pearce (1976).

Figure 1
The Job Characteristics Model



(Hackman & Oldham, 1980, p. 90)

these job characteristics are expected to contribute to the experienced meaningfulness of the work, one to experienced responsibility and one to knowledge of results.

Toward Experienced Meaningfulness

The three characteristics of jobs that seem especially powerful in influencing the experienced meaningfulness of work are (1) skill variety, (2) task identity, and (3) task significance.

Skill variety: The degree to which a job requires a variety of different activities in carrying out the work, involving the use of a number of different skills and talents of the person.

When a task requires jobholders to engage in activities that challenge or stretch their skills or abilities, they almost invariably experience the task as meaningful, and the more skills involved, the more meaningful the work is likely to be. The substantive content of the materials being dealt with is not critical in establishing experienced meaningfulness. Any piece of work that taps and stretches the performer's skills and talents can be meaningful to a person.

Task identity: The degree to which the job requires completion of a "whole" and identifiable piece of work, that is, doing a job from beginning to end with a visible outcome.

When employees have an intact task, such as providing a complete unit of service, they tend to see that task as more meaningful than is the case when they are responsible for only a small part of the job. For example, a social worker who is responsible for dealing with *all* the needs of his or her clients will find the work more meaningful than a colleague who deals only with issues relating to income maintenance.

Task significance: The degree to which the job has a substantial impact on the lives of other people, whether those people are in the immediate organization or in the world at large.

Experienced meaningfulness of the work usually is enhanced when employees understand that the work being done will have a substantial impact on the physical or psychological well-being of other people. When people know that what they do at work will affect someone else's happiness, health, or safety, they care about that work more than if the work is largely irrelevant to the lives of others.

Toward Experienced Responsibility

The characteristic that creates feelings of personal responsibility for the work outcomes is autonomy.

Autonomy: The degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out.

When the job provides substantial autonomy to the persons performing it, work outcomes will be viewed by those individuals as depending largely on their *own* efforts, initiatives, and decisions, rather than on the adequacy of instructions from a manager or administrator. As autonomy increases, individuals feel more personal responsibility for successes and failures that occur on the job and are more willing to accept personal accountability for the outcomes of their work.

Toward Knowledge of Results

Knowledge of results of one's work is affected directly by the amount of feedback one receives from doing the work.

Job feedback: The degree to which carrying out the work activities required by the job provides the individual with direct and clear information about the effectiveness of his or her performance.

The focus here is on feedback directly from the job, as when a physician treats a patient and the patient gets well. Here the knowledge of results derives from the work activities themselves, rather than from some other person (e.g., a manager) who collects data or makes a judgment about how well the work is being done.

The Overall Motivating Potential of a Job

Because a job can be high on one or more of the five characteristics described above and simultaneously quite low on others, it is useful to consider the standing of a job on each of the characteristics. Nevertheless, it also can be informative to combine the five characteristics into a single index that reflects the *overall* potential of a job to foster motivation and satisfaction on the part of jobholders.

A job high in motivating potential must be high on at least one of the three characteristics that prompt experienced meaningfulness, *and* high on both autonomy and job feedback as well, thereby creating conditions that foster all three of the critical psychological states. When numerical scores are available, they are combined as follows:

$$\text{Motivating Potential Score (MPS)} = \left[\frac{\text{Skill variety} + \text{Task significance} + \text{Task identity}}{3}\right] \times \text{Autonomy} \times \text{Job feedback}$$

As can be seen from the formula, a very low score on *either* autonomy or feedback will reduce the overall MPS of the job substantially. This is as it should be, because the model requires that both experienced responsibility and knowledge of results be present if desirable outcomes are to emerge, and autonomy and feedback, respectively, are the characteristics that prompt those two psychological states.

On the other hand, a low score on one of the three characteristics that contributes to experienced meaningfulness cannot, by itself, seriously compromise the overall motivating potential of a job. The other characteristics that prompt meaningfulness can, to some extent, compensate for low scores on one or even two of these chracteristics.

In summary, in this section five specific job characteristics have been described that are expected to create conditions for high productivity, satisfaction, and motivation on the part of the individual em-

ployee. Work redesign essentially involves improving the standing of a job on these characteristics—or enhancing the overall motivating potential of a job. Before describing the specific strategies that might be used to redesign the jobs of faculty members, we turn to a discussion of the conditions under which work redesign is necessary *and* feasible in the organization.

Assessing the Need for and Feasibility of Work Redesign

The job characteristics approach suggests that four issues be addressed before plans are laid for redesigning the jobs of employees. Each of these is described briefly below.

Employees' Motivation, Satisfaction, and Performance Effectiveness

The first issue involves whether there is a demonstrable *need* for the redesign of work, or whether some other approach to change (or none at all) is more appropriate. We suggested earlier that the outcomes of well-designed work have primarily to do with the work motivation, satisfaction, and performance effectiveness of employees. But sometimes work redesign is implemented when employees are basically satisfied with their jobs and the quality of their work is fully acceptable. Other times, there are real problems in effectiveness, but these problems have little to do with the motivation of the people who do the work. It might be, for example, that the roots of the problems are in an error-prone computer or in faulty research equipment. Work redesign is unlikely to be an effective intervention in either of these circumstances.

If work redesign is to be implemented in appropriate circumstances, it is essential that some data be brought to bear on the performance, motivation, and satisfaction of employees *prior* to actual job restructuring. Diagnostic instruments (e.g., the Job Diagnostic Survey, Hackman & Oldham, 1975, 1980, or the Survey of Organizations, Taylor & Bowers, 1972) might be useful in determining whether or not motivation and satisfaction are at issue.

The Design of Employees' Jobs

Second, work redesign is appropriate only if there is reason to believe that the observed problems have their roots in the motivational properties of the work itself. Interviews with employees about how they see their jobs can be quite helpful in making this assessment as can the previously mentioned Job Diagnostic Survey (JDS). Indeed,

the JDS provides measures of each of the job characteristics described earlier. By comparing the job characteristic scores of employees in the focal organization with JDS national norms (unfortunately not yet available for faculty jobs), one can determine what the specific strengths and weaknesses of that job are and what the focus of any changes in the job should be (see Hackman & Oldham, 1980 for a detailed discussion of this procedure). That is, such a diagnosis will clarify which job chracteristic(s), if any at all, are in need of redesign. For example, the diagnosis may show that skill variety is the job characteristic most in need of change in a given academic unit.

The Readiness of Employees for Work Redesign

A third issue that requires attention prior to work redesign is whether it is feasible to redesign individual jobs, given the characteristics of the people who do them. That is, are employees likely to respond eagerly to increased complexity and challenge, or is it more probable that they will react tentatively or negatively to redesigned work?

Job Characteristics Theory suggests that three characteristics of people are especially important in understanding who will (and who will not) respond positively to high MPS jobs. These three characteristics are identified as "moderators" in Figure 1 and are examined separately below.

First, employees must have sufficient *knowledge and skill* to perform the redesigned work effectively. People who are not competent enough to perform well on the newly designed job are likely to experience a good deal of frustration and unhappiness at work, because the job is personally rewarding and meaningful to them and they are unable to perform effectively on it.

Second, the *psychological needs* of people can be critical in determining how vigorously a person will respond to a job high in motivating potential (Hackman & Lawler, 1971; Hackman & Oldham, 1976). Those people with strong needs for personal growth and self-direction at work are most likely to appreciate and respond enthusiastically to the increased opportunities for personal accomplishment provided by a job high in motivating potential. Individuals who have relatively low growth need strength may be less eager to exploit the opportunities for learning and personal accomplishment provided by complex, high MPS jobs.

Finally, employees' reactions to redesigned work may also be affected by their satisfaction with aspects of the *work context* (e.g., pay, job security, co-workers, and managers). When employees are not satisfied with one or more of these contextual factors, their ability to

respond positively to a job high in motivating potential may be severely diminished. The reason is that active dissatisfaction with such contextual factors distracts the attention of employees from the work itself and orients their energy instead toward coping with the experienced problems. Only when such problems are resolved and employees become relatively satisfied with the work context are they able to experience, appreciate, and respond to the inherent richness of well-designed jobs.

In summary, only those employees who are sufficiently competent to perform the redesigned tasks, desirous of growth satisfactions at work, and relatively satisfied with the work context are likely to prosper on work that has been redesigned to be complex and challenging. Therefore, prior to work redesign, it is essential to bring some kind of systematic data to bear on these individual characteristics. If a preliminary diagnosis indicates that one or more of these three variables is low or absent, it will be necessary to remedy these difficulties before proceeding with a full-scale work redesign program. For example, if employees have relatively low growth needs, it might be advisable to proceed slowly and cautiously with work redesign, perhaps by initially changing one or two job characteristics. This procedure may rekindle the "spark" of growth motivation as they become comfortable—and find they can be successful—in handling complex tasks on their own.

The Presence of "Roadblocks" in the Organizational Environment[3]

The final issue involves the feasibility of work redesign given the presence of "roadblocks" in the organizational unit as it currently exists. These roadblocks may take many shapes and forms, but often have to do with rigidities that are built into a number of existing organizational systems. That is, it is suggested that many organizations contain systems that can actually prevent the installation of meaningful changes in how work is designed.

One such system is the *technology* that is in-place in the organizational unit. In certain types of technologies (e.g., assembly line or mass production types) it may be impossible to introduce meaningful

[3]Very little systematic research has been conducted on the limitations of work redesign as a consequence of constraints imposed by organizational systems. Much of the discussion presented in this section is based upon our observations of various work redesign projects in the industrial sector. We present these issues in order that administrators might be better able to anticipate possible difficulties surrounding the implementation of work redesign in their institutions and hope that our discussion may stimulate additional research in this area.

changes in the design of work. The reason is that such technologies permit little employee discretion and are designed to accommodate only segmented, routinized jobs. The only redesign activities likely to be feasible under these conditions are those that involve relatively small changes in the work itself (e.g., giving employees some choice of equipment). However, this usually amounts to meddling with the work rather than redesigning it—and the effects are likely to be neither substantial nor long-lasting.

Another potential roadblock to the implementation of work redesign is the organization's *control system*. By control system we refer to any "mechanical" system in place in the organization that is designed to control and influence employee behavior in an impersonal, impartial, and automatic fashion (Reeves & Woodward, 1970). Control systems include budgets and cost accounting systems, production and quality control reports, and attendance measuring devices.

Although control systems help organizations minimize redundancies and inefficiencies in carrying out work, they also tend to limit the complexity and challenge of jobs (Clegg & Fitter, 1978). Because it is important to pinpoint accountability, control systems often specify in considerable detail exactly who is to do what specific tasks—thereby restricting the autonomy in employees' jobs. Also, control systems often rigidify and standardize the work, so that performance indices can be developed and applied to all employees and work activities within the system.

To date, control systems in colleges and universities tend to have been relatively loosely structured. Administrative monitoring of faculty performance and expenditures has been left to infrequent periodic evaluation. However, with increased budget stringencies, we may see carefully programmed cost control systems in higher education that actually prevent the installation of meaningful work redesign.

Another organizational system that can influence the scope of employees' jobs and constrain the feasibility of work redesign is the *structural system*. This may be the roadblock that is most relevant for educational organizations. By structural system, we refer to several properties of departmental and overall organizational structure such as, size of the unit, configuration (or number of hierarchical levels), formalization (or the extent to which rules and procedures are written), and centralization (or the extent to which the locus of decision making is in the upper levels of the hierarchy).

Several studies have shown that large, mechanistic structural systems tend to be associated with relatively simple, fractionalized jobs (cf. Oldham & Hackman, 1981; Pierce, 1979; Rousseau, 1978). Specifically, employees tend to experience little autonomy, discretion, and variety in their jobs when they work in organizational systems charac-

terized by many standardized rules and procedures, centralized decision making, and relatively tall configurations. Thus, attempts to introduce substantial changes in employees' jobs under these conditions are likely to fail because of the nature of the structural system itself. The reason is that it may be impossible to introduce meaningful changes in jobs because the rules, regulations and procedures associated with mechanistic structures limit by policy the amount of responsibility and challenge permissible in many jobs.

All of this suggests that jobs are likely to be meaningfully enriched only when work redesign programs are implemented in organizations that might be characterized as organic in nature (i.e., decentralized, informal, and flat). When an organization's structural properties are mechanistic and rigid (i.e., centralized and formalized), the probability of meaningful work redesign is significantly diminished.

While the typical college or university may now be characterized as organic in nature, pressures are mounting in many systems to centralize decision making as a means of cost control. It is probable that such tendencies will make the implementation of work redesign much more difficult in the years ahead.

At this point it is not clear when the organizational systems described above most powerfully constrain the implementation of a work redesign program. That is, it is not clear if the structural system is more likely to act as a constraint in manufacturing organizations or in educational organizations—or if the technological system is more likely to act as a constraint in public or private organizations. However, it is clear that the hospitality of the organizational systems to contemplated changes in jobs should be carefully diagnosed prior to initiating a work redesign program. If the in-place systems are inappropriate for the proposed job changes, an informed decision then can be made about which direction to proceed (e.g., scrapping the work redesign project, and changing the systems).

Applications of Work Redesign to the Jobs of College and University Faculty

This section focuses on the implications of Job Characteristics Theory for the redesign of faculty jobs. In the pages to follow we describe several specific strategies that might be used to improve the standing of a faculty job on the five core characteristics outlined earlier. This list of strategies is not intended to be exhaustive but rather illustrative of the kinds of changes that might be useful in simultaneously enhancing the productivity of faculty members and the quality of

their work experiences. And while some of these strategies may be similar to other "faculty development" efforts, it is hoped that they will illustrate how Job Characteristics Theory might be used to generate imaginative changes in the design of work. To this end, each of the core characteristics is listed below along with strategies that may be especially powerful in "boosting" this characteristic.

Task identity. To enhance identity, faculty members should be provided with personal and continuing responsibility for a large segment of work in the college or university. The notion is that individuals who are responsible for a complete unit of a task will find the work more meaningful than the individual who deals only with small segments of a task.

For example, faculty members typically are involved with a group of students once, while these students are enrolled in the individual's class. As a result of this, task identity may be low since the faculty member is involved only with a very small part of a given student's academic career. One possible way to enhance task identity in this context is to give the faculty member the opportunity to teach one group of students for an *extended period* (e.g., three or four semesters). By giving the individual continuing responsibility for one group of students, the faculty member should more readily identify with the students and feel that he or she is contributing a greater amount to their total educational experience.

Most faculty members serve on a variety of committees (e.g., admission committees, placement committees) and the membership of these committees typically changes on a yearly basis. Under these circumstances, the faculty member has little opportunity to identify with the committee assignment or, very likely, to complete the task he or she actually began in the committee.

Task identity might be enhanced here by giving a faculty member continuing responsibility for a particular committee assignment until that assignment has been fully completed. Thus, if a committee were charged with redesigning an M.A. or B.A. program, the committee members would remain with the assignment until the program redesign was completed. In this way, committee members have an opportunity to exprience a sense of completion *and* to personally identify with a finished product.

Skill variety. To increase skill variety, the faculty member should be allowed to engage in a variety of different activities, involving the use of several different skills. The idea is to create an academic job that constantly challenges and stretches the faculty member's skills. Several specific strategies that might be used to enhance variety are described below.

Many faculty members are required to teach the same subject matter each semester they are in residence at the college or university. Although some individuals might adapt well to such a schedule, many others are likely to find it far too routine for their tastes. One way to enhance skill variety in this situation is to provide faculty with opportunities to teach new and unique courses they have never before taught. While there may be some start-up costs involved as the faculty member immerses himself or herself in new subject matter, the benefits could be substantial. The new material could challenge the individual's abilities and provide the individual with a different perspective on his or her area of specialization.

Just as faculty members might benefit from exposure to other course material in their departments, others might benefit from exposure to subject matter from an entirely different discipline. Thus, another way to enhance skill variety is to provide faculty with release time for study in a second discipline. In addition to providing the faculty member with a substantial, new challenge, study in a second discipline also might serve to enrich the faculty member's own research program by providing the individual with a fresh perspective on a given research problem.

There are a number of forms that study in a second discipline might take. For example, a faculty member might be given a full year off with pay so that he or she could become completely involved in coursework and independent study in a second discipline. Alternatively, the faculty member might be given a small amount of release time (e.g., one course during the academic year) to enable him or her to serve as an "apprentice" to a noted scholar in some discipline of interest. Both of these options, while costly, may have long-term benefits both for the personal development of the faculty member and for the continued growth of the academic unit.

Task significance. To enhance task significance, the faculty member must be allowed to develop a sense of how his or her work affects people either inside or outside the boundaries of the college or university. Once faculty members realize that what they do affects someone else's happiness or personal growth, they will begin to see their work as meaningful and significant. How can increases in task significance be achieved? Two possibilities are suggested below.

Faculty members often are required to teach very large class sections and seldom have the opportunity to establish a personal relationship with students. Without establishing a personal relationship it may be very difficult to observe a student's growth or to attribute at least part of that growth to the faculty member's own teaching skills (McKeachie, 1982). However, if a faculty member were occasionally given the chance to teach smaller classes or seminars, it may be far

easier to understand how his or her classroom performance affects the students' lives. Moreover, since long-term personal relationships often are established in small classes, the instructor may be able to observe for many years the impact of his or her work on the lives and careers of young people.

Second, all departments have policies that very substantially influence the lives of faculty members, academic professionals, and clerical staff. For example, pay, promotion, sabbatical, and teaching assignment policies touch the lives of all of those mentioned above. Unfortunately, these policies often are viewed as rigid and unchangeable. Moreover, the individuals who are affected by the policies seldom have a chance to influence them. If faculty members were given such an opportunity, it is very probable that the policies would become more sensitive to their own needs and desires. In addition, since the policies affect the lives of others, the faculty member involved in shaping the policies is almost certainly going to experience his or her work as significant and meaningful.

Autonomy. To increase autonomy at work, the faculty member should be given increased responsibility and authority to perform the job exactly the way he or she desires. In essence, enhancing autonomy implies removing constraints that prevent the jobholder from controlling his or her own work. Several specific strategies might be especially useful in enhancing a faculty member's job autonomy.

In many instances, decisions concerning the focus and direction of courses are made *independently* of the faculty member actually assigned to the course. For example, textbooks and course outlines frequently are selected by an administrator or curriculum committee without even consulting the faculty member who will be teaching the course.

Enhancing autonomy in this case would involve moving toward faculty control over course content. This might begin with the administrator consulting with the instructor prior to selecting a textbook and/or course outline. Eventually, however, only general guidelines for the course should be provided to the instructor—the faculty member should have complete authority to select course materials and teaching methods personally, without checking with anyone else.

In the traditional college and university, faculty members are required to teach two or three courses each semester or quarter regularly, without exception. There is little expressed concern over how this schedule fits with a faculty member's research program or personal lifestyle. The net effect, unfortunately, is to substantially constrain the level of freedom and discretion the faculty member experiences at work. By increasing the flexibility of this teaching schedule, the

autonomy of the faculty member might be greatly enhanced. For example, faculty members might be permitted to teach all of their classes in one semester or two quarters if they feel this schedule will better mesh with their research programs. Although faculty might have to "trade" courses with their colleagues to ensure course coverage, this approach should substantially enhance the faculty member's autonomy and discretion at work.

A frequent complaint of many instructors is that they feel constrained by their day-to-day duties. Faculty often feel they have too little time to keep up with the latest developments in their field, to develop new teaching approaches, and to do a good job of preparing their classes (Lavrakas, 1981). One possible way to reduce these constraints and to provide faculty with increased autonomy and freedom is to create additional flexibility in the academic calendar. In essence, the college or university might reduce its instructional calendar by 10 or 15 days, thus providing faculty members with additional time to pursue their own interests (Lavrakas, 1981). If this approach is to be successful and autonomy is to be boosted, faculty must have authority to decide what activities they will pursue and the amount of time they will allocate to these activities.

Feedback. To enhance feedback, faculty members should have increased opportunities to learn how they are performing and whether their performance is improving or deteriorating over time. This feedback should be as direct, immediate, and regular as possible. Once again, there are many possible ways that feedback might be increased in the job of a faculty member. A few alternatives are discussed below.

Most faculty members receive feedback on their teaching performance only at the end of the academic semester or quarter, usually in the form of results from student evaluation questionnaires. Not only is this type of feedback rather narrow and limited, but it occurs at a time when it is impossible to alter teaching methods on the basis of the feedback. There are two implications here: First, that additional *types* of feedback be used to provide faculty with richer and more complete information about their teaching effectiveness. For example, it might be possible for faculty members to review videotapes of their classroom performance immediately after teaching a class. This method might be especially useful in pinpointing errors the instructor unknowingly makes in the teaching process.

Another implication involves the *timing* of the feedback. As suggested earlier, if feedback is to powerfully affect jobholders, it should be immediate. Thus, when feedback is withheld until the end of the academic semester, it loses much of its motivational value. If an instructor's classroom performance could be evaluated on multiple

occasions during a semester or quarter, it is very probable that there would be substantial benefits. This approach would allow the instructor to make alterations that could make the course meaningful for all involved.

Many faculty members also receive very limited and delayed feedback about the quality of their research programs. Individuals frequently receive information about the quality of their work from journal editors—and this feedback may not occur for months or even years after the completion of the research project. One way to change this state of affairs is to establish a forum at which faculty can receive feedback from colleagues about their research programs and about their ideas for future research. Clearly, the forum needs to be set up such that the feedback is as supportive and nonevaluative as possible. This approach would speed up the feedback process while providing faculty with invaluable assistance in improving the overall quality of their research.

Summary. The strategies for work redesign described above are illustrative of the types of changes that might be effective in enhancing the motivating potential of the job of a faculty member. Other specific changes also might be considered when contemplating the redesign of faculty jobs (e.g., giving a faculty member responsibility for managing one segment of a department's operations or offering faculty members special assignments that are filled with opportunities to exercise creativity and authority). While little research has documented the effectiveness of these or other work redesign strategies in boosting the productivity, satisfaction, and motivation of faculty members, considerable research has shown that such work redesign changes often produce very favorable outcomes among employees in the industrial sector (cf. Katzell et. al., 1977). However, it is clear that these and other work redesign strategies are only likely to be effective (a) if the job of the faculty member is low in motivating potential, (b) if the faculty member is prepared for the change, in terms of needs, skills, and context satisfactions, and (c) if there are few "roadblocks" in the organizational unit as it currently exists.

Supporting Redesigned Faculty Jobs

The work redesign changes described in this article involve providing faculty with substantially more autonomy, variety, and significance at work which, in turn, are expected to lead to improvements in work attitudes and behaviors. Unfortunately, jobs that are designed in this way may be incompatible with the management practices found in

traditional academic departments. The consequence, in many cases, is that new behaviors exhibited by employees on redesigned jobs are not supported by existing practices and may even be undercut by those practices. Under such conditions the new behaviors tend to extinguish, and the department persists pretty much as it was before the work was redesigned.

This state of affairs might be avoided if attention is given to the redesign of departmental practices at the same time faculty jobs are changed (cf. Locke et. al., in this volume). One of these practices is the evaluation and reward program. Most academic departments evaluate all faculty members in the department on identical criteria (e.g., research productivity, teaching effectiveness, etc.). Yet if a work redesign program is implemented and different strategies are applied to different faculty jobs, the traditional evaluation system may be inappropriate and, in fact, at cross-currents with the newly designed work. The reason is that different redesign strategies are likely to motivate faculty members to achieve different goals. For example, the redesign of one faculty member's job might involve providing the individual with continuing responsibility for managing an academic committee while another faculty member might be provided with release time for study in a second discipline. If these strategies were effective, both faculty members should be highly motivated—but in different directions. A traditional evaluation and reward system that failed to recognize as valuable and worthwhile the diverse activities prompted by these strategies might compromise the effects of the redesign program. Clearly what is needed is an evaluation-reward system that is flexible enough to recognize the value of *different* criteria. In this way, faculty members would be evaluated and rewarded for pursuing the goals the redesign strategy prompted them to achieve in the first place.

The new redesign program may also require the administrator of the department or college to be more sensitive and flexible than he or she was before the change. For example, the newly designed jobs are likely to require substantial learning on the part of the faculty member and may involve significant start-up costs as he or she adapts to the new challenges and responsibilities. It is probable that the administrator will need to let standards "slip" temporarily during this initial adjustment period. It is not clear exactly how long this adjustment period will last. However, it is conceivable that up to a year may pass before a faculty member begins to fully respond to the motivating potential of the newly designed job.

A final issue involves the way the work redesign program is managed by the departmental administrator. There is a tendency among many managers and behavioral science consultants to treat work redesign as

a "one-shot" panacea for all of the organization's ills—a program that can simply be installed and then left to generate all manner of beneficial effects. In fact, the redesign of work is much more a way of managing than it is a prepackaged "fix" for problems of employee motivation and satisfaction. And it may be necessary for the manager or administrator to continually revise and modify the work redesign program if it is to have long-lasting, desirable effects on both the employee and the organization.

For example, we find that some employees respond to work redesign programs by moving into a "growth cycle." These employees are so stimulated by their work that they seek even higher levels of responsibility and additional opportunities for on-the-job learnings. After a period of time, even those who were initially challenged and stimulated by a redesigned job may find that the job now provides insufficient opportunities for continued growth. In addition, faculty members' concerns often undergo major shifts over the career lifecycle. It may be discovered that the work aspects emphasized in the initial work redesign program are no longer among the most important and satisfying factors at a later phase.

If action is not taken for such employees, stagnation and disillusionment may result. It is the responsibility of the manager or administrator to continually monitor this situation and to take actions to ensure that such outcomes do not emerge. Appropriate actions might involve "redesigning" the work redesign program on a periodic basis and providing employees with new challenges and responsibilities that were not provided initially. Actions such as these on the part of the administrator are likely to have substantial benefits for the faculty member in a growth-cycle, and are likely to ensure the long-term vitality of work redesign in the academic department.

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JOB SATISFACTION AND ROLE CLARITY AMONG UNIVERSITY AND COLLEGE FACULTY

Edwin A. Locke, William Fitzpatrick and Frank M. White

While job satisfaction has been one of the most frequently studied phenomena in the fields of industrial and organizational psychology for several decades (Locke, 1976), relatively few of these studies have involved college and university faculty. Such studies are of potential interest, since it has been argued that the academic profession has a number of unique features, e.g., the inherent conflict between teaching and research (in universities); the dual, institutional and professional, orientation; the tenure system; high autonomy, etc. (Light, 1974).

The present paper reports an empirical study of job satisfaction among college and university faculty. It should be emphasized that this is not intended as a definitive study of faculty morale or a test of any well-established theory of job satisfaction. Rather the study should be viewed as exploratory in nature and as a stimulus to further, more elaborate studies.

It would be helpful in exploring faculty morale if there were well-developed and validated theories to guide research, but unfortunately, few such theories exist. The two most well-known theories, those of Maslow and Herzberg, have shown minimal ability to account for the findings of research to date.

Maslow, for example, claimed that needs were satisfied in hierarchical order, starting with physiological needs, followed by safety needs, social needs, ego needs and self-actualization needs (the latter term was never defined intelligibly). According the Maslow, needs at a given

Edwin Locke is professor of Organizational Behavior and Industrial Relations at the University of Maryland; William Fitzpatrick teaches in the Department of Management at Villanova University and Frank M. White is coordinator of Computer Studies at Catonsville Community College.

level only became salient or motivating when needs at the level(s) below it were satisfied.

Research studies have found little support for the concept of a fixed hierarchy of motives (Miner, 1980). There are many possible options in setting action priorities; such priorities depend not upon built-in needs but on acquired values (wants). Many different value hierarchies can be observed among individuals. Contrary to Maslow, there is no one-to-one correspondence between needs and values.

Herzberg (1966) argued that certain features of the job such as responsibility and achievement led to job satisfaction when they were present but did not produce job dissatisfaction when absent. These "motivator" factors were alleged to satisfy man's psychological needs (e.g. growth). Other features of the job such as supervision, company policies and money were asserted to cause job dissatisfaction when inadequate but not to produce satisfaction even when they were more than adequate. These "hygiene" factors, according to Herzberg, served to fulfill man's physical or animal needs (i.e., to relieve tension). The only research design that was found to yield consistent support for this theory was the critical incident approach (that has flaws in itself, such as allowing defensiveness to influence the responses) combined with a seriously flawed system for classifying the critical incidents (that confused critical events with the agents held responsible for bringing about those events; Locke, 1976). Research using better methodologies has found that both motivators and hygienes cause both satisfaction and dissatisfaction. Furthermore, motivators and hygienes are not even independent. Company policies, for example, can affect degree of responsibility allowed and opportunities for achievement on the job.

As an alternative to these theories, Locke (in press a) has offered *Theory V* (V for values). This theory argues that, while needs are the starting point of motivational psychology, the individual's values—their consciously or subconsciously acquired conceptions of what is good, desirable or beneficial—are what most immediately govern their choices, actions and emotions. *Theory V is primarily an inductive theory*, a summary and integration of what has been found in job satisfaction research. For example, it has been found that:

(1) If people get what they value or want from their jobs, they experience job satisfaction; if they do not get what they value or want, they experience dissatisfaction with their jobs (Locke, 1976; Locke, in press b; Mowday, 1982).

(2) Job values that are more important to the individual have more influence on job attitudes than job values that are less important (Locke, 1976; Mobley & Locke, 1970).

(3) There is an association between job satisfaction and dissatisfaction and various approach and avoidance tendencies with respect to the job. (By tendency is meant a desire to act that may or may not lead to action depending upon other factors such as the job and life situation and the individual's other values). Dissatisfied employees, for example, are more likely to have thoughts of quitting, to search for alternative jobs, to intend to quit and to actually quit than satisfied employees (Mobley, 1982). Dissatisfied workers are also more likely to take drugs, join unions and go on strike (Locke, in press b)

(4) If one looks at the research conducted in non-educational institutions, there appears to be a substantial communality in what people value or want from their jobs (Gruneberg, 1979; Locke, 1976; Locke, in press b).

For example in the realm of work, people want work tasks that correspond to their personal interests. They like to feel that their work is important and that it gives them a chance to use their valued skills and abilities. This is facilitated by varied task assignments, autonomy and responsibility for making decisions. Many people enjoy the mental challenge that autonomy and responsibility provide because it gives them a chance to grow. Employees also value completing a whole piece of work as opposed to a meaningless fragment. They also want to feel a sense of achievement, success or accomplishment, or at least progress toward a goal. This is facilitated by feedback that shows evidence of such progress. Employees also want clarity as to what is expected of them and a harmony or integration among the expectations of the various people they work for and with. Both may be fostered by participation in decision making.

In the realm of pay, people want equity or fairness (e.g. fairness in pay rate relative to what others of similar skill inside and outside the organization are making.) They also want enough pay to meet their expenses, competitive benefits, and job security. Employees want fairness in promotions and a promotion system whose criteria are clear. Employees also value recognition and credit for their accomplishments. With respect to working conditions, employees want: convenience in terms of location and hours; resources that help them do their work effectively; and physical safety.

Individuals prefer co-workers and subordinates who share their values and who help them to do a good job. They value managers who are considerate of them as individuals, who show respect for them, who are honest, communicative and allow some participation in making decisions.

There are, of course, individual differences in what people want from their jobs. Those at higher job levels are typically more growth-

oriented than those at lower levels. The former usually want more and get more from their jobs than the latter. Those at lower levels, for example, are more likely to value mainly the pay and get less satisfaction from the work itself than the former.

Studies have also shown that, typically, job satisfaction increases linearly or curvilinearly with age and/or job tenure. People who are older or have been on the job longer may have attained more of what they want and those who have not may either have left or have lowered their aspirations to reflect what they are able to get.

It remains to be seen whether the same job aspects that are associated with job satisfaction among employees in non-educational institutions also are associated with satisfaction among college and university faculty. Even if the basic findings are the same in both cases, the pattern of relationships could be different due to the unique features of faculty jobs.

Let us now review some of the research on faculty satisfaction with their jobs.

Studies of university faculty suggest a decline in overall job satisfaction since the 1950's and 1960's. Willie and Stecklein (1982) and Robinson et al. (1969) report mean satisfaction scores of over 4 on a 5-point scale on faculty samples measured before 1970. In contrast, studies published or conducted after 1979 show mean overall levels of satisfaction below 4 and in some cases below 3 on 5-point scales (Gannon et al., 1980; McNeece, 1980; Willie & Stecklein, 1982).[1] Similarly, in a study based on a 1956 sample reported in Robinson, Athanasiou and Head (1969), a one-item measure showed that 93% of university professors would choose the same line of work again, whereas Willie and Stecklein (1982) found that the percentage of "yes" responses to a similar question declined for professors in 4-year colleges from 83% in 1956 to 72% in 1980. Finally, Hunter et al. (1980) found that only 30% of the faculty at one unversity reported high morale.

The job aspects most frequently perceived as responsible for low satisfaction, or as being less satisfactory than other job aspects, are pay, the university administration, resources and/or working conditions (Everett & Entrekin, 1980; Gannon et al., 1980; Renner & Jester, 1980; Robinson et al., 1969; Willie & Stecklein, 1982).

[1]To make these comparisons, studies which used reversed 5-point scales (1 = very satisfied, 5 = very dissatisfied) were re-reversed by subtracting each mean from 6; Gannon et al., 1980, used 7-point scales which were converted to 5-point scales by simple algebra. When multiple dimensions of the job were included, the overall satisfaction was determined by calculating the mean of all dimensions.

Some studies have found that male faculty, on the average, are more satisfied than female faculty (Gannon et al, 1980; McNeece, 1981; Perry, 1977), although no explanation for this finding has been offered, and the differences are sometimes very small (Smith & Plant, 1982).

A recurring theme of many studies of faculty has been the conflict between teaching and research. Most university faculty believe that teaching effectiveness is not adequately rewarded. They believe that too much emphasis is placed upon research and too little on teaching (Bess, 1977; Gannon et al, 1980; Goldstein & Anderson, 1977; Hunter et al, 1980; Renner & Jester, 1980).

Some writers, however, have questioned the utility of extrinsic rewards such as pay and promotion as motivators of effective teaching (Bess, 1977; McKeachie, 1982). However, studies indicate that rewards that convey that the individual is being paid for competence do increase motivation (Deci & Ryan, 1982).

Despite the limited number of studies and the potential conflict between teaching and research, most investigators believe that university professors are relatively satisfied with their work, especially with the autonomy and with relationships with students (McKeachie, 1982; Robinson et al., 1969; Willie & Stecklein, 1982).

Thus far, no studies, to the authors' knowledge have systematically measured: faculty satisfaction with all major job aspects, the importance of each aspect and the contribution of each aspect to overall satisfaction. Similarly, few studies have used multiple measures of overall job satisfaction.

Another neglected topic pertains to possible differences in job satisfaction between different academic fields. (Some studies have examined differences in value orientations across different academic fields [e.g., Smart & Elton, 1975; Stark & Morstain, 1978] but they have not looked at satisfaction differences). For example, it is known that professors in the arts and humanities usually get paid less than those in the physical sciences and the social sciences, who in turn usually get paid less than those in the applied areas such as business and management. To the degree that pay is important to faculty, such differences could affect overall satisfaction.

The present study aims to remedy some of these deficiencies. In addition, it will test the generalizability of previous findings regarding the drop in overall job satisfaction, the role of pay and administrators as sources of dissatisfaction, and sex differences in satisfaction.

Since this is an exploratory study, only a minimum of methodological and statistical detail is provided and only certain key statistical tests of the data have been made.

Survey

Method and Sample. We developed a 150 item questionnaire that asked faculty members to rate: the degree to which their jobs possessed the valued characteristics described earlier (based on Theory V); the importance of these characteristics; and their overall job satisfaction. We also obtained information regarding pay, tenure, academic speciality, age and rank.

Questionnaires were sent to all 1402 faculty at a major state university and all 207 faculty from a community college (lecturers, professors & chairpersons only in each case). The questionnaires were filled out anonymously; 498 were returned for a return rate of 31%. This return rate is not especially high but is within the range of 18% to 57% obtained in a number of previous studies of university faculty (Everett & Entrekin, 1980; Gannon et al, 1980; Hunter et al., 1980; McNeece, 1981; Nicholson & Miljus, 1972; Renner & Jester, 1980). The university sample (N = 427) included: 15 Chairs; 130 Full, 127 Associate, and 118 Assistant Professors; 23 lecturers; and 14 who did not reveal their rank. The community college sample (N = 71) included 2 Chairs; 14 Full, 27 Associate and 18 Assistant Professors; 4 lecturers; and 6 who did not reveal their rank. Response rates were similar across institutions and ranks.

Survey Results

Job and Criterion Factors. We began the analysis by factor analyzing those questionnaire items that contained descriptions of various job aspects using a principal components analysis with varimax rotation. The names and contents of the eight job aspect factors are shown in Table 1. With one exception the factors were almost exactly what we expected based on the results of previous research. A Work Achievement factor contained most of the work items. However, Work Role Clarity emerged as a separate factor. A Chairperson factor, which would be most similar to supervision in a non-academic context, emerged separately from an upper level Administration factor. Administration would be most equivalent to upper management in a non-academic organization. Pay, Promotion, Facilities and Coworkers also emerged as separate factors.

The criterion, or overall job satisfaction items, were factor analyzed separately. The main factor was called General Affect since it included items that rated overall satisfaction and a number of items relating to job mood taken from the scale developed by Skaggs and Lissitz (1981).

Table 1

Description of Job Aspect Factors

Work Achievement (.91)
work is significant
interesting work
have responsibility for decisions as to how to do work
learn new things
use skills & abilities
sense of accomplishment
sense of progress
variety
sense of completion
sense of failure(–)
boring(–)
no variety(–)

Work Role Clarity (.77)
get feedback on how well I am doing
it is clear what is expected of me
different people's expectations are consistent
chance to participate in decisions affecting work
not clear what I am supposed to do(–)

Chair (.94)
facilitates getting my work done
facilitates recruitment of good colleagues
fair in recommending raises
fair in recommending promotions
honest
keeps me informed
shows respect for me
unfair in allocating rewards(–)
hinders my work(–)
does not always tell full story(–)

Administration (.92)
helps get resources for department
fair in recommending promotions
honest
keeps me informed
cares about the faculty
allows faculty participation
takes resources from faculty(–)
does not respect faculty(–)
does not keep faculty informed(–)

Table 1 (cont.)

Description of Job Aspect Factors

Pay (.84)
fair compared to similar jobs at other universities
fair in relation to rest of department
enough for financial needs
benefits fair in relation to other universities
too little to meet expenses(–)
unfair(–)

Promotions (.86)
fair
criteria are clear
unfair(–)

Facilities (.77)
safe
make teaching more effective
help my research
support services are adequate
prevent me from doing my best work(–)

Co-workers (.77)
help each other to get work done
friendly, easy to get along with
work against me(–)

a. Alpha coefficient for scale.
b. All answers were on 5 point scales from "strongly agree" to "strongly disagree".
c. Item scoring was reversed for negatively worded items.

Intended Tenure emerged as a second factor. It included items mentioning thoughts about changing jobs and intentions to stay on the job. The factor was highly correlated ($r = .67$, $p < .001$) with the General Affect factor. The third criterion factor was named Non-Involvement and contained seven items from the Skaggs and Lissitz (1981) scale. The items all indicate a lack of involvement in the job on a day-to-day basis. The criterion factors are described in more detail in Table 2.

Table 2

Description of Criterion Factors

General Affect (.91)
how satisfied overall
mine is a good job
like to end up in this job again? (x2)
makes me feel in control of life
makes me feel depressed(–)
good thoughts about work when home
makes me have a positive outlook on life
good mood more often than bad mood during day
feel good when dealing with chair
feel good when talking with colleagues re: job
when talk to friends, talk of good things re: job
encourage others to get into same type of work

Intended Tenure (.85)
intend to be here 2 years from now
intend to be here 5 years from now
feel like checking employment ads(–)
think about other types of work(–)
think about changing jobs(–)

Non-Involvement (.78)
feel like calling in sick
don't feel like waking up in morning
feel energetic(–)
feel like leaving work immediately at end of day
Mondays are depressing
feel like being lazy at work
feel like taking a break from work to relax

a. Alpha coefficient for scale.
b. All answers except third item (which was "yes-no") were on 5 point scales ranging from "extremely satisfied" to "extremely dissatisfied"; "strongly agree" to "strongly disagree"; or "rarely (or never)" to "most of the time (or all the time)" as appropriate.
c. Item code (1 or 2) multiplied by 2 to equalize variance in relation to other items.
d. On this scale high scores show lack of involvement.

Validity of Factors. The convergent and discriminant validities of seven of the eight predictor factors are shown in Table 3.. The questionnaire included a one-item satisfaction scale for each of the seven specific job aspects covered in the questionnaire: Work, Chair, Administration, Pay, Promotions, Facilities and Co-workers. The data in Table 3 show that each job factor is highly correlated with its corresponding one-item satisfaction scale and is far more highly correlated with its scale than with any other scale. The convergent validities are shown in italics.

Since it was not anticipated that Work Role Clarity would emerge as a separate factor, no one-item scale was included for it. But note that it appears to be correlated about equally with all seven of the one-item scales.

Table 3

Convergent and Discriminant Validation Matrix

	Satisfaction Scale						
Job Factor (# items)	Work	Chair	Admin-istration	Pay	Promo-tions	Facil-ities	Co-workers
Work Achievement (12)	*.74*	.27	.15	.17	.31	.21	.19
Work Role Clarity (5)	.42	.41	.44	.38	.50	.42	.37
Chair (10)	.30	*.88*	.23	.31	.35	.32	.46
Administration (9)	.18	.26	*.85*	.49	.45	.40	.29
Pay (6)	.28	.36	.44	*.83*	.38	.38	.30
Promotions(3)	.27	.26	.39	.35	*.87*	.23	.21
Facilities (5)	.21	.31	.36	.34	.29	*.75*	.24
Co-workers (3)	.26	.46	.21	.25	.29	.26	*.81*

Mean Satisfaction. Table 4 shows the mean degree of satisfaction with each job aspect, measured in two ways: (1) by calculating the means of the one-item satisfaction scales and (2) by calculating the mean item score for all the items in each job factor. Both methods yield very similar results (the *rho* between the two sets of means is .96, $p < .01$). The results for the two (university and community college) subsamples (not shown) were also similar; the rho between the means for the one-item satisfaction scales for the two samples was .86, $p < .05$.

The faculty, as a group, are most satisfied with their Work Achievement, Co-workers and their Chairpersons, and least satisfied with their Pay, Promotions and higher level Administrators.

Table 4

Mean Satisfaction Scores by Job Aspect

Job Aspect	Mean on one-item Satisfaction Scale	Item Mean for Job Factor
Work	3.95	4.20[a]
Co-workers	3.67	3.69
Chair	3.59	3.70
Facilities	3.17	2.96
Pay	2.62	2.89
Promotions	2.61	2.76
Administration	2.52	2.71
Overall mean	3.16	3.27

[a] Work achievement scale

The overall mean of the seven one-item satisfaction scales is 3.2 and of the job factor items 3.3 (see Table 4), indicating a moderate, slightly above neutral overall level of satisfaction. The means of the two overall job satisfaction items, which form part of the General Affect scale (the first two items listed in Table 2), are slightly higher: 3.5 and 3.7, respectively.

Another item from the General Affect criterion factor is of special interest, because the same or similar item has been used before both with university faculty and with other occupational samples. The item is, "If you had your life to live over, would you like to end up in the same job as you have now?" Only 41% of the university sample and 26% of the community college sample answered "yes" to this item. These figures are lower than the figure (46%) for unskilled solid waste management workers (i.e., garbage collectors) who were interviewed in 1972 (Locke & Whiting, 1974). The comparison could be a bit misleading here, because in the garbage collector study the subjects were asked whether they would like to end up in the same "line of work" again rather than the same job. However, these results indicate a high level of dissatisfaction among the faculty at these two institutions. It is quite possible, of course, that there was a sampling bias in that those who responded were more dissatisfied than those who did not; however, there is no way to test this possibility.

It is worth asking why the results using direct questions (i.e., the job

factor item and the various one-item satisfaction scales) suggested a moderate degree of overall satisfaction, whereas the more indirect yes/no item revealed a very high degree of dissatisfaction. The explanation may lie in the context suggested by the questions. The more direct items may have been answered based on "what seems possible and reasonable in the present job context" (i.e., they may indicate adjustment), whereas the yes/no item may have encouraged the respondents to consider a wider context and a longer time perspective, (i.e., is this job really what I want?). Thus the yes/no item could be expected to reveal a higher level of dissatisfaction than the more direct questions.

Relation of Personal Characteristics and Job Factors to Criterion Factors.

The relationship between the personal characteristics and the criterion factors is shown in Table 5. In this table the data for the two subsamples are separated since most significant relationships were only for the university sample. Observe that the correlations, even when significant, were generally low. Rank, age squared (curvilinear relationship), and pay were related to all three criterion factors with pay showing the strongest relationship in each case. Sex was related to the Affect and Intended Tenure factors with males being more satisfied than females. Tenure and Tenure squared were related to the Intended Tenure factor. For the Affect factor, rank, age squared and pay accounted for unique variance when all personal variables were entered simultaneously in the regression equation. Rank had a negative beta weight indicating it was acting as a suppressor variable. For the Intended Tenure and Non-Involvement equations, only pay was significant.

Table 6 shows the results for the job factors. In this table the data from the two samples are combined since there were no significant differences between the corresponding r's for the university and community college samples. Note first that all the job factors are significantly correlated with all three criterion factors. Second, Work Role Clarity shows the highest correlation with both the Affect and Intended Tenure Factors. Work Achievement is most highly correlated with Non-Involvement.

When all the factors are entered simultaneously in the regression equation for the Affect factor, Work Achievement, Chair, Administration, Pay, Facilities and Co-Workers explained unique variance. Work Role Clarity drops out, despite its high univariate correlation, because

Table 5

Relation of Personal Characteristics to Criterion Factors: Correlations & Regression Analysis[a]

	Affect		Intended Tenure		Non-Involvement[b]	
	Univ.[c]	CC[d]	Univ.	CC	Univ.	CC
Rank	.11 (F = 5.08)[e]	–	.31	–	–.13	–
Tenured/Not Tenured	–	–	–	–	–	–
Age	.13	–	.35	.29	–.13	–.26
Age²	.15 (F = 4.35)	–	.34	.27	–.13	–
Sex (female = 2, male = 1)	–.12	–	–.16	–	–	–
Tenure (yrs. at institution)	–	–	.28	–	–	–
Tenure²	–	–	.29	–	–	–
Pay	.23 (F = 16.64)	–	.40 (F = 13.70)		–.11 (F = 6.24)	
R^2	.09[f]	–	.19	–	.04	–
p	.01		.001		.05	

[a]Range of n's from 58 to 426 for correlations; all r's shown are significant at $p < .05$ or better

[b]A high score indicates low involvement

[c]University sample

[d]Community college sample

[e]F value in simultaneous regression equation for personal characteristics; d.f.'s = 1,329 to 1,345; all F's shown are at $p < .05$ or better

[f]R's d.f.'s = 8,329 to 8,345

it is highly correlated with the other factors. If Work Role Clarity is entered hierarchically, it accounts for significant variance if entered at any point except last. If only the university sample is used, the results are the same except that Work Role Clarity also accounts for unique variance.

For the Intended Tenure factor, Work Achievement, Work Role Clarity, Pay and Promotions explained unique variance. For the university sample alone, Promotions dropped out of the equation.

For the Non-Involvement factor, only Work Achievement accounted for unique variance. The result was the same for the university sample alone.

When the personal characteristics were entered simultaneously with the job factors, no personal characteristics accounted for any unique

variance. Thus, the effect of pay was manifested through its effect on the job factor scales.

When the correlations between the job factors and the criterion factors were calculated separately by rank, the results were virtually identical for each rank. There were no more significant differences between corresponding pairs of correlations than would be expected by chance.

Table 6

Relation of Job Factors to Criterion Factors: Correlations & Regression Analysis[a]

	Affect	Intended Tenure	Non-Involvement[b]
Work Achievement	.58 (F = 104.30)[c]	.43 (F = 27.64)	−.48 (F = 80.57)
Work Role Clarity	.60	.51 (F = 9.03)	−.30
Chair	.56 (F = 17.22)	.39	−.22
Administration	.48 (F = 5.29)	.38	−.20
Pay	.52 (F = 19.79)	.45 (F = 19.20)	−.21
Promotions	.45	.44 (F = 12.25)	−.25
Facilities	.44 (F = 12.76)	.31	−.20
Co-Workers	.50 (F = 20.65)	.29	−.22
R^2	.65[d]	.40	.26
P	.001	.001	.001

[a]Range of n's from 391 to 479 for correlations; all r's shown are significant at $p < .05$ or better

[b]A high score indicates low involvement

[c]F value in simultaneous regression equation; d.f., for F's = 1,382 to 1,405; all F's shown are at $p < .05$ or better

[d]R's d.f. = 8,375 to 8,392

Differences among Academic Divisions. Comparisons among the various academic divisions were made only for the state university since the community college was organized differently (and the college sample was too small to make a separate sub-analysis).

There were significant differences among the divisions on every job factor except Work Achievement and Administration. The former result may be due to the fact that the work is, in essence, self-chosen

and self-paced equally for all faculty. With respect to the latter result, all academic divisions except for the provost level actually report to the same upper level administrators.

On the remaining factors, which did show significant differences, faculty in the Math, Physical Science and Engineering division were consistently the most satisfied followed closely by faculty in the Agricultural and Life Sciences division. Faculty in the Human and Community Resources division were generally the least satisfied followed by those in the Arts and Humanities. Social Science faculty were consistently in the middle. Of the criterion factors, only Intended Tenure showed a significant difference among divisions with the Math, Science & Engineering division showing the highest mean.

With respect to demographic factors, there were significant differences on three: age, sex, and pay. The age differences were largely opposite to the job factor differences. However, the Math, Science and Engineering, and Agriculture and Life Sciences divisions had the highest percentage of males and the highest pay levels among the divisions.

Relation of Job Aspect Importance to Satisfaction. As noted earlier, previous research and theory suggest that aspects of the job that are considered to be more important should have a greater impact on job satisfaction than those which are less important.

The most precise way to test this prediction is on a within-item rather than a between-item basis, since there are usually individual differences in rated importance within a given item. (Such differences would become error variance when testing between items). However, most of the job aspect descriptions in this sample were chosen deliberately because they were thought to be important. The mean importance rating of the items on every job aspect factor was above 4.0. (Importance was measured by a separate item that followed the job aspect item, e.g., Job aspect item: "My work is interesting." Importance item: "How important is this?" Only positively worded items were rated as to importance.) Items with very high means would not show enough variance to test the prediction adequately. Thus, we chose eight items from the questionnaire whose importance mean was low relative to other items—close to 4.0 or less on a 5-point scales—and whose variance was relatively high—close to 1.0 or greater. For each of these items, respondents were divided into those who rated the item "5" in importance, those who rated it "4" and those who rated it "3, 2, or 1." Within each of these groups, the correlation between the responses to the corresponding job aspect item and the General Affect factor was calculated. The items involved and the resulting correlations are shown in Table 7.

Table 7

Correlation Between Item and General Affect as a Function of Item Importance

Item	Mean Importance (Variance)	Correlation of Item Response with Overall Affect for Those Who Rated Item Importance as: 5	4	3, 2 or 1
Different peoples expectations consistent	3.7 (1.1)	.59 (115)	.32 (180)	.18 (187)
Fringe benefits are fair	4.1 (.8)	.43 (173)	.14 (197)	.10 (112)
Faculty help each other	4.0 (.8)	.44 (169)	.43 (209)	.22 (116)
Administrators keep me informed	4.3 (.7)	.39 (222)	.31 (163)	.04 (84)
Nice office view	3.1 (1.4)	.30 (68)	.10 (122)	.07 (298)
Wastebasket emptied regularly	3.2 (1.4)	.48 (77)	.14 (112)	.26 (297)
Water fountain near office	2.6 (1.5)	.25 (44)	.18 (67)	.11 (376)
Office has curtains	2.2 (1.5)	.22 (27)	.25 (46)	-.01 (408)
Mean r[b]		.40	.24	.12

[a]N for that correlation
[b]Calculated using r to z transformations.

It is clear that the correlations between the item responses and General Affect are higher for faculty who rated an item more important than for faculty who rated an item as less important. The mean correlation for those who rated the items "5" in importance is .40; the mean for those who rated the items as "4" in importance was .24, and for those who rated it as 3, 2, or 1, the mean correlation was .12.

A cruder way, as noted above, to make the same test is to do it across rather than within items. (This method is cruder because it ignores individual differences in rated importance within the same item.) The job aspect items were divided into categories based on the mean importance of the item. The importance categories were: 4.5 or more; 4 to 4.4; and 3.9 or less. A finer breakdown was not possible since 88% of the individual items were rated 4 or more in importance. Four of the five items with importance ratings of 3.9 or less were ones that were included in the questionnaire, because they were thought *not* to be very important (office view, wastebasket emptied regularly, water fountain near office, and curtains in office. These four items were also included in the analyses shown in Table 7). The mean correlation with the General Affect factor for the items rated 4.5 or more in

importance was .35. The corresponding figure for those rated 4 to 4.4 in importance was .30. And for those rated 3.9 or less in importance, the correlation was .19.

Discussion

The major findings of this study are quite consistent with the major empirical tenets of Theory V:

(1) Faculty members are satisfied to the degree that they get what they want (what is important to them) from the job. This thesis is also consonant with the predictions of expectancy theory (Mowday, 1982);
(2) The more important the job aspect, the more effect that aspect has on job satisfaction;
(3) Job satisfaction, or overall affect, is associated with the intention to stay on the job (recall that these two criterion factors were correlated .67, $p < .001$);
(4) Faculty members generally want the same things from their jobs as employees in other types of organizations, i.e., a sense of achievement from their work, work role clarity, fair pay and promotions, good facilities, and administrators, chairpersons, and co-workers who facilitate the achievement of work related values and who are personally helpful, honest and respectful. Every one of these job factors was significantly associated with the three criterion factors.

The fact that this study used criterion factors with multiple items, rather than the one-item scales (with questionable reliabilities) typical of many studies, may have facilitated the obtaining of positive results.

The finding that work achievement is important to faculty comes as no surprise since it has been found with respect to virtually all jobs, especially in the professions, including faculty jobs (e.g., Eckert, Stecklein & Sagen, 1959; Nicholson & Miljus, 1972). Work achievement was the only job factor to account for unique variance in all three criterion factors and accounted for more unique variance than any other variable in all three cases.

The significant association of both actual pay level and the pay factor with the criterion factors supports the results of a number of previous studies that found rewards to be important correlates of faculty satisfaction (Eckert, Stecklein & Sagen, 1959; Feild & Giles, 1977; Neumann, 1978; Nicholson & Miljus, 1972).

A surprising finding of this study was that Work Role Clarity showed the highest first order correlation of any variable with the General Affect and Intended tenure factors. (In the community college sample Work Role Clarity did not have the highest first order r's but was significantly correlated with both factors, p's < .01.) The factor contained 5 items (see Table 1): feedback, clarity of expectations, consistency of different people's expectations, chance to participate, and clarity (worded negatively). As noted earlier role clarity has been found to correlate with job satisfaction in previous studies (see Schuler, 1980) but not as strongly. The strong relationship in this case may be due to the particular nature of the university faculty member's job. The work is relatively unstructured in that the faculty member chooses what subject he or she wants to research and is left entirely on his or her own to do it. Similarly, in the classroom, the professor has a virtual free rein to teach what and how he or she wants, so long as the general topic of the course is adhered to. At the same time, the professor is evaluated by both the department chair and by upper level administrators for both pay and promotions.

While officially there are three evaluation criteria at this university: research, teaching and university service, in practice there is mainly one: research. However, this fact is not always made clear, especially to junior faculty. In addition, it is not always clear how to know whether one has done good and/or enough research. Evaluations of one's research by one's colleagues may conflict with those of the department chair; either or both of these evaluations may conflict with those of upper level administrators. And any of these may conflict with one's self-evaluation. Thus a university setting could be described as one of very high autonomy and responsibility combined with performance appraisal criteria that are only partially specified. Thus it is not surprising that perceived Role Clarity would be important. Other studies (e.g., Light, 1974; Rich & Jolicoeur, 1978) have pointed to inherent conflicts and ambiguities in the academic role.

In the community college, teaching effectiveness is supposed to be the primary criterion for promotion. However, the ambiguity of the concept of "teaching effectiveness" (Bess, 1982a) has led to increased emphasis on other, more easily quantifiable criteria. Such factors as service to the college and professional development seem to have become more important in decisions involving rewards than teaching. This change, however, has not eliminated the ambiguity of the evaluation system at the college.

It is striking that Work Role Clarity was more highly correlated with the remaining job factors than was the case for any other job factor

measured in this study. The median correlation between Work Role Clarity and the other seven job factors was .49, whereas the median correlation among these seven factors was .29 for the university sample. (The pattern was similar for the community college sample and is also evident in Table 3.) It seems that Work Role Clarity is a dimension that is associated with all aspects of the job: the reward system (pay and promotions), the actions and expectations of others (administrators, chairs and co-workers), and even work achievement and facilities.

It is highly likely that the Role Clarity factor is also tapping, in part, the issue of conflict between teaching and research that has emerged in a number of previous studies (e.g., Light, 1974). For example, most of the faculty member's time is taken up with teaching (Willie & Stecklein, 1982), but pay and promotion (at major universities) are based on research. Thus there is a built-in discrepancy between the official role definition for such faculty and the actual reward system.

There are, of course, substantial individual differences in what different faculty members prefer in the way of professional activities (Bess, 1982b). Some would prefer to do just research, while others would prefer to do just teaching and still others would like to do some of each. One possible solution to this dilemma is to establish *different categories of professors* within a university. A certain number of tenure track positions, called Teaching Professorships, could be reserved for those who want to be evaluated only on their teaching. These individuals could be given heavier loads than others (e.g., 9 to 12 hours per semester) and be assigned to teach only undergraduate courses. Another set of tenure track positions, called Research Professorships, could be reserved for professors who want to do mainly research. These professors would have a light teaching load (e.g., 3 hours per semester) and would teach only graduate courses. These professors would be evaluated almost solely on their research accomplishments. The remaining tenure track positions would be called Teaching-Research Professorships and would involve teaching a normal load (e.g., 6 hours), with the professors being judged 50% on teaching and 50% on research. They would teach both graduate and undergraduate courses as needed.

It is unlikely that a policy such as we have described would in any way reduce the research capability of the university as a whole, since studies indicate that the great majority of research is done by a relatively small minority of individuals. By allowing the most productive individuals even more time to do what they want, there would probably be a net gain in research output, especially if there were

(eventually) several Research Professorships in each department. This proposal would almost certainly lead to a net gain in teaching effectiveness.

Since this proposal is somewhat of a radical departure from the typical university set-up, it would have to be implemented gradually in order to see how well it worked. For example, as a starting point, each department could reserve one track just for a Teaching Professor and one track just for a Research Professor. Depending on the results the program could be revised and expanded (cf. Oldham & Kulik in this volume).

We are aware that there are many potential administrative problems involved in this proposal, e.g., at what point could a faculty member lay claim to a particular type of professorship? Could he or she change his or her mind after making an initial choice? Would it be easier to get promoted under one track than another? How do you equalize raises among the different categories, e.g., is a 4.5 student rating on a 5-point scale equal to 3, 5 or 7 publications? Would teaching professors inflate student grades in an attempt to get higher ratings? There can be no meaningful answers to these questions until the suggestions are tried on a small scale and the consequences observed and measured.

Another possible way to increase role clarity would be for universities or departments to develop formalized mentor systems. A newly hired assistant professor could be assigned to a full professor-mentor, who would advise the younger professor how the "system" worked, e.g., how to get tenure. Such advice would be in addition to any advice given to the assistant professors in regular departmental reviews. Again this proposal has potential pitfalls e.g., How will the mentors be chosen? Supposing they give poor advice? Will it be seen as unjustified pressure? However, this idea might be worth trying on an experimental basis.

The finding that university faculty are, at best, only moderately satisfied replicates other recent studies (Gannon et al., 1980; McNeece, 1981; Willie & Stecklein, 1982), as does the finding that faculty are most dissatisfied with Pay and university Administration. It will be recalled than on the one-item satisfaction scale, satisfaction with Administration was rated lower than any other job area. It should be added that Pay and Promotions, rewards which are heavily influenced by upper level administrators, were ranked second and third lowest in satisfaction on the one item scales (see Table 4).

The finding for the university sample that males were more satisfied with their jobs than females also replicates earlier research findings (McNeece, 1981; Perry, 1977; Smith & Plant, 1982) and seems worthy of further exploration. Males were more satisfied than females on both

the General Affect and the Intended Tenure factors. This may be explained by the facts that in this sample females, on the average were younger, had less tenure, were at lower ranks and were paid less than males.

As noted earlier, sex differences were associated with differences in satisfaction among academic divisions, with the more satisfied divisions having a greater percentage of males. However, these same divisions also had the highest pay. It will be recalled that in the regression analyses, pay was the demographic factor most strongly related to satisfaction, thus it may be the most important determinant of the divisional differences as well as of the sex differences.

The finding that rank (job level) and age (or age squared) were related to job satisfaction is consistent with a number of earlier studies conducted in a variety of organizational settings (Gruneberg, 1979). The relationships in the present case were not particularly strong, however. The association between Intended Tenure and such factors as rank, age, tenure and pay is also consistent with previous research. Individuals who have been well rewarded by the organization have probably stayed there for that reason. In addition, people who are older and more highly paid would probably find it difficult to find another job as good as the present one and may also be reluctant to make major changes in their lives.[2]

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[2]Caution should be used in interpreting the results of this study, not only because of possible sampling problems, but because the data consist solely of concurrent correlations that do not provide proof of causality.

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ORGANIZATIONAL PROCESSES AND LATENT LEARNING

LEADERS AND LEADERSHIP IN ACADEME

Victor H. Vroom

For the last two or three decades I have been principally employed in higher education—in academe. Much of that time has been spent thinking about, writing about and doing research on the process of leadership. Until the topic of the essay was proposed, I had never explicitly addressed in any formal way the relevance of the topic in which I was interested for the institution in which I worked, i.e., the relevance or lack of relevance of contemporary models of leadership to their particular manifestation in higher education.

In my own defense, let me say that I am not alone in failing to explore this relationship. There is a paucity of research on leadership in higher education. A careful examination of the 5000 citations in Bass' revision of Stogdill's Handbook of Leadership (Bass, 1981) reveals that most of the research has been conducted in business organizations with secondary emphasis on the military and on government agencies. With a few notable exceptions, such as Cohen and March's (1974) excellent exploration of the role of the American University president, remarkably little research has been conducted on the institutions of higher education in which most of the researchers are located.

There are undoubtedly a number of possible explanations for this omission. Business organizations, government agencies and military squads or platoons are certainly more numerous, and, strangely much more receptive to the idea of research conducted upon them than are universities. Furthermore it is only fairly recently that the field has come to the realization that the kind of institution or setting in which leadership was studied might make a difference to our understanding of what the process was and how it operated.

Victor H. Vroom is John G. Searle Professor of Organization and Management at the Yale School of Organization and Management.

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The tendency to ignore situational factors was characteristic of the two early traditions in leadership research. The first tradition had its roots in the psychology of individual differences and in the personality theory of that time. The prevailing theory held that individual differences could be understood in terms of traits—consistencies in behavior exhibited over situations. If people could be usefully described on such dimensions as introversion-extroversion, honesty-dishonesty, perhaps they could also be located on a dimension of leadership-followership. People were assumed to possess different amounts of leadership that presumably accounted for the roles they played in informal and formal organizations.

The trait conception set researchers on a course of measuring the personal qualities of leaders and followers and of more and less effective leaders. The setting was unimportant. If leadership is a generalized trait one can learn as much about it as by studying industrial foremen or insurance executives or even boy scouts.

The results of research on personality traits have been reviewed in detail elsewhere (Stodgill, 1948; Vroom, 1975) and are inconclusive. Correlates of leadership in one situation are frequently found to be uncorrelated in other situations leading most researchers to conclude that the significance of individual differences must be evaluated in relation to situational requirements.

If the study of leadership as a personality trait foundered because of its oversimplified premise so too did the search for effective leader behaviors or styles that constitutes the second historic tradition underlying the research carried out at the University of Michigan and at Ohio State beginning in the 1950's. Is effective leadership employee-centered or production-centered? What are the consequences of consideration and initiating structure for leader effectiveness? Are participative managers more effective than autocratic managers? Such questions ignore possible interactions between patterns of leader behavior and situational requirements. Several social scientists including the present writer (Sales, 1966, Korman 1966, Vroom 1964) have reviewed the evidence from attempts to answer such questions and commented on the variability in results.

Most scholars interested in leadership now agree that neither the personality trait approach nor the search for effective leadership behaviors was adequate to deal with the complexities of the underlying processes. Virtually all theories of leadership introduced in the last decade or two have been contingency theories which, by their very nature, view the consequences of leader actions or attributes as contingent on situational and organizationa' conditions.

We begin this essay by examining some of the distinguishing charac-

teristics of universities as organizations particularly those attributes that should or do affect the kind of leadership. From this foundation we describe an empirical investigation recently completed which contrasts the leadership styles found in universities with those in business, government and the military. Then we turn to an examination of some of the more prominent contingency theories of leadership. For each theory we will attempt to draw out its implications for the practice of leadership in academe with particular focus on the role of the department chair. Finally, we will summarize the major differences and similarities among these theories and indulge in a few speculations about other leadership roles in academe.

The Academic Organization

Cohen and March (1974) describe a university as an organized anarchy. Its goals are either vague or in dispute and are of little use in guiding the choices that must be made. Official statements of objectives such as "to provide each student with the opportunity to develop intellectually, morally, culturally and vocationally" are so general and vacuous as to provide no guidance in decision-making (Corson 1975). Such goal ambiguity is inherent in the academic organization and presents unique challenges not only for the researcher seeking to understand what goes on but also for those who seek to lead them.

Universities are also populated largely by professionals. Furthermore there is an unusually high degree of task specialization. It is frequently difficult for faculty members to fully understand the research of colleagues in their own department not to speak of those in other departments.

A substantial proportion of the faculty in universities possess tenure—a factor that makes it possible for them to attempt "upward" influence with relative impunity while requiring persuasive rather than coercive influence in a "downward" direction. Furthermore universities typically provide unprecedented amounts of discretion to individual faculty members who choose what to research, how to teach and, within remarkably broad limits, the hours at which they will work. The control and autonomy vested in individuals is mirrored by similar control vested in departments, many of which elect their own leaders, and control new faculty appointments as well as the awarding of degrees.

Clearly, the university is different in many aspects from most supermarkets, insurance companies or government agencies. The differ-

ences are, however, matters of degree. Many of these characteristics have been found and studied in such diverse locations as Japanese companies, Swedish automobile plants, law firms, hospitals and research and development centers. We turn now to examine possible manifestations of these differences in the leadership styles found in academe.

A Research Project

Robert and Vroom (1983) completed a research project designed to explore differences among four types of institutions—the military, government, business and higher education—in the kinds of leadership styles that they elicit or produce. The method used to study leadership style was a modified version of the standardized case method developed by Vroom and Yetton (1973) to study autocratic and participative modes of decision-making. Four cases were used, each describing a leader in a well-defined setting faced with a specific problem.

Following is one of the four cases:

Setting: University
Your Position: Department Chairman

You are the Chairman of the Chemistry Department in a large university and have just received and accepted a request from the State Department to be part of a delegation to the Peoples Republic of China. Since you will be gone for a month, one of the professors in the department must be selected to act for you in your absence. While you could be contacted in the event of an emergency, whoever acts for you may need to make a number of important decisions and continue the delicate process of curriculum revision that you have been involved in for over a year.

The principal responsibilities of your replacement are to coordinate the work of the other faculty. This person will need to rely on persuasion rather than formal authority. If the group lacked confidence in the person chosen, the progress that you have made in developing the curriculum might be jeopardized.

You have three people in mind who could handle the assignment. The one thing about which you are uncertain is the nature of their workloads for the next month. The nature of their work does not permit its redistribution among members of the group and the professor chosen cannot be one who has a heavy volume of work to be carried out during this period.

The professor who assumes your position during your absence

would acquire some status within the department and visibility within the university. For this reason, each person would want the job. On the other hand, each of them realizes that it is critical for the job to be done well, and they all want to prove to you that the operation can continue to be effective during your absence.

On the two previous occasions when you have had to be absent for significant periods, the people you selected were accepted by everybody and performed the job conscientiously and well. It appears that once you have decided who should do the job, your judgment is accepted without question.

After reading each case, a respondent, typically a leader or manager, is asked to indicate which of the five methods shown in Table 1 should be employed in dealing with that problem. The methods vary in the amount of participation provided subordinates.

Differences in leadership style were studied in two ways—by comparing people socialized in the traditions of each of these four institutions and by comparing the kinds of choices that leaders made when the problem was represented as taking place in each of the four institutions. The latter step required preparing four versions of each case corresponding to the four institutional contexts. For example, the problem shown above was rewritten to apply to city government, the U.S. Army and the corporate headquarters of a large company.

From the 16 cases (4 x 4) four problem sets were constructed according to a balanced Latin square. Problem sets were randomly assigned to 192 subjects, 48 from each of the four institutions. The government leaders were elected and appointed officials from city, state and federal government; the business leaders were second and third level managers employed by a large conglomerate or retail firm; the military officers were captains and majors on active duty in the U.S. Army on assignment in the Eastern United States and the university professors, some but not all of whom were serving or had served in administrative positions, were employed by three universities in southeastern New England.

Despite the fact that the samples are far from random, the results are consistent, significant, and interpretable. Of the four groups of subjects, those from the military were most autocratic followed by business, universities and government in that order.

Similar significant differences are obtained by comparing the responses of all four groups to the same cases located in different institutional contexts. Once again, the military emerged as the institution that elicited the most autocratic responses with business somewhere in the middle. Universities and government emerged as the two

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Table 1

Types of Management Decision Methods

Symbol	Definition
AI	— You solve the problem or make the decision yourself using the information available to you at the present time.
AII	— You obtain any necessary information from subordinates, then decide on a solution to the problem yourself. You may or may not tell subordinates the purpose of your questions or give information about the problem or decision you are working on. The input provided by them is clearly in response to your request for specific information. They do not play a role in the definition of the problem or in generating or evaluating alternative solutions.
CI	— You share the problem with the relevant subordinates individually, getting their ideas and suggestions without bringing them together as a group. Then *you* make the decision. This decision may or may not reflect your subordinate's influence.
CII	— You share the problem with your subordinates in a group meeting. In this meeting you obtain their ideas and suggestions. Then *you* make the decision that may or may not reflect your subordinates' influence.
GII	— You share the problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach agreement (consensus) on a solution. Your role is much like that of chairperson, coordinating the discussion, keeping it focused on the problem and making sure that the critical issues are discussed. You can provide the group with information or ideas that you have but you do not try to "press" them to adopt "your" solution and are willing to accept and implement any solution which has the support of the entire group.

"participative settings." Apparently, there are quite widely held views of the relative appropriateness of autocratic and participative leadership styles in these four institutions.

Let us assume for a moment that these differences revealed by the two methods do exist among the four institutions, e.g. the military is in fact a much more autocratic institution in terms of its decision making processes than is the university. (One might also argue that we have understated the real differences since our methods have held constant the cases or problems that decision makers must address in these four settings.)

Let us take the further and more controversial step of arguing that these differences not only "do" but also "should" exist. Among the properties that we have previously identified as distinguishing universities from other institutions are several that may be taken to require more participative leadership. For example, the advanced levels of education found among faculty constitute a resource that intelligent leadership should tap to generate high quality solutions to complex problems of organization, research and teaching. Furthermore, these high levels of education may be accompanied by expectations on the part of faculty of having the opportunity to participate in decisions having effects on them.

To be sure, the evidence for this normative conjecture is incomplete. A potentially fruitful line of inquiry would be the study of cross-institution mobility among leaders. What happens to leaders schooled in military or business organizations who assume leadership positions in universities? Do they experience the need to alter their leadership style? What happens if they fail to do so?

Likert (1977) has summarized the evidence from a number of unpublished doctoral dissertations on leadership in academic settings and has concluded that System 4 (his term for highly participative leadership) tends to be accompanied by greater faculty satisfaction, more commitment to university objectives, greater innovativeness and less felt need for collective bargaining. One can conclude that these are properties of universities that favor participative leadership. Whether these properties are more present in academic settings that in most other kinds of organizations is not presently known.

Contingency Theories and the Practice of Leadership in Academe

In the previous section, we went about the task of comparing empirically academic leadership with leadership in other settings. The problem can also be approached theoretically. To be more specific we

can ask what each of the more prominent contingency theories of leadership have to say about the practice of leadership in higher education. This exercise would not, in any way, constitute a test of the validity of the contingency theories but rather would serve as an examination of the kinds of issues each addresses and the ease with which they address matters of concern in academic administration in a manner that appears to make intuitive sense. At the same time, and somewhat incidentally, we can seek to ascertain whether any or all of the theories would prescribe the autocratic-participative differences previously observed.

We will examine four contingency theories (1) Fiedler's LPC theory, (Fiedler, 1967), (2) Hersey and Blanchard's Life Cycle Theory (Hersey & Blanchard, 1977), (3) House's Path-Goal Theory (House, 1971), (4) Vroom and Yetton's Decision-Process Theory (1973). The theories differ in many important ways but share an assumption that leader effectiveness is a function of an appropriate matching of leader behaviors and/or attributes and explicitly defined situational variables.

Fiedler's LPC Theory. Of all contingency models of leadership, Fiedler's is undoubtedly the most thoroughly researched. It is the only contingency model that attempts to reconcile the personal trait approach with ideas of different situational requirements. The personality variable used by Fiedler is called Least Preferred Worker (LPC) and is measured by asking the leaders to describe the person with whom they "could work least well". A low LPC leader, who assigns largely negative attributes to the least preferred coworker, is seen as primarily task-motivated whereas a high LPC leader is seen as relationship-motivated.

Fiedler and his colleagues have examined the relationship between the leader's LPC score and objective criteria of group or organizational performance. Many different types of groups have been studied ranging from basketball teams to army tank crews to teams in open-hearth steel shops. It is interesting to note that none of the situations studied approaches universities in terms of complexity and none would be appropriately characterized as "organized anarchies."

The variation in results was initially very hard to understand but Fiedler was able to explain much of this variance by classifying the situations on three dimensions: (1) the degree of structure involved in the group task; (2) the amount of power given to the leader by virtue of his position and (3) the quality of interpersonal relationships between the leader and other members. These three attributes are thought to have one thing in common. Each pertains to a different aspect of the "favorableness of the situation." Thus a highly favorable situation is characterized by high task structure, high position power and positive

leader-member relations. High LPC (relationship motivated) leaders tend to be successful in moderately favorable situations whereas Low LPC (task motivated leaders) tend to be successful in either unfavorable or highly favorable situations.

What type of leaders would the theory hold to be successful in academe? The question is perhaps too broad to be answered. However an inspection of the items used to measure the three situational attributes (Fiedler, Chemers and Mahar, 1976) gives us some grounds for informed conjecture. If we take the relationship between department chairs and faculty to be our focus, the tasks may be said to be relatively unstructured. As we have previously noted, the goals of academic work tend to be ambiguous—not clearly stated or known. There is seldom only one way to accomplish academic tasks or one correct answer or solution to problems that arise and it tends to be difficult rather than easy for leaders to check up on subordinates to determine whether their jobs have been performed effectively. Similarly, we will argue that department chairs tend to have relatively low position power relative to most leaders in the military or in business. Their ability to hire and fire, reward or reprimand, or assign tasks to faculty and instruct them in task completion is very limited relative to other settings.

The only situation component that might be deemed favorable to many academic leaders is the quality of leader-member relations. Typical questions used by Fiedler to measure this attribute pertain to how well subordinates get along with each other, and the degree the subordinates give the leader help and support in getting the job done. Answers to such questions appear highly variable and are probably a consequence of leadership style. One might speculate that leader-member relations would be higher where the chair was elected than where the incumbent was appointed.

Summing over the three components of situation favorability in the manner suggested by Fiedler suggests that most situations of academic leadership are relatively unfavorable hence requiring low LPC or task-motivated leaders. It is only under circumstances in which the quality of leader-member relations was very high, that situation favorability would approach the moderate range where high LPC leadership would be indicated.

If, in fact, our analysis is correct and most situations in academe are unfavorable (in Fiedler's terms) they would call for a leader with a low LPC score. Such a person is viewed by Fiedler as most concerned with the task and less dependent on how others feel about him/her. In unfavorable situations, low LPC leaders would control the group maintaining strict discipline and driving the group to complete the job.

The difference between these behaviors and the comparatively participative and democratic behaviors in academe noted in our research is striking.

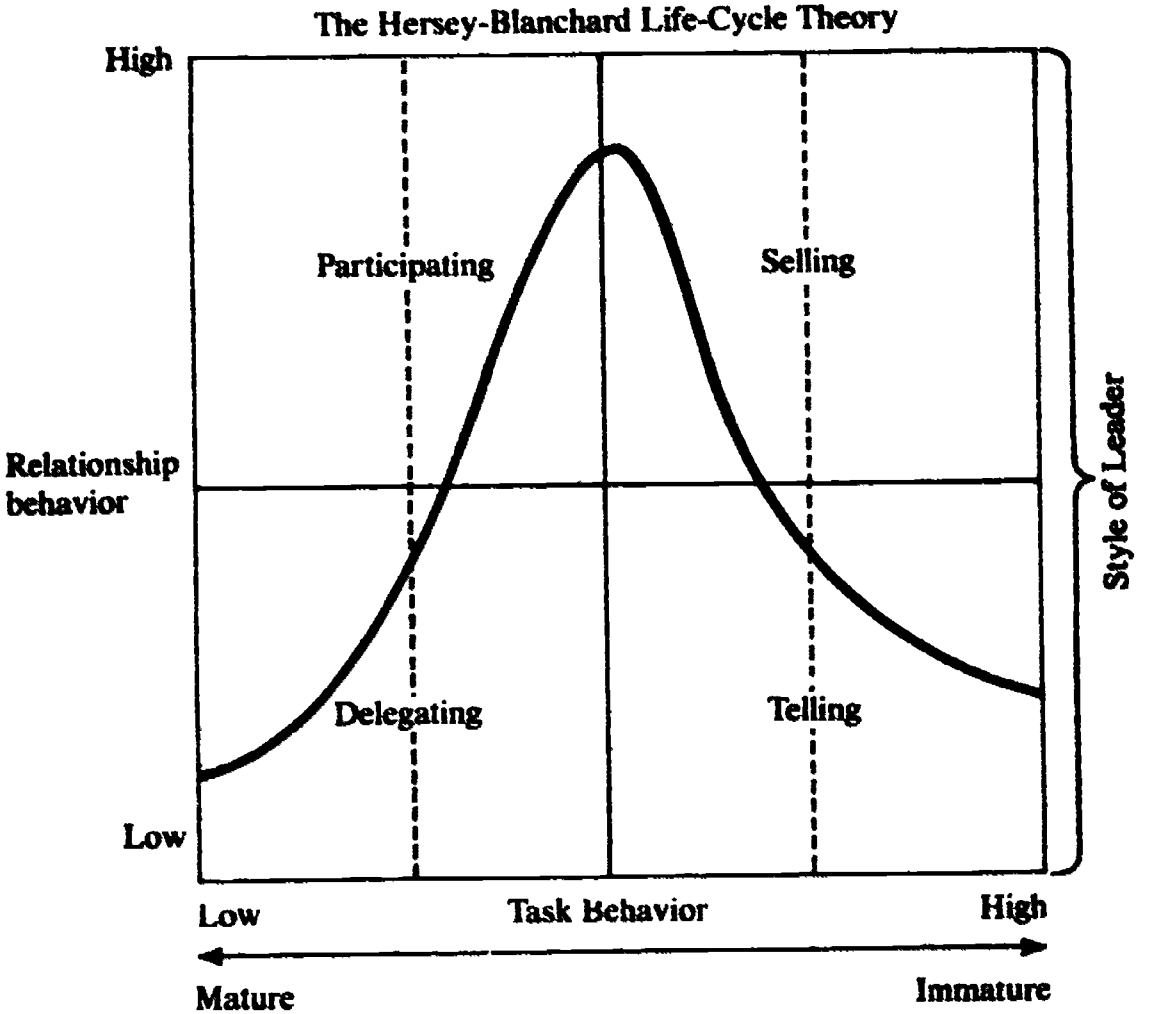
It should be recalled that Fiedler views LPC score as an enduring trait and not modifiable through experience or training. Thus, a key application of the model is to leader selection. Most department chairs should have low LPC scores. It is only in those few situations of a moderately favorable nature that a high LPC leader would be preferred.

The Fiedler contingency model speaks not only to the problem of leader selection but also to job engineering—referring to the possibility that the leader might change the favorability of the task to fit his/her LPC score. In those situations of moderate favorability, low LPC leaders would be advised to reduce situation favorability even further by reducing position power, reducing task structure or reducing the quality of leader-member relations. On the other hand, high LPC leaders in unfavorable situations would be advised to do the reverse—to create a situation of moderate favorability to which their style is most suited.

The validity of Fiedler's LPC measure and, in fact, of his contingency model is a subject of considerable controversy among researchers in the field (Hosking & Schrieshiem, 1978). Our purposes here would not be well served by reviewing the issues and evidence pertaining to that controversy. Our principal interest has been in ascertaining what sorts of things that it tells us about academic leadership, an arena in which it has had little exposure or application. In fact, it is interesting to note that it has been quite widely used in military leadership but is relatively unknown to leaders in other organizations.

The Hersey-Blanchard Life Cycle Theory. If Fiedler's work can be thought of as deriving from the focus on individual differences and leadership as a trait, the Hersey-Blanchard Life-Cycle theory can be viewed as a contingency theory built on the Michigan and Ohio State investigations into leader behavior. Hersey and Blanchard (1977) start with the Ohio State dimensions of consideration and initiating structure and derive four leadership styles based on combinations of these behaviors as shown in Figure 1. The terms selling, telling, participating and delegating are shorthand labels applied to these four styles. It should be noted that these are not different kinds of leaders as in Fielder's model but rather different patterns of leader behavior. There is no reason why a given leader could not adopt a delegating mode in one situation and a selling mode in a different situation since there is no assumption of a direct and invariant relation between personality and leadership style.

Figure 1



(Hersey-Blanchard 1977) p 170

The contingency aspects of the theory come about through a single environmental dimension—the maturity of the subordinates. Defined in terms of their "readiness to tackle the task facing the group," maturity includes elements of both motivation and of ability.

A low level of maturity among subordinates requires a telling mode (high task and low relationship) to help the group achieve success. As the level of maturity of followers increases, the leader should increase relationship behavior (selling) and then decrease task behavior (participation). Finally, when the group achieves maturity the leader should exhibit low levels of both task and relationship behavior (delegating). Thus, each of the four quadrants in Figure 1 is prescribed for a different level of maturity.

Hersey and Blanchard refer to their model as a life-cycle theory and draw an analogy between leader-follower and parent-child relations. Just as parents should relinquish control as a function of the increasing maturity of their children, so too should leaders share more decision making power as their subordinates acquire greater experience with and commitment to their tasks.

The Hersey-Blanchard model is different from Fiedler's in many ways. Its treatment of situational demands is simpler, incorporating only one dimension—a property of subordinates—instead of Fiedler's three components spanning task, leader and follower characteristics. On the other hand, Fiedler's assumption that the critical differences among leaders can be represented by a single personality variable (LPC) is replaced by a bivariate treatment of leader behavior. Furthermore, the two variables (task and relationship behavior) have more than superficial similarity to concepts with a long tradition in leadership research. Consideration and initiating structure (from the Ohio State Leadership Studies), employee orientation and production orientation (from the Michigan studies) and even task facilitative and socio-emotional leadership (from small group research) are but a few of the historical antecedents of the Hersey-Blanchard formulation. Furthermore, locating the independent variables of theory in what a leader does rather than what he or she is, permits the model to be used in leader training rather than in selection and job engineering as is the case with Fiedler's approach.

In fact, the Hersey-Blanchard life-cycle model has been widely used in training managers and executives in the private sector rivaling the Blake-Mouton Managerial Grid (Blake & Mouton, 1964), an earlier two-dimensional, noncontingency theory, in this respect.

The Hersey-Blanchard model has not received much attention from academics—either researchers or leaders. As a result, virtually no research has been conducted to validate either the model or its components. In order to carry out this research it would undoubtedly be necessary to clarify both conceptually and operationally the meaning of terms like high relationship and low task behavior and maturity of subordinates. These terms evoke strong images but the nature of the image can potentially vary among persons.

What behaviors would the Hersey-Blanchard theory prescribe for the typical department chair? Hersey and Blanchard (1977) discuss three components of maturity of "subordinates"—capacity to set high but obtainable goals, willingness and ability to take responsibility and education or experience in relation to the task to be performed. It seems appropriate to view most faculty members as substantially above average on these qualities and Hersey and Blanchard would

prescribe delegating and participating styles—not unlike those observed in our study. If one were to entertain the possibility that "subordinates" might be differentially mature on different facets of their roles, different styles would be prescribed for each. For example, if they were highly able and motivated in teaching the subject matter of their courses, delegation would be the preferred mode. On the other hand, a lesser degree of maturity in "how to get a larger budget from the university administration?" would dictate a participative or possibly even a selling or telling style.

House's Path-Goal Theory. This theory of leadership, promulgated first by Evans (1970) and later by House (1971), is predicated on some basic ideas about the determinants of individual choice behavior often called expectancy theory (Vroom, 1964; Porter & Lawler, 1968). The basic idea is that the performance of subordinates is under the control of choices made by them concerning the amounts and kinds of effort that they expend on their jobs.

Transformed into a theory of leadership, "the motivational function of the leader consists of increasing personal payoffs to subordinates for work-goal attainment, and making the path to these goals easier to travel by clarifying it, reducing roadblocks and pitfalls, and increasing personal satisfaction en route" (House, 1971, p. 324.) The leader's task is a supplemental one—to provide whatever coaching, guidance and performance incentives not provided elsewhere by the organization, work group or otherwise embedded in the subordinate by virtue of prior experience. For example, if a subordinate is uncertain about how to perform the task (role clarity is low), a high level of initiating structure on the part of the leader is called for. Similarly, if a subordinate is pessimistic that success can be achieved through effort, the leader's task should be to increase his or her confidence.

The path goal theory is perhaps more suggestive than definitive in its implications for leader behavior. It has served more to guide researchers in identifying important situational variables for use in future research. The general nature of the conceptual framework makes it relatively easy to incorporate new findings.

On the other hand, its "looseness" and the absence of readily available measures or indicators of the needed avenues for leader interventions make it less useful as a guide to practice by leaders in the academic world and elsewhere. It is clear that leaders may be called upon to behave differently toward different subordinates—increasing the confidence of one, coaching another in how to do the task, and assuring a third that effective performance will be awarded by the organization. However, the signals about when to do each, so necessary for practical use, are not readily apparent.

If we adhere to our previous assumption that most of the tasks of academe are highly unstructured, complex and nonroutine, House would argue that academic leaders should, in general, exhibit directive leadership. This would include letting subordinates know what they are expected to do, giving specific guidance, asking subordinates to follow rules and procedures, scheduling and coordinating work and setting performance standards. To be sure, some of the administrative functions of the department chair could be construed as fitting within these categories. Assigning faculty to specific courses and asking faculty members to follow university or departmental rules and procedures are commonplace. However, the provision of structure and direction by the leader on the professional issues of research and teaching appears inconsistent with what department chairs typically do. If the reduction of the anarchic properties so often found in universities is the test of the effective department chair, there would seem to be few who succeed in passing the test.

The Vroom-Yetton Decision-Process Theory. The Vroom-Yetton theory (Vroom & Yetton, 1973) is the most recent of the contingency theories to be examined. It is also the most limited in scope of the four theories. Like the others, it seeks to be prescriptive but is limited to a single domain of leader behavior—the social processes by which decisions are made.

The model makes use of the taxonomy of decision processes previously shown in Table 1. The relative usefulness of these different processes is viewed as dependent on the nature of the decision and the social context in which the decision occurs. Seven problem attributes define the situation. It should be noted that these attributes are properties of a particular problem or decision rather than relatively enduring properties of a leader's role. Thus a leader might be advised by the model to use a different approach to dealing with each of several decisions to be made in the course of a given day.

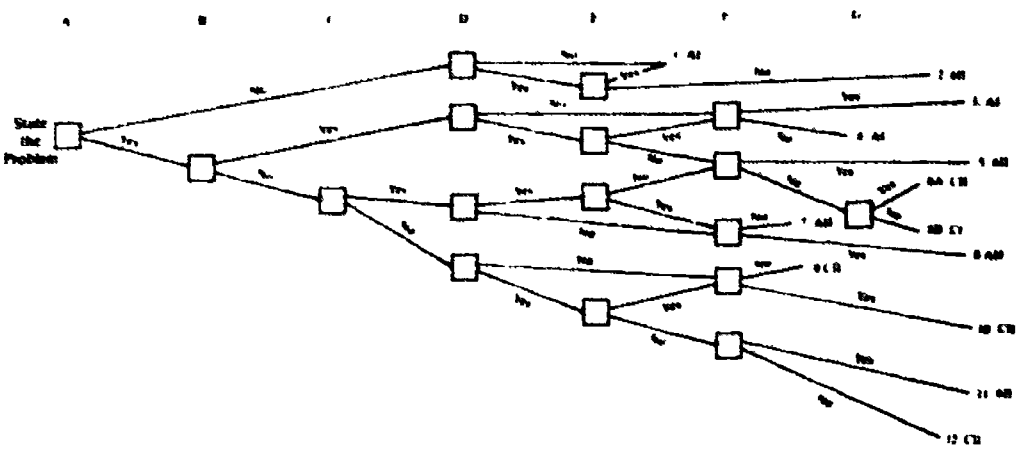
Figure 2 depicts the model in the form of a decision tree. The problem attributes are expressed in the form of yes-no questions. To use the model, one starts at the left-hand side of the diagram asking oneself the appropriate question each time one encounters a box. One's answer determines the path through the tree which eventually leads to a prescribed decision process.

As described elsewhere (Vroom and Yetton, 1973) the model utilizes a set of decision rules each of which acts to eliminate processes deemed likely to risk either decision quality or the acceptance of the decision by subordinates (Maier, 1967). If more than one alternative remains after the rules have been applied (i.e., in the feasible set), the choice among them should be based on the relative importance to the

A. Does the problem possess a quality requirement?
B. Do I have sufficient info to make a high quality decision?
C. Is the problem structured?
D. Is acceptance of decision by subordinates important for effective implementation?
E. If I were to make the decision by myself, is it reasonably certain that it would be accepted by my subordinates?
F. Do subordinates share the organizational goals to be attained in solving this problem?
G. Is conflict among subordinates over preferred solutions likely?

Figure 2

Decision Process Flow Chart (Model A)



decisionmaker of time and development of subordinates. Time pressure favors the most autocratic alternative. Model A, the time efficient model (shown in Figure 2) chooses the fastest or most autocratic alternative within the feasible set. Model B, not shown, is a time investment model and chooses the most participative alternative within the feasible set.

The Vroom-Yetton model is both similar to and different from each of the preceding contingency theories. In its treatment of the independent variable, it is similar to both Hersey-Blanchard and House, eschewing the leader attributes of Fiedler for specified leader behaviors. On the other hand, the situational variables encompass a broad range of characteristics, somewhat like Fielder, including task (attributes A, C and D), subordinate's qualities (attributes F and G), leader qualities (attribute B) and leader follower relationship (attribute E). Finally, in terms of the operationality of both independent and situational variables so necessary for practical utility, it is somewhere in between Fiedler (most operational) and Hersey-Blanchard (third position) with House, following a distant fourth.

What does the Vroom-Yetton model have to say about academic leadership? Imagine a representative inbasket of problems confronting leaders at a comparable level in each of the few institutions previously studied. We shall argue that there would be variability of each inbasket in both the levels of each problem attribute and in the behaviors prescribed. In other words, in the language of the model there will be situations in each basket calling for the various forms of autocratic, consultative and participative decision processes.

For example, consider a department chair newly appointed from outside to head a small seven person faculty. If the problem were to determine who would be assigned to teach each of several courses in the forthcoming semester, the model would prescribe GII (Quality: Yes; Leader Information: No; Problem Structure: Yes; Need for Acceptance: Yes; Probability for Acceptance: No; Goal Congruence: Yes. On the other hand, the choice of a new secretary or administrative assistant to the chair could be made by AI (Quality: Yes; Information: Yes; Need for Acceptance: No; Goal Congruence: Yes or No.)

However, it seems likely that those problems in the inbasket of a typical department chair are likely to be different, on average, from those confronting leaders in the military or business. Specifically, it seems likely that the typical academic leader is less likely to possess necessary information (due to high levels of specialization). In addition, problems are more likely to be unstructured (due to lack of repetitiveness, particularly in research activities). Furthermore, the acceptance of the decision by subordinates is more likely to be impor-

tant for effective implementation (due to the complexity and low levels of observability of subordinate behavior and the relative absence of formal control procedures) and probability of acceptance of an autocratic decision by the leader is less (due to less legitimacy of autocratic methods). A careful examination of the decision tree shown in Figure 2 will reveal that each of these differences would lead to the prescription of more frequent participative leadership styles in academic environments. Furthermore, the relatively long time frame associated with decisions in academe as compared with, for example, the military, would permit the adoption of more participative processes.

Much research needs to be done in determining and improving the validity of this contingency model. Initial results (Vroom & Jago, 1978; Field, 1982) have been encouraging and generally supportive of its current widespread use in leadership training (Vroom, 1976).

At first glance the model would appear to encourage leaders to treat all subordinates in the same manner. However, this is only true for problems affecting the entire group or team. The model has been extended to deal with "individual problems" (Vroom & Jago, 1974). Here the range of decision-making processes has been broadening to include other alternatives including delegation. Delegation is most frequently prescribed for situations in which the subordinate shares the organizational goals and has the necessary information and expertise (cf. Hersey-Blanchard).

Summary

Our excursion through the four contingency theories shows marked differences among them in the amount and kind of advice they would provide to leaders in academe. Not surprisingly, there is considerable disagreement. Fiedler would urge the appointment of department chairs with low LPC scores. Such persons would be oriented toward the task to be done and not to the feelings of others. In the relatively unfavorable situations of academe (low position power and unstructured tasks) such leaders would do what is necessary by controlling the group and driving them to complete the job.

The prescriptions from House's path-goal theory, while somewhat more problematic due to the more abstract nature of the concepts, paint a similar picture of the effective departmental chair. The complex, nonroutine and challenging tasks which, we have argued, abound in academe, call for a high level of initiating structure, i.e., coaching, guiding and deadline setting.

On the other hand, Hersey-Blanchard and Vroom-Yetton provide a

different set of prescriptions—both somewhat more consistent with observed differences between universities on one hand and military and business reported earlier. Attending to the high level of training and integrity found among most faculty, both of which are signs of "maturity", Hersey-Blanchard would call for relatively low levels of task behavior and even of relationship behavior. The appropriate styles are termed delegating and participating with a minimum of telling and selling. Similarly, Vroom and Yetton utilize these attributes and several others to prescribe on average more participative but also more flexible and variable forms of leadership in academe.

While these four theories differ widely in their prescriptions, it is interesting to note that they share a focus on face-to-face interaction between the leader and those members of the organization reporting directly to the leader. This internal function is clearly important but is it all of leadership?

In the academic world, as one moves from department chairs, to deans, to university presidents, it would appear that leaders increasingly exhibit patterns of behavior that have a marked influence on organizational effectiveness but are not mediated through subordinates. The impact of Kingman Brewster on Yale University or of Father Theodore Hesburgh on Notre Dame cannot be understood solely in terms of principles of superior-subordinate interaction.

There are at least two sets of processes that are integral to leadership at higher organizational levels that I believe to be overlooked by most students of leadership. The first of these is an external function of the leader. Organizations, including universities are not closed systems but open ones in continued interaction with their environments. The role of the leader is to mediate that interaction—charting a course through that environment and obtaining the necessary resources for organizational survival is both the short and long term.

A second set of overlooked processes pertains to the leader's interactions with orgainzational members other than direct subordinates. Leaders, particularly those in positions of higher responsibility not only perform ceremonial functions or what Cohen and March refer to as "royal" activities, but also present their ideas and programs to organizational members. James McGregor Burns (1978) refers to transforming leadership in which the leader shapes the values of members around the importance of organization's product or service or mission. Peters and Waterman (1982) report, based on their study of excellent companies in the private sector, that such organizations possessed, either currently or early in their history a leader who served to create a sense of institutional purpose which continued to lend meaning and direction to the activities of organization members.

The status of our knowledge concerning leadership in organizations is still quite primitive. Despite the 5000+ citations in Bass' recent treatise on leadership (Bass, 1981) there is much that has been overlooked or that is misunderstood. Hopefully by continuing to construct bridges of the sort that we have sought to build here—between academic theories and research and institutional relevance—both the theory and practice of leadership will be advanced.

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DECISION STYLE AND ORGANIZATIONAL BEHAVIOR: IMPLICATIONS FOR ACADEMIA

Michael Driver

It seems that higher education organizations are suffering from an increasing malaise: faculty demotivation. Both the Oldham and Kulick and Locke, Fitzpatrick and White chapters in this volume point to a distressing decrease in faculty motivation from 1970 to the present. No doubt factors such as decreasing enrollments, decreasing budgets and decreasing mobility play some role in this problem. But I would like to suggest another possible cause—changes in thinking patterns in our universities.

From their earliest inception in medieval Europe, universities have been centers of avant garde thinking an order of magnitude more complex than in surrounding communities. At times this type of thinking may have led to serious gaps between universities and communities (Haskins, 1923). For their part, scholars may often have departed into obscurantism, while jealousy and fear may have blunted the communities' ability to glean insight from the universities. These gaps, even from earliest times, have sometimes led to bloodshed.

But on the positive side, the universities' type of thought has played a vital role in the inception of such pillars of our society as science and democratic political theory. While others were sunk in practical ruts, universities were expanding the frontiers of knowledge and building an educated element in society. On occasions, some universities operated in opposition to this broadening trend, but on the whole, the function of these institutions was to increase awareness in all aspects of life.

I would submit that this type of thinking is increasingly in trouble in American universities; that because of internal and external forces our universities are beginning to foster a type of thinking more at home in a

Michael Driver is professor of Management and Organization, Graduate School of Business Administration at the University of Southern California.

steel mill than a university. I sense that creativity and complexity may both be threatened by current developments.

This decline cannot be a source of concern alone for faculty. I would venture that as faculty thinking changes, and morale declines, so will performance. This cannot help but dismay students and administrators, and ultimately society.

The current furor over secondary and elementary education's sad plight may only be a prelude for the dismay that will occur when the public discovers what is going on in our often very expensive colleges and universities. At least this is one scenario. Another one is that the public itself is creating the very type of university it wants.

In any case, an understanding of thinking processes may shed considerable light on the current problems facing organizations of higher education. I would like first to review briefly the emergence of the cognitive style field and then show how this area can help analyze what is going on in academia as well as hopefully offer blueprints for solutions.

Cognitive Styles

Until recently the main approaches to understanding thinking in people took one of two forms:

a. The experimental tradition
b. The testing tradition

The experimentalists diligently studied how "man" thinks. They produced models of problem solving, decision making, perceiving and learning based on these analyses. Today some of these models operate as computer programs which will diagnose your illness or offer psychotherapy.

This approach is epitomized by the work of Simon (1957), who is convinced that people "satisfice"; that is, use only enough data to get a "good enough" solution. He totally rejects the rational man model, beloved of econometric theorists. Simon's work is buttressed by a plethora of studies showing man's dislike of complexity (Bass, 1983).

However, others working in this school have sought to defend the rational model (e.g., Katz & Kahn, 1966). They have deplored simplistic thinking processes in the best tradition of the universities of the past. Still others have tried to find causes for common man's lapse from the grace of complex thought. For instance, Janis & Mann (1977) argue that too much or too little threat can produce undesirable simplifications in decision making—a phenomena that ties back to the

Yerkes-Dodson Law. This law states that performance is optimal at moderate emotional arousal.

If we are to be content with the general experimental view, the answer to the "flaws" in man's thinking is clear: create optimal environments to maximize complexity. A subtle view has also emerged using what is called a contingency approach (Etzioni, 1967). In this view one should first assess situational factors such as the importance of a decision, then arrange the environment to induce the "right" amount of complexity in the people involved. Sometimes the participants are invited to join in this matching game by shifting their thinking to meet circumstances.

The testing approach views this entire outlook as an absurdity. The essence of testing is individual difference. There is no "man", "people" do nothing: there are different types of man; some people do one thing, others something quite different. The extreme of this view was reached in intelligence testing, where life-long genetic patterns are seen as major factors in all areas of thinking—school or work. The environment in this view becomes irrelevant.

A middle ground is emerging. In this view thinking is a joint product of both external forces (such as stress) and long term dispositional factors. Cognitive styles are internal factors in thinking which lend themselves nicely to this middle road.

Cognitive styles are defined as learned thinking habits. Intelligence tries to capture the upper limits of a person's thinking capacity; styles try to measure a person's typical method of thinking in a given situation. Cognitive styles are, therefore, not absolute in any sense. They can be modified by further learning, and there is no absolute best style. In almost all theories, each style is best in some situation.

There are many models of cognitive style—see Goldstein and Blackman (1978) or Warr (1970). In the Organizational Behavior world two or three models have surfaced prominently (Taggart and Robey, 1981). Perhaps the best known is based on Carl Jung's typology. This approach uses an instrument developed by Myers-Briggs (Myers, 1976) and yields several types of scoring. The simplest typology based on Myers-Briggs postulates four thinking styles:

1. Sensing—Thinking
2. Sensing—Feeling
3. Intuitive—Thinking
4. Intuitive—Feeling

The Sensing types are grounded in practical here-and-now detail while the Intuitive are engaged in abstract elaborations. The Feeling types are basically people oriented while the Thinkers are idea oriented.

Each combination has been found to be drawn to particular career areas or types of organization(Mitroff & Kilman, 1976). For instance, the Sensing-Thinking types like organizations that are stable, structured and work centered, while the Intuitive-Feeling types like open, humanistic organizations.

Another fairly well known model is even simpler. It contrasts an Analytic with a Holistic style. Several different theories and methodologies have converged on this model (e.g., Huysmans, 1970; Witkin 1954). This view saw a great surge of interest when it was linked with the left-right brain phenomena (Sperry, 1964). The Analytic style is seen as verbal and linear in thought. The Holistic is seen as image oriented and non-linear.

Again, fascinating research has related this approach to occupational choice. Left brain people are found among operations researchers and engineers, while right brain dominance is seen among architects and managers (Dabbs, 1980; Doktor & Bloom, 1977).

These approaches, however interesting, are all heavily person oriented. They are nearly pure typologies that tend to ignore the effect of environmental factors such as stress on thinking. I believe that most of these cognitive style theories will begin to include environmental factors in the near future. Decision style theory that follows is an effort to follow this prescription.

Decision Style

Although I call the model Decision style, it is really a general information processing style (Driver, 1979). It has two basic dimensions:

1. The amount of information used.
2. The number of solutions generated.

Information use refers to the amount and complexity of information actually used in thinking. At one extreme are people who habitually use every piece of available information in a situation. Borrowing from Simon, I call this pattern *Maximizer*. At the other end one finds people who use just enough information to get one or two useful alternatives. I use this term *Satisficer* to describe this pattern. I believe that people typically operate somewhere between these extremes.

It should be clear that while academicians like Katz and Kahn (1966) or Janis and Mann (1977) are strongly advocating maximizing, "realists" like Simon are saying that "people" are satisficers. I believe that they are both correct: some people maximize, some satisfice—and most are in between.

I might note that some Maximizers are never satisfied, they always need more information. I view this extreme as rather pathological, based on fear of failure (among other causes). There is also another extreme—the satisficer who uses no information. I call this pattern the "Lurcher". Here again we may be dealing with pathology or limited intelligence.

The second dimension in Decision Style deals with focus—are the data reduced to a simple conclusion, one decision; or are options kept open and pluralistic? Two extremes exist. The *Uni-focus* style must always get one right answer. This style usually works from a single absolute value system in a very linear, logical fashion. The *Multi-focus* style on the contrary never closes. There are always several possible answers, values are multiple and relative. The tendency is to be intuitive and holistic.

Putting these two dimensions of information use and focus together generates the model seen in Table 1. Each quadrant represents an extreme style type. The *Decisive* style uses just enough information to get a good answer, then locks in and tries to make it work. This style is highly action-oriented, high achieving, efficient and extremely reliable. They are on time to the second. Good examples of this style would be Harry Truman or Ronald Reagan.

Table 1

Five Decision Styles

	Amount of Information Use	
Focus	**Satisficer**	**Maximizer**
Uni-	Decisive	Hierarchic
		Systemic
Multi-	Flexible	Integrative

The *Flexible* style also uses just enough data to get a solution also but there the similarity ends. The Flexible style always keeps options open. They are willing to shift to another option whenever the environment changes. They are adaptive, intuitive and often quite popular since they seem to agree with most people. Franklin Delano Roosevelt or Gerald Ford stand as examples of this style.

The *Hierarchic* style is totally opposite. In this style one uses very large amounts of data, analyzes them very carefully and then develops a complex plan that could guide behavior for years. There is ample use of contingencies to deal with any expected problem. Control over the

environment and others is then exerted to make the plan work. Richard Nixon and Henry Kissinger exhibited extreme forms of this style, while Jimmy Carter may have been a less intense version of this style.

The *Integrative* style also uses large amounts of data but does not focus on one plan. Instead it pursues multiple options simultaneously. If Integrative persons had several mouths they would be saying several solutions at once. Since they do not have multiple mouths, they constantly interrupt one line of thought with another: "on the other hand . . . ," "but of course you realize . . . ," etc. They are often very creative, they thrive on group discussions and are almost never on time. A good example of this style might be Adlai Stevenson.

A final style has been identified from our research—the *Systemic*. This style seems to operate at first as an Integrative—exploring all options; then they shift to a higher order schema to prioritize options—more like a Hierarchic. They are generally between Integrative and Hierarchic in most areas, except possibly in communications where, like the Hierarchic, they must fit what you are saying into their framework before they hear you.

To this point we have a pure typology like preceding models. In fact, one might note similarity between my "Focus" dimension and the Analytic-Holistic model and between my "Information Use" dimension and the Sensing-Intuitive dimension of the Myers Briggs.[1] (In fact, both pairs are empirically correlated. See Schutt, 1978a, Ridgeway, 1977.)

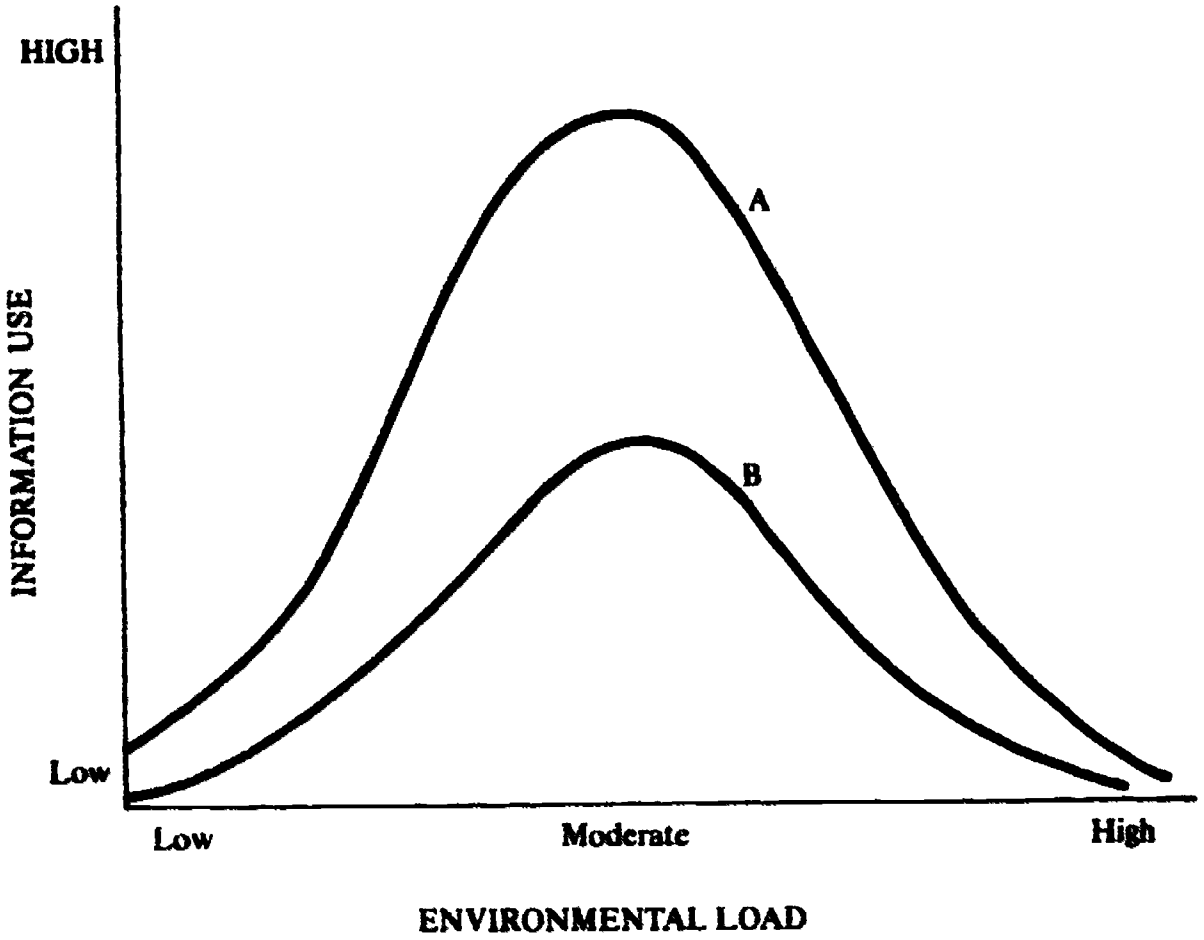
However, Decision Style theory adds a very important environmental component: Load. Environmental Load is defined as the rough summation of four factors:

1. *Information Complexity*—the amount of data in the situation.
2. *Noxity*—the amount of negative input, (e.g., stress) present.
3. *Eucity*—the amount of positive input (e.g., praise) present.
4. *Uncertainty*—the unpredictability of the situation.

Each of these factors relates to information use in a curvilinear fashion (see Figure 1). A wide range of research supports the premise that at moderate load, people use maximum information, while at either extreme, information use declines (Driver & Streufert, 1969; Driver & Mock, 1975; Driver & Rowe, 1979). Under high load, or "overload," we all begin to simplify; whereas, in low load conditions we are dealing with trivia (i.e., certain, simple issues with no reward or threat); hence, we use little data.

We believe that the Focus dimension relates to Environmental Load in a similar fashion. Uni-focus thinking is most apparent under overload or underload conditions. Data here are not as rich, although research linking rigidity and stress is very supportive (Warr, 1970).

Figure 1
Information Use Patterns as a Function of Environmental Load



Combining this model with the basic styles yields the notion that each individual person has a characteristic response curve describing his/her thinking across all environmental load levels. For instance, if a person has a pattern like A in Figure 1, he/she will use a high information style (e.g., Integrative) under moderate load and shift to a satisficing style (e.g., Decisive) under high or low load. If a person's pattern is like B in figure 1, that person might remain within one style (e.g., Decisive) over all load conditions.

Most people, however, operate with at least two styles—a Dominant style that is seen most of the time, and a Backup style that emerges only less frequently. Any combination of styles is possible. We can have a person who is dominantly Decisive but has a little "window" where the environment load is moderate, and an Integrative backup style shows up. Conversely, one could have a dominant Integrative style over most of the moderate load range and show a Decisive backup only under extremes.

This pattern of response is quite stable although the observed style will change systematically as load changes. Our research has strongly supported the existence and stability of these curvilinear patterns. (Schroder, Driver & Streufert, 1967; Alawi, 1973). These patterns make it harder to perceive style accurately as we often see only the Dominant style, particularly if we are Decisive or Flexible.

At this point, we should take another look at the issues that opened this discussion. In style terms, I could suggest that universities were safe harbors for Integrative dominant style people in a sea of more Decisive or Flexible communities. To be sure, at times universities became far more Hierarchic or Systemic—especially in Europe; but in general, an Integrative pattern most closely fits the mission of universities to develop and spread new knowledge.

At present we may be entering a period in this country where university faculties and administrators are becoming increasingly Decisive. To explain this in a very simple way, we could say that an overload condition is prevailing which is driving everyone into almost perpetual satisficing and focusing. This overload could be seen as a combination of too much noxity (less money, less security) and too much complexity (information explosion). We might even go as far as to speculate that the public is also getting more Decisive for similar reasons. This trend would suggest that all is actually well—that a more Decisive educational process is just what is wanted—back to the basics.

However, this summary is far too simplistic. For one thing, people do not seem to suffer style change gladly and we can only guess at the long-term effects of being forced into an unwanted Decisive style.

Discussions I have had with people in that situation suggest they continue to be frustrated at having to do a non-professional job or to "hip-shoot" on programs. Hence, morale is not likely to increase in this scenario.

Given this, we may witness an exodus of the more Integrative types to industrial research sites, government, the media and other possible havens. Would this not solve the problem? I do not believe so. For there lies a broader world beyond the United States.

My data suggest that in the Orient and Europe a strong respect for the Hierarchic style exists. This results in long range planning, heavy research budgets and concentrated attack in execution of strategies. Japan comes to mind. Our culture's success is being challenged economically and even technically. I fear that a Decisive response—short range planning action rather than thought, volume rather than quality, traditions not innovation—has not been successful. Hence, if the educational system increasingly fosters Decisiveness, the future does not look bright.

Obviously this analysis is purely hypothetical. Yet it is not implausible. How would one use Decision Style theory to test this model of how universities are changing? What remedies could the style model offer? To understand answers we need to take a quick look at how the model can be used in organizational analysis.

Applications of Decision Style

One of the deepest applications of Decision Style theory is in the area of strategic planning. Analysis of style can accomplish three things:

1. Help select planning roles/teams.
2. Determine stylistic capacity in employees to enact strategies.
3. Help assess the direction of demand in relevant publics or customers.

The first issue is relatively straightforward. Each style is hypothesized to have a preferred planning mode: Decisives should like short range scheduling, Hierarchics, long range annual planning; Integratives, a continuous participative planning process; and Flexibles "play by ear." In our work in corporations, we have found it dangerous to get Flexibles into long range planning, whereas for creative brainstorming they are essential. A team of Maximizers with one or two Decisives to keep deadlines relevant and translate ideas into tactics works well in strategic planning tasks. Such groups could be assembled for university planning.

Given an effective group in planning, two other applications follow. First, the university faculty and administrators can be measured on styles. This can be done in at least two ways:

1. A probe—a statistically balanced sample of key departments, units and levels.
2. A cascade—a total sample of all employees beginning with the President and his staff and moving down layer by layer.

The probe is followed up only by general lectures on style and individual results. The cascade is done in the context of a development program where smaller groups are given training in style and then given individual results in a one-on-one manner. Both methods have been successfully tried in several organization.

The style data can then give planners valuable insights into strategic options. For instance, if one wants to go into an entrepreneurial venture, a high frequency of Flexible style would be very supportive, since new, quick developments suit that style. In a university setting, plans for a more creative research image would be aided by a high count of Integrative style.

Finally, the style model can be used to measure public trends and key clients. For example, the Astin (1980) surveys of college freshmen do not directly test style but reveal trends greatly related to style. For instance, there has been a major shift in student attitudes recently from valuing a "philosophy of life" to valuing "professional authority" and "administrative responsibility". I can interpret this as signalling a trend away from career concepts tied to the Integrative style to concepts tied to Decisive and Hierarchic styles (Driver, 1981b; Prince, 1979). This analysis could support several strategies—either gearing up for a structured Decisive training program or consciously planning to incorporate style change in the curriculum.

By putting together internal and external style data, strategic planning can be greatly enhanced. Clearly all the intricacies of this kind of planning cannot be discussed here. It should be noted that this process has worked for us in many organizations. If tried in a university, outside expertise is strongly suggested given the peculiar disregard universities hold for inside experts.

One last point on this issue. If a number of universities around the country were to undertake style probes, we might get a data base to assess actual trends in style within our institutions and put the "Decisive trend" model to an empirical test.

Once an organization has a strategic thrust, the style model can be used to develop a supporting personnel operation and organization design. As noted, a given strategic position can strongly dictate the design of work and selection of people for jobs. If creativity is needed

for instance, work needs to be "destructured". In a university setting, the teaching technology can be designed to fit strategic objectives.

For instance, if the strategy is to enhance a Decisive thinking style among students to satisfy public demand, style theory can prescribe particular training approaches. (See Schroder et al, 1967; Streufert & Streufert, 1978; Athey, 1976). We know that Decisive style is fostered by rigid structure, time pressure and unilateral lecture technique. We also know that Integrative thinking can be fostered by low structure and heavy emphasis on discussion and reading. Similar insights into developing Flexible or Hierarchic thinking exist.

Lest such ideas be seen as too manipulative, keep in mind that courses have style impacts whether planned or not (Driver, 1981a). Is it not better for faculty and students to know what they are doing to styles? The current net impact of no planning seems to be a mass proliferation of the Flexible style in the college students I have tested around the country over the last ten years.

Research and administrative jobs can also be analyzed and designed to enhance strategy. The style approach offers an additional factor to the motivational oriented approach of Oldham and Kulik in this volume. The approach is based on the idea that when a person's style fits job demands and motives fit job rewards, morale and productivity are optimized. The style approach to job analysis involves an elaborate look at job activities desired, followed by a profiling of the job on the styles needed to meet these demands. Demands are both intrinsic to the task (i.e., information processing) and social. An incumbent's style ideally should fit both the information aspects and the people dealt with in a job.

In a teaching job for example, one might want to assess the amount of information involved, the degree of change in the information, the amount of creativity required, the amount of planning and so on. We would also want to assess noxity-eucity factors to get a picture of total load. Noxity and eucity factors could range from work conditions to pay. Simultaneously, we would want to know what style is used by students as well as colleagues and relevant administrations. We have very good data which indicate that style is a major factor in interpersonal liking, even in a classroom setting (see Streufert & Streufert, 1978).

In sum, if the teaching technology is complex yet structured, load factors are not excessive, the students are Decisive, and the desired strategy is to keep them Decisive, a Hierarchic/Decisive style professor would fit well.

Selection using style instruments is underway in many organizations (Driver & Rowe, 1979). Our preference is to combine selection with

feedback and training in a career development model. Individuals who do not "fit" can be advised of better fits with other profiled jobs or of training opportunities to adjust their styles (and sometimes might participate in re-designing the job to fit them better).

It should be clear that in complex organizations many jobs will not have the same style profile and that pockets of people of different styles are the rule. In universities, for instance, departments might have differing strategies and students—hence different job profiles. One might even find consciously designed style differences in tracks within a department. Moreover, in conjunction with career development, training for faculty and administrators in style and workshops in style change would be critical parts of style applications. One experience I have had with style training for university administrators was very well received—like water in the desert.

A more elaborate approach to career development is to examine a series of jobs for style demands (Brousseau, 1983). A fairly consistent finding in my research is that first level supervision needs to be Decisive, middle management Integrative or Hierarchic, and senior management Decisive with Integrative backup style. If so, training events should occur at key transition points to facilitate needed style shifts. For example, a full professor may have a very different style need from an Assistant Professor. The latter may need to produce a truly amazing number of short simple articles to meet standards (and hence be Flexible or Decisive) while a senior professor may be required to mentor, edit and assemble collections—a more Integrative role. Style transition training could be very helpful in such cases.

A critical area for potential style application is in performance appraisal (Prince & Driver, in press). Style theory would argue against a single uniform appraisal system. Each style might well be given a different type of performance appraisal. For example, a Decisive person might respond well to a clear, precise Management-By-Objectives approach which laid out specific achievements to be attained in a year. In contrast, a Flexible person would find this approach a strait jacket; a loose, but frequent discussion of changing objectives is far more suitable here.

Maximizing styles are likely to prefer longer intervals, e.g., a Hierarchic might want to develop a five year plan. Integratives would probably balk at focusing on objective results or other "bottom line" factors; instead they would probably prefer to develop qualities such as creativity over time and have the system open to change.

Another point on performance evaluation. The style of the evaluator should be compatable with that of the evaluatee. I leave to imagination a discussion between a Decisive department chairman and an Integra-

tive Assistant Professor on the number of publications that should be produced in a given year.

At present, universities seem extreme in their reliance on Decisive evaluation. Short range, easily countable volume seems the rule. (Why this may be the case, I will discuss below.) If we are to encourange anyone but Decisives, this practice will be ruinous.

Assuming that individual issues are dealt with, the style model can also address groups and organizational problems. The composition of research teams using styles for maximum creativity has had been tested (Driver, Reynolds, & Boulgarides, 1971). Committees can become something other than futile exercises with effective style combinations. As one example, consider a room full of extreme Hierarchics trying to resolve an issue. Without help such a scene would rapidly degenerate into a contest of who could talk the longest and listen least. (Stager, 1967).

At a broader level, style can become a major tool in the design of organizations. Organizational Behavior theories are beginning to surface suggesting that it may be the style of the power elite (Bobbitt and Ford, 1980) or the work force (Mealiea and Lee, 1975) that shapes organizational structure. Thus, a Decisive president will build an organization in his own image.

Conversely, extant patterns of organization structure may attract particular styles (Driver, in press, a). Current theory is that a Decisive should prefer an organization that is quite structured and not too complex. A small business in a stable market with a traditional pyramid structure would be fine. Particularly attractive may be an autocratic system where rules are simple—do what the boss wants. When a Decisive gets into a large bureaucracy his tendency may be to break it down into a series of small autocracies. Paradoxically, the Decisive style should opt for decentralization.

The Flexible style should prefer a loose, temporary organization. Many partnerships fit this description. So does Warren Bennis's (1969) term Adhocracy. For Flexibles, temporary teams changing as needed would be ideal.

The Hierarchic's best fit is probably a good bureaucracy. A "good" bureaucracy is one which has rational rules, selects on competence, and permits long term strategy. Integratives and Systemics may fit better into matrix structures or more participatory systems such as Likert's (1961) "linking pin" structure with its series of overlapping ascending committees.

Our research to date in this area is tentative. We have some support that Decisives work best in small bureaucratic offices (Boulgarides, 1973; Schutt, 1978). Alawi (1973) found that Hierarchics prospered in

large traditional bureaucracies while Integratives and Systemics went further in aerospace matrix organizations.

With respect to the academic world, I might suggest that almost every style has found a champion with respect to organization. Millett's (1962) version of a total community comes close to an Integrative's dream. Blau's (1973) view of a classic bureaucracy is, of course, quite Hierarchic. Weick's (1976) concept of a loosely coupled, quasi-autonomous system fits well with the Decisive concept although with temporary groupings this could also fit a Flexible ideal.

Style theory would suggest that organization design is optimized when structure fits both individual styles and strategic environmental forces. When these two factors differ, multiplicity in structure may be needed. For instance, a university might want a community structure to foster an Integrative research institute while holding onto a traditional bureaucracy for producing Hierarchic engineering graduates.

It should be evident that Decision Style can be used to build a totally integrated, career and management-oriented, human resource system (Von Glinow, et al., 1983). However, Decision Style alone is not nearly enough for a complete system. It must be supplemented by other human factors as needed (e.g., motivation and growth need).

We can now take a second look at the questions behind this section: How do we determine what style dynamics are going on in academia? How do we shape these dynamics to best fit national and human needs?

Clearly, by measuring people and jobs along with external environments, over time we can begin to answer the first question. Our data to date are very sketchy but they suggest that:

1. Integrative style is correlated with faculty success rating in a small college; but,
2. Decisive style is most frequent in that faculty (McGinness, 1980).
3. Decisiveness is highly correlated with management capacity in a fairly conservative small college (Schutt, 1978 b).

A Decisive trend overpowering Integrative job demands (at least for faculty) is apparent.

As to the second question on remedies, I have outlined a set of steps above to produce any desired style outcome. As a closing exercise, I'd like to develop a more elaborate model of how a Decisive trend may be developing and offer a blueprint for reversing the trend.

A Dynamic Style Analysis of Academia . . . and a possible solution.

In nearly total absence of actual data on style patterns in the university world I shall try to construct as realistic a hypothetical

scenario as any vantage point within this world will permit. Let me make some simplifying assumptions:

1. Senior management—President, Vice Presidents—are dominantly Decisive.
2. Middle management—Deans, Associate Deans—are Hierarchic with Decisive backup.
3. Department Chairs are increasingly Decisive with time in the job, gradually losing Integrative or Hierarchic professorial styles.
4. Assistant Professors are Integrative or Hierarchic with increasingly strong Flexible backups as publishing pressure mounts.
5. Tenured faculty are Integrative or Hierarchic.

All of this holds at moderate Environmental load. It might fit any large research oriented university.

Now imagine a downtrend in the economy combined with a decreasing enrollment. Load in the form of noxity and uncertainty increases. Given the pace of the information explosion, input complexity remains high. Pay remains steady or may decline into underload conditions. The environment on balance increases in load.

The impact of load increase is summarized in Figure 2. The first to sense and feel this load pressure may be the senior level administrators. Already fairly Decisive, this load increase will press them for a "tightening up" all around—an even more Decisive posture. The Dean will respond by instituting tighter controls over resources, teaching methods, time, etc. This control will get more simplistic as pressure mounts and the Deans shift to Decisive from Hierarchic styles.

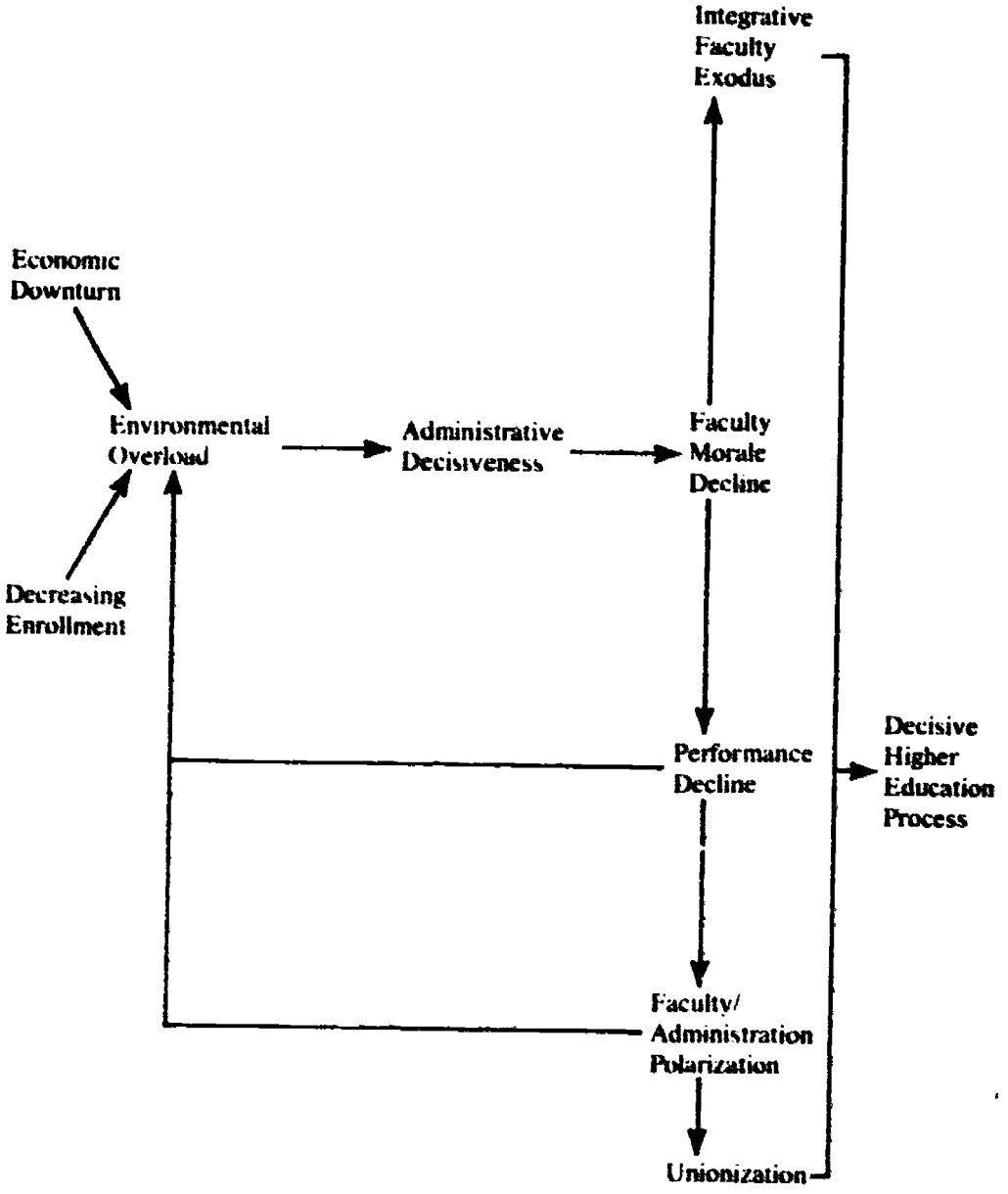
The Department Chairman will abandon any remnant of non-Decisive styles and "get tough". A Decisive administration will set in, characterized by:

1. Task oriented leadership.
2. Absolute reliance on simple rules.
3. Simple, short run performance appraisals, (e.g., teacher ratings, publication counts).
4. Disappearance of all semblence of participation in decisions by faculty.

The response by faculty should vary by tenure level. The untenured are likely to revert to their Flexible backup style and appear to go along, but with increasing tendencies to stray off campus to more open and free consulting or irrelevent activities. The tenured faculty is likely to resist either style change openly or shift to satisficing backup styles; but in either case, morale will sag, as the intrinsic reward properties of their work disappear.

Ironically, some performance, as measured by Decisive standards, may at first go up, i.e., journal count increases. But quantity will drive

Figure 2.
A Simplified Model of the Effect of Environmental Overload on Academic Thought Processes.



out quality to the increasing distress of most faculty. Moreover, one performance measure may drop quickly, student ratings, as students can sense lack of enthusiasm. Poor performance will increase stress on the administrators, creating an even more Decisive pattern.

No counter pressures are likely from outside the university either. For example, professional journals will be flooded with short, Decisive articles. This load is likely to place a premium on brevity and simplicity as criteria for acceptance. Elaborate, theoretical pieces are likely to gradually disappear.

Two outcomes are likely eventually, given this scenario—homogeneous Decisiveness or polarization. In the latter case, the increasingly Decisive but unhappy faculty will develop an increasingly negative view of dictatorial administrators who will reciprocate in their dislike of an "impractical dreamer" faculty. The end of this process is faculty unionization. This adversarial relationship is likely to increase Decisiveness on both sides.

The second scenario sees a gradual exodus of the non-Decisive faculty for more congenial spots in industrial research labs, government jobs, writing and the like. In either scenario, the university would become a Decisive preserve—training a Decisive student body to be more so. Given certain world conditions, these scenarios do not present a necessary problem. In many situations, Decisiveness in an admirable and useful style. However, I believe that external competition can outplan and outmaneuver an overly Decisive U.S. economy. I also wonder how long our democratic political form would survive this trend.

If these suppositions have any validity, what might style theory suggest to arrest these trends? Many business organizations have faced similar problems of environmental overload by the use of buffering (Thompson, 1967). In this view, an Integrative core of creative talent or researchers is insulated against load by a more hardy outer ring of Decisive/Hierarchics in sales or public relations. In a university one might imagine an insulatory group of fairly Decisive business managers and front line teachers handling the external pressures. Somewhat removed would be more Integrative institutes for advanced work and teaching. This split culture would require very sensitive management to avoid polarization and hostility between the two groups.

A crucial role requirement would be administrators who could bridge both worlds—"boundary spanners." In this scenario, administrators with Integrative/Decisive style patterns could be consciously chosen to fill this boundary role. In addition, separate personnel policies (e.g., hiring, job design, performance appraisal) would be needed to support totally different styles.

Since this is only a hypothetical case, more elaboration on solutions is not warranted. Hopefully, this discussion gives the flavor of how decision style can help analyze and resolve organizational problems.

One last comment. McKeachie (1982), and Magarrell (1982), as cited by Oldham and Kulik later in this volume, describe academic phenomena which bear an uncanny resemblance to the scenario developed here. I had no awareness of their data until after constructing the scenario. Clearly, academia would seem ripe ground for Decision Style research.

Conclusion

I have attempted to present perhaps an overdramatic statement of the direction in thinking being taken in universities today. Nevertheless, there may well be a strong element of decision style frustration at the root of academic malaise. I do not propose that style is the master key to all problems. Rather, I think its value as a tool in organizational analysis has only begun to be seen in the business world and is virtually unexplored in higher education institutions.

My intent is to use my own style model as an example of what a broad cognitive style theory linked to environmental analysis generally can do in organizational behavior research. I have elsewhere tried to grapple with the issue of how many style dimensions are necessary for effective organizational analysis (Driver, in press,b). However, the systematic use of even one such style dimension in research programs could shed great light on the problems of academic organization that are the focus of these articles.

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STRATEGY FORMATION IN THE UNIVERSITY SETTING

Cynthia Hardy, Ann Langley, Henry Mintzberg and Janet Rose

It is well-known that strategies are formulated before they are implemented, that planning is the central process by which they are so formulated, and that structures should be designed to implement given strategies. At least this is well known to those who have read the conventional literature on strategy making. In the university setting, these imperatives stand almost totally at odds with what really happens, leading to the conclusion either that universities "have it all wrong" or that the strategy theoreticians do. Several observers of the university scene have been prepared to argue the former point. Some have suggested that few universities have strategies and that they had better develop them following the methods generally accepted in business (e.g. Dube & Brown, 1983; Doyle & Lynch, 1979). Others have noted that when universities do formulate strategies, they consistently fail to implement them satisfactorily because of a deplorable lack of administrative power, leadership skill, or courage in the face of opposition (e.g. Hosmer, 1978, Ladd, 1970, Lutz, 1982).

We, on the other hand, believe that the conventional view of strategy—as a plan, or a set of explicit intentions preceding and controlling actions—is too narrow to permit a satisfactory understanding of strategy formation in the university setting (as well as many others). An alternate view of strategy focusses not on *a priori* articulation of *intention*, but on the existence of consistency in the actions and/or decisions emerging from an organization. Specifically, we define strategies as *realized* as patterns in streams of decisions or actions (Mintzberg, 1972, 1978; Mintzberg and Waters, 1983). This definition allows basic but unarticulated orientations to be viewed as strategies.

Based on this definition, the study of strategy formation in the university setting takes on a new interest. Rather than merely throwing

Cynthia Hardy is assistant professor of Policy and McGill University, Montreal; Ann Langley is a doctoral student at Ecole des Hautes Etudes, Montreal; Henry Mintzberg is Bronfman Professor of Management, Faculty of Management, McGill University; and Janet Rose is research assistant, Faculty of Management, McGill University.

up our hands at the infrequent use or abortive outcomes of explicit strategic planning, or, alternately, going to the other extreme and dismissing universities as "organized anarchies" with strategy making processes as mere "garbage cans" (March and Olsen, 1978), we are able to focus on how decisions and actions order themselves into patterns over time.

We begin by developing in more depth the concept of strategy introduced above. We then focus on the processes by which various kinds of decisions are made in universities. This leads us to suggest a number of propositions about the patterns likely to emerge and the nature of the strategy formation process in the university, which we relate to some preliminary data from an ongoing study of strategy formation during a century and a half at McGill University.

Strategies as Deliberate and Emergent

As indicated above, we focus most of our attention on strategies as realized, rather than on strategies as intended. Thus, for example, a university that puts a scientific slant on all of its activities could be described as pursuing a science strategy, just as one that repeatedly puts its resources into undergraduate programs at the expense of research can be said to pursue a strategy of favouring undergraduate teaching.

By our definition, an organization can have a realized strategy without having an intended one (or, more exactly, patterns can be evident even when *a priori* intentions were not). This means that strategies can exist without the efforts of central actors, that the formulation of strategies need not necessarily precede their implementation, and that strategies themselves need not necessarily be explicit (or, for that matter, even consciously recognized)—in other words, they can form rather than having to be formulated. As shown in Figure 1, the limiting case of this can be referred to as *emergent* strategy, to distinguish it from *deliberate* strategy (where *a priori* intentions were realized, more or less).

It may seem unconventional, indeed questionable, to use the word "strategy" for patterns in behavior, without considering intentions. We have two reasons for doing so. First, there has to be some way to identify strategies actually pursued. Can we call a stated intention that never evoked effort a strategy? Indeed, while few people would formally define strategy as we do, many in fact so use the term, for example when an executive infers the "strategy" of a competitor, or a newspaper does the same thing for a political leader. Second, there is

Figure 1
Various Types of Strategies

no such thing as a purely deliberate strategy, any more than there is a purely emergent one (by our definition). That is why we believe the same word ("strategy") should be used for patterns realized as well as intentions, so that the two may be compared under the same labels.

The difficulty in distinguishing between relatively deliberate and emergent strategies is to identify the intentions of various actors in a collective context. In a conventional automobile company, it may be sufficient to identify the intentions of the central administrators, who are able to impose their intentions on the rest of the organization. But in the university setting, the intentions of various actors and, more importantly, the extent to which these intentions are shared, must be understood before strategies can be labelled deliberate or emergent. Strategies may in fact be identified with a distinct group (say a department) or even an individual (such as a single professor), or they may form on a consensus basis (becoming collectively intended and then realized by the actions of many actors). A strategy can be partially deliberate and partially emergent, as when the broad outline of it is intended but the details emerge en route or when the process of strategy making is decided upon in a deliberate way (through the design of committee structures, hiring practices, etc.) while the content of specific strategies (what programs to offer, etc.) is allowed to emerge. Various forms of strategy identified in an ongoing research project of strategy formation in a variety of organizational settings are listed in Table 1, along a rough continuum from deliberate to emergent.

Of course, defining strategy as pattern or consistency in actions says nothing about the actions on which to focus. By this definition, universities can have strategies about everything. But the discovery that all the classrooms of a given university are painted beige would seem to pale in comparison to the discovery of a pattern in actions of favouring the sciences over the humanities. Clearly some patterns

Table 1

Summary Description of Types of Strategies

Type of Strategy	Major Features
Planned	precise intentions formulated and articulated by central leadership, backed up by formal controls to ensure surprise-free implementation in benign, controllable, or predictable environment; strategies are generally deliberate.
Entrepreneurial	intentions exist as the personal, unarticulated vision of a single leader, and so are adaptable to new opportunities; organization is under the personal control of the leader and located in a protected niche in the environment; strategies are relatively deliberate but can emerge inadvertently.
Ideological	intentions exist as a collective vision of all actors, in inspirational form and relatively immutable, controlled normatively through indoctrination and/or socialization; organization often proactive vis-à-vis environment; strategies rather deliberate.
Umbrella	leadership in partial control of organizational actions, defines strategic targets or boundaries within which other actors respond to own forces or to complex, unpredictable environment; strategies partly deliberate, partly emergent (or deliberately emergent).
Process	leadership controls process aspects of strategy (hiring, structure, etc.), leaving content aspects to other actors; strategies partly deliberate, partly emergent (and, again, deliberately emergent).
Disconnected	actors loosely coupled to rest of organization produce patterns in actions in absence of, or in direct contradiction to, central or common intentions; strategies are "organizationally" emergent whether or not they are deliberate for individual actors (can be departmental or personal strategies).
Consensus	through mutual adjustment, actors converge on patterns that become pervasive in absence of central

Table 1 (cont)

Summary Description of Types of Strategies

Type of Strategy	Major Features
	or common intentions; strategies may emerge through spontaneous convergence but may also be negotiated.
Imposed	the environment dictates patterns in actions either through direct imposition or through implicitly pre-empting or bounding organization choice; strategies organizationally emergent, although they may be internalized and made to appear deliberate.

From Mintzberg and Waters (1983)

deserve more attention than others. One danger, however, is to assume that actions are important simply because they come under the control of central administrators, or, more to the point in the university setting, that they are unimportant because they are controlled by individual professors. Indeed, the key area of strategy making in most organizations concerns the elaboration of the basic mission (the products or services offered to the public), and in universities, as we shall argue, this is significantly controlled by individual professors (e.g., in their choices of course materials and research projects). We believe other important areas of strategy include the inputs to the system (notably the choice and subsequent tenuring of academic staff, the determination of student enrollment, and the raising of external funds), the means to perform the mission (the construction of buildings and facilities, the purchase of research equipment etc.), the structure and forms of governance (design of the committee system, the hierachies, the regulations concerning promotion and tenure, etc.), and the various means of support for the mission (notably the elaboration of the university's support structure, from computers and libraries to alumni offices and printing facilities).

If strategies are taken to be patterns in actions, then to understand strategy formation, we must first consider how actions come about and then consider how these actions converge over time to create patterns. Accordingly, we take up next the issue of how decisions (which are intended to provoke actions or changes in actions) are made in univer-

sities, and then consider how they, and the actions that they evoke, form patterns, in order to draw conclusions about the nature of university strategies and the processes by which they are formed.

Decision-making in the University Setting

Were universities to formulate strategies from the conventional perspective, central administrators would develop detailed and integrated plans about the programs to be offered, the courses to be taught, the students to be admitted, the buildings to be built, and so on, much as automobile companies normally work out the design of their product lines and production facilities before they take action. In fact, automobile companies seem to resemble rather closely a model of organization that we call "machine bureaucracy" (Mintzberg, 1979), in which the overall mission—the mass production of particular products or services—lends itself to extensive rationalization, thereby rendering the operations a sequence of simple routine tasks requiring minimum skills. In this type of organization, the conventional approach to strategy making seems to make a good deal of sense. The organization needs tight integration of its actions (every part must fit together on the assembly line, marketing must promote the product produced by the factory, and so on), hence its central administrators, who can understand the operating tasks, must exercise tight central control of them. Too much discretion over individual actions (let alone global strategies) in the hands of the final actors would only encourage disintegration.

Universities stand in sharp contrast to this model of organization. For one thing, central administrators cannot possibly understand the wide array of skills and knowledge applied in the operations of their institutions, ranging from the most subtle interpretations of ancient Greek philosophy to the most sophisticated advances in contemporary nuclear physics. For another, and as a consequence of the first, in Weick's (1976) terms universities must be "loosely coupled" systems, in which the actions of one part need not be tightly integrated with the others (the philosopher and the physicist sharing little more than a faculty club and a system of grade point averages). Universities in fact resemble another model of organization, labelled "professional bureaucracy" (Mintzberg, 1979).

Because universities require specialized expertise, many of their decisions, and in particular some concerned with the definition of the basic elements of the mission (teaching and research), can only be made by individual professors. Others can in fact come under direct control of central administrators, for example, decisions concerned

with the financing of the university and with the provision of many of its support services. Many important decisions, however, can be made neither by individual professors nor by central administrators, but require rather the participation of various actors with different interests and expertise. Decisions in these cases emerge from complex collective and interactive processes. It is these interactive decisions that have engaged most of the interest of the decision making theorists who have studied universities. As illustrated in Figure 2, we examine in turn the decisions controlled by individual professionals, by central administrators, and by the collectivity, (the latter in terms of four models of decision making: collegial, political, garbage can, and rational analysis).

Decisions made by Professional Judgment

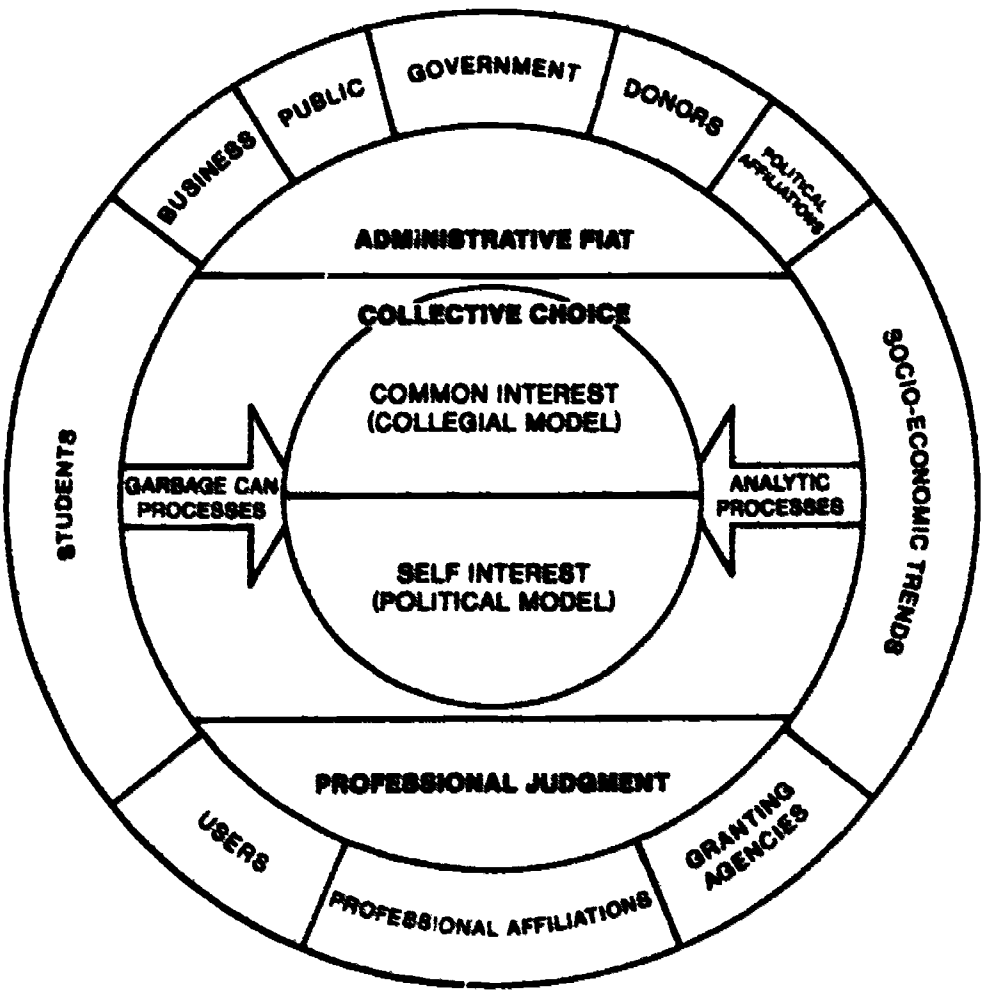
In the university setting, individual professors have a great deal of autonomy over research and teaching because of the difficulties of supervising or formalizing this work. Thus, many of the decisions that, in effect, detail the basic missions of the university come under the control of the individual professor:

> Presidents and their chief academic subordinates concede that much of the structure of academic policy is determined in the individual departments—realistically, often in the individual classroom. . . . Academic "Policy" is the accretion of hundreds of largely autonomous actions taken for different reasons, at different times, under different conditions, by different people. (Cohen and March, 1974, p. 104)

To understand this form of decentralization to the level of the individual professor, two essential concepts about universities (and professional bureaucracies in general) must be understood—pigeonholing and standardization of skills and knowledge.

The *pigeonholing* process divides the organization's activities into a series of standard components or programs that are applied to predetermined situations or contingencies, also standardized. As Weick has noted, "schools are in the business of building and maintaining categories" (1976, p. 8). Clients (i.e., students) entering the organization are categorized according to the set of available contingencies (or categorize themselves) and are then sent to the appropriate professional (or set of them in sequence) to execute the relevant programs. In other words, the object is to force all students into the existing slots. One student exhibits an aptitude for languages and so is directed into a degree in the Spanish or French department, another who wishes to

Figure 2
Three Levels of Decision-Making in the University.



become a manager selects the business school. Once that choice is made, the student is slotted into a series of courses, by which the pigeonholing process is extended to the level of the individual professor. In other words, each course is itself a standard program of the organization, evoked in response to a standardized stimulus (e.g., the introductory Policy course as a required part of the MBA program).

Note that by partitioning its tasks through pigeonholing, the university buffers or insulates its programs from one another and thereby minimizes the need for coordination across tasks and maximizes the discretion of those who carry out the tasks—in other words, it achieves both its loose coupling and its extensive decentralization concurrently. It also avoids a good deal of uncertainty, or at least confines it to the level of the individual program. Once the pigeonholes are defined, whatever variability that does remain is forced into the context of specific programs. Similarly, the domains over which individual professors retain control are defined by the pigeonholes to which they can be assigned. Simultaneously, it is the very system of pigeonholes that provides that control, for it buffers each professor from activities taking place in other pigeonholes.

Within the domain defined by pigeonholing, what, then, does an individual professor control? Clear examples, at least when courses are not taught in multiple sections, would seem to be teaching method and materials, course content, books, grades, etc.; likewise for research conducted on an individual basis, topic and methodology, etc. But while that control may seem to be absolute from the perspective of the organization, it is not so from the perspective of external influence.

This brings us to the *standardization of skills and knowledge*. The reason why individual professors are trusted to make their own decisions in the areas listed above is that their skills and knowledge have been standardized through long years of training. In a sense they have been programmed through their own doctoral or professional studies to approach their fields of endeavor in generally accepted ways, in terms of what they teach, and perhaps how, as well as in terms of how they carry out research, and perhaps on what. (In referring to this below as *professional* training and affiliation, in no way do we wish to restrict our comments to the formally professional fields, say medicine as opposed to English literature. As should be clear above, professors of English literature are hardly less free of the influence of their implicit profession than are professors of medicine of their official one.)

This may not encourage radical innovation—in Kuhn's (1970 terms, doctoral programs train people to do "normal science", not to foment "scientific revolutions"—but it does ensure that professors will act "responsibly" (given that "responsibly" means: in generally accepted

ways to a community of scholars). Thus professors choose books that tend to be well regarded by their colleagues, they design their courses in ways that reflect their own training, they adopt teaching methods acceptable in their disciplines (and sometimes even sanctioned by professional associations, as in certain practical work in medicine), they research subjects that can be funded by the granting agencies (which in turn are subject to professional influence), and they write articles in styles acceptable to the journals refereed by their peers.

Pushed to the limit, then, "academic freedom" can look like professional control—it may be explicit freedom from administrators, even from peers in other disciplines, but it is not implicit freedom from colleagues in other universities. Of course, tenured professors may feel some release from these pressures to conform, but by the time they receive tenure, most have become socialized into the predominant norms—that is probably how they gained tenure in the first place. It is hardly surprising, therefore, that they tend to become the main defenders of the norms. Thus we have titled this section decision by "professional judgment", the implication being that while judgment may be the mode of choice—professors being free in these choices from having to bargain with colleagues or to carry out formal analysis—this is informed judgment, mightily influenced by professional training and affiliation.

Other influences, of course, impinge on the choices of individual professors. Student feedback can modify classroom techniques, demographic factors influence class size that in turn may affect course offerings, corporations can influence research in a field such as engineering by virtue of providing sites for conducting enquiry, and so on. Overall, the general environment plays a significant role in the selection of topics of research and teaching, as individual professors respond to the concerns of the day—aerospace issues after Sputnik, women in management issues in the 1980's, and so on. But no force matches that of the implicit and explicit influence of professional affiliation.

Note that it is this standardization of skills and knowledge that enables the organization to achieve much of the coordination that remains to be effected across pigeonholes (indeed, to set up the whole system of pigeonholes in the first place). ". . . the system works because everyone knows everyone else knows roughly what is going on" (Meyer, quoted in Weick, 1976, p. 14). Thus a professor teaching physics to engineering students need not spend a great deal of time coordinating his or her efforts with another teaching calculus to the same students: the former has been trained to know what to expect in a standard calculus course. The necessary coordination between the two

can therefore be effected almost automatically, with hardly any need for personal contact. To use an old expression, universities, as professional bureaucracies, are organizat' ns designed to allow everyone to grind in his or her own mill. The label "bureaucracy" has been used expressly because of this emphasis on standardization (as well as pigeonholing), which creates a certain stability in procedure. To repeat, these are not organizations designed to innovate so much as to apply and elaborate complex standards. To quote Herbert Simon:

> The pleasure that the good professional experiences in his work is not simply a pleasure in handling difficult matters; it is a pleasure in using skillfully a well-stocked kit of well-designed tools to handle problems that are comprehensible in their deep structure but unfamiliar in their detail. (1977, p. 98)

Decisions made by Administrative Fiat

Expertise, professional autonomy, and coordination through standardized skills and knowledge (largely imported to the organization via professional training and norms), all facilitated by the pigeonholing process, sharply circumscribe the capacity of central administrators to manage the university's professional staff in the ways of conventional bureaucracy—through direct supervision, namely the issuing of direct orders, and through the designation of standards within the organization (e.g., rules, job descriptions, policies). Even the designation of output or performance standards is discouraged by the intractible problem of operationalizing the goals of universities.

To carry this point further, it is in fact the academics who control much of the administration. This they do by staffing the committees and task forces that make many of the key decisions, or by suspending their academic duties to fill administrative posts for a period of time. In other words, the academic staff controls much of the administration by virtue of being seconded to administrative duties for either a few hours or a few years at a time.

While many of the administrative decisions are subjected to collective choice—involving various academics as well as administrators—there are certain ones that fall into the realm of what we are calling administrative fiat. In other words, they are the exclusive prerogatives of the senior administration, under which term we include the board of regents (or equivalent), the president or principal of the university (i.e., the chief executive officer), as well as the senior echelon of administrators who surround that person. Administrative fiat is meant to describe the situation with respect to other members of the university community; it is not meant to suggest that administrators do not vie or bargain

with each other over choices. (Although we refer to senior administrators in relation to the whole university, many of these points would also apply to deans in relation to their schools or faculties.)

The types of decisions that fall into this realm are rather circumscribed. Childers (1981) for example shows that decisions concerning the missions of teaching and research as well as many stages of personnel decisions fall outside this realm. But others do fall within it. Childers (1981) identifies these as "institutional management" decisions. For example, many financial decisions are made exclusively at this level, although the question of which specific ones varies from one university to another. In general, decisions to invest in stocks (or disinvest in South African ones), buy and sell property, and embark on fund raising campaigns, tend to be taken by central administrators in relative isolation from the remaining members of the organization.

A number of external influencers affect these finance decisions, especially those who supply funds to the university—the government in the case of public universities (Gross, 1968) and individual donors in the case of private ones. For example, government budget cuts stimulate decisions about budget reallocation and cost cutting, many of which tend to focus on the central administrative level. By virtue of their donations, private individuals can, for example, evoke administrative decisions about the location of new buildings, the establishment of chaired professorships, and the eligibility requirements of student scholarships. The very fact that these external influencers interact with the central administrators, whom they view as responsible for the activities of the organization, gives the latter a certain power in these specific spheres of decision making.

Because many of the support services of the university are organized in a conventional "top-down" hierarchy—machine bureaucratic in nature—they also tend to fall under the control of the central administration. These include, for example, alumni and public relations, athletics and archives, accounting and payroll, building services and physical plant, and printing and translation services. The specific services may be executed well down in the hierarchy, but decisions concerning their basic orientations—that is, the "strategic" decisions—tend to be controlled well up in the administration. However power over certain other support services more critical to academic matters—e.g., libraries or computers—tend to fall into the realm of collective decision making, where the central administrators join the academics in the making of choices.

Central administrators may have formal authority (power of veto) over administrative appointments, promotions, and tenure decisions.

In many cases, however, this formal authority is not exercised (Cohen and March, 1974). Even when it is, such decisions have typically been initiated and filtered by various review committees in the collective process before they reach the administrative level. Central administrators may also play a role in determining the procedures by which the collective process functions—what committees exist, who gets nominated to them, and so on. It is the administrators, after all, who have the time to devote to administration. This role can give skillful administrators considerable influence, however indirect, over the strategies developed by others. We shall return to this point when we discuss collective decision making.

In addition, in times of crisis, administrators may acquire more extensive powers in order to deal with the pressing problems of the moment. In other words, decisions that were collective can move into the realm of administrative fiat. For example, the 1964 crisis at Berkley caused the Board to institute new disciplinary regulations, withdraw previously delegated power, and strengthen the hand of the administration (Smelser, 1973). Such centralization is to be expected in the event of a perceived crisis (Hermann, 1963; Smart & Vertinsky, 1977), for two reasons. One is that time pressure requires speedy action necessitating centralized directive. A second is, when faced with uncertainty, others tend to defer to the central leadership, granting it more authority to come up with the correct response to reduce the uncertainty (Billings, Milburn & Schaalman, 1980). We suspect, however, that once the immediate crisis passes, typically decision making becomes decentralized once again.

A mixture of judgmental and analytic processes may be used to make decisions at the central administration level. It is interesting to note that Cohen and March (1974), in their study of presidential power, found that universities tended to have detailed, explicit plans in precisely those areas in which central administrations had the most influence: capital physical planning and fiscal planning dealing with income uncertainties, cash-flow problems, and short-term investment. It is notable that these plans generally avoided academic issues. The "academic plans" in fact compiled were essentially "the natural consequence of asking each department to prepare a plan and then binding all the documents together without editing" (Cohen & March, 1976). In other words, the central administration did not participate except to request the plan in the first place. Cohen, writing about the French national planning experience suggests that national "planning" is either political or decorative (1977, xv). Several authors (e.g., Porter, Zemsky & Oedel, 1979; Richardson & Gardner, 1983) have made a

similar point and the Cohen and March (1976) study suggests that much central university planning in the past has, in fact, been "decorative"—aimed at external public relations rather than internal action.

Decisions made by Collective Choice

Many decisions in universities are determined neither by administrators nor by sole academics, but evolve out of a variety of interactive processes that occur both within and between departments, and that involve various mixtures of academics as well as administrators from a variety of levels. In our opinion among the most important of these decisions are ones related to the definition, creation, design, and discontinuation of pigeonholes, that is, programs, departments, research centres, and at a lower level, individual courses. Other important decisions that fall into the realm of collective choice include promotion, tenure, and hiring, in some cases, budgeting, and establishing and designing the interactive procedures themselves.

Interactive processes within a department may involve members of the same discipline, as in the case of content decisions concerning a specific degree program (e.g., Master in Social Work) or even a single course that is team-taught. Other interactive processes cross departments, bringing members of different disciplines together to decide on issues ranging from the selection of computing equipment to the design of tenure regulations (or the granting of tenure in a single case). Formal groups abound in these interactive processes, comprising ad hoc task forces as well as standing commitees, which typically include academic policy committees (at departmental and university levels) and senate, usually the highest ranking academic body of the university.

The interactive processes can involve both "vertical" and "horizontal" relationships. Within a given committee, individuals interact horizontally with one another to produce outcomes by mutual adjustment. But this committee will itself interact vertically with other levels in the hierarchy that may have the direct power to change or veto their outcomes, or which may dictate *a priori* guidelines and boundaries within which the deliberations of the committee must fall. These interactions among individuals and groups can be enormously complex and the distinctions between horizontal and vertical interaction can become blurred. For example, "A single individual—faculty member or administrator—will frequently find himself involved in a particular decision at three or more points through membership of several overlapping committees" (Ladd, 1970, p. 206).

Phases of Interactive Decision Making. To help understand the roles that various individuals and groups may play in influencing decisions,

we can break down the decision making process into three major phases (after Mintzberg, Raisinghani & Théorêt, 1976)—identification, development, and selection (which themselves need not proceed in sequential order, but rather tend to involve complex cycles and interruptions).

The *identification* phase involves the recognition of the need to make a decision, and diagnosis of the situation. Many decisions, of course, arise on a routine basis (as in the case of promotion decisions), and so need no special impetus for identification. But changes to the organization or to its established procedures (or pigeonholes) do need identification, and this tends to happen more by individual initiative than by collective interaction. Given the complexity of decision making in universities, and the rigidities that result from the pigeonholding process, change is difficult to imagine without the individual "champion" or "sponsor," who initiates it in the first place and or at least pushes it through the complex interactive process to its completion.

> Strong, serious leadership is virtually mandatory for the success of any serious effort at educational reform . . . to try to counter the pressures favouring the *status quo* by creating or maintaining an atmosphere of receptivity to change. (Ladd, 1970, p. 205-206)

Obviously, different individuals will champion different issues depending on their own particular interests. We believe that professors are most likely to champion the creation of new pigeonholes, since these are closest to their own interests. Administrators, on the other hand, are more likely to champion changes in resource allocation procedures, or perhaps promotion and tenure regulations, although they may sometimes promote program additions when they perceive gaps in the services offered by their institution. Students also act as champions on occasion, but they are most likely to promote issues related to program flexibility or student participation in decision making.

Issues that lack champions may, in fact, be avoided by the organization. Who, for example, relishes sticking his or her neck out to champion the discontinuation of a pigeonhole (program, faculty, research centre, etc.)? While the resources released by such a decision could be spent elsewhere, no one professional individual or interest group is likely to receive sufficient benefit to justify such championship, except in special circumstances. Financial pressure is likely to be felt more directly by the administrators, but there may be little incentive for them to attempt to initiate the closure of pigeonholes, at least

when times are good. Resistance will be violent from those threatened, while support from other groups is likely to be weak*

The second stage in decision making, the *development* process, involves the search for and design of alternatives and solutions. In some cases, champions perform this function, proposing rather detailed solutions. In others, when only the need for decision has been identified, or when a champion is attempting to solicit ideas or at least generate commitment for his proposal, the issue will tend to be developed by ad hoc groups, or task forces. Obviously the members of these groups can have substantial influence on the decisions or recommendations put forward, and, indeed, often become the collective champions of the proposals they produce. Administrators may also have substantial influence at this point, through their ability to decide who gets to participate in the task forces, what the mandates of these task forces will be, and what procedures they will use. As noted earlier, the administrators are the ones with time for administration, and that includes in good degree the design of the interactive procedures as well as representation in them.

The *selection* process involves the screening, evaluation, choice, and authorization of alternatives and solutions. In most universities, this involves several layers of standing committees and individuals, with power of veto or the ability to return issues to lower levels for further development. These standing committees will, however, rarely get involved in development or initiation work directly (although their members might, of course).

The structures involved in this stage of decision making in universities are well known for being cumbersome and slow, especially in large institutions. For example, a proposal for a Ph.D. program in management at McGill University was first worked out by an ad hoc committee and then was approved within the Faculty of Management by its Graduate Program Committee, Academic Committee, and Faculty Council; from there it went to the Executive Committee and the Council of the Faculty of Graduate Studies; then it moved on to the Academic Policy Committee of the Senate of the University and then to the full Senate itself; from there it went to the University Programs Committee (composed of academics of various universities) of the Quebec government Ministry of Education and then into the Ministry itself, and then back and forth between these bodies and the university administration a few more times until it was finally approved (as a joint program of four universities).

This complexity provides a strong incentive for individuals and groups to attempt to satisfy their needs locally and informally, without embarking on the time-consuming championship and justification pro-

cess necessary to obtain formal recognition. In other words, the incentive is to try to work within existing pigeonholes, even to adapt them in a clandestine manner when change is desired.

Thus, to simplify somewhat, in the case of non-routine decisions, we may roughly associate the *identification* of the decision process with individual professors and administrators, the *development* of solutions with ad hoc groups (task forces) interacting "horizontally", and the *selection* of alternatives and solutions with a "vertical" hierarchy of permanent groups (standing committees) as well as administrators and (in public universities), perhaps, government representatives as well.

It is also, perhaps, important to note that individual professors need not participate in interactive processes to any significant extent. They may leave this to their more active colleagues (at their own risk, of course: the dilemma of the academic who simply wishes to do his or her research is that he or she leaves collective choices, some concerning that research, to those who, by virtue of choosing to do administration, may be less sympathetic to research). Many professors, in fact, champion an issue hardly more than once in their career, in effect working to establish a new research center or degree program (or even a course) and then settling down to practice their own standardized skills within it. The individual professional, as we noted in the Simon passage quoted earlier, gets his or her pleasure from working within pigeonholes, not in designing them (in other words, doing operating rather than administrative work). Nevertheless, almost everyone has to serve on one standing committee or another—for the sake of maintaining professional control if none other—and all occasionally get bludgeoned into participation on a task force or two. Administrators, on the other hand, virtually always participate in collective decisions—especially those that cut across departmental lines: that indeed, is a good part of their jobs.

Models of Interactive Decision Making. How do the individuals participating in these interactive processes in fact perceive and act out their roles. Universities have traditionally been associated with a *collegiality* model, where, in the view of some writers, decisions are made by a "community of individuals and groups, all of whom may have different roles and specialities, but who share common goals and objectives for the organization" (Taylor, 1983, p. 18). This is reflected in the system of governance that decentralizes decision making and provides opportunities for individual academics to intervene in the process. Although different interest groups exist, differences between them are considered to be overridden by the fundamental agreement concerning the overall purpose of the institution. *Common interest* is the guiding force in this view of collegiality, and decision making is, therefore, by

consensus (Taylor, 1983). Obviously, in this extreme form, the model presupposes an unrealistic level of harmony and consensus. As a result, many writers (see, for example, Baldridge, 1971; Baldridge, Curtis, Ecker & Riley, 1978) have dismissed collegiality on the grounds that it is an idealistic norm rather than an accurate description of university processes.

These authors instead propose a *political* model, in which the irreconcilable differences of interest groups cannot be accommodated by consensus around common goals. Participants thus seek to serve their *self interest*, and political factors become instrumental in determining decision outcomes (Bucher 1970; Ladd, 1970; Baldridge, 1971; Baldridge *et al.* 1978). Clearly, while this model has much to offer, it too seems overstated: common interest can no more be dismissed than can self interest.

Proponents of the political model have appeared to assume that the existence of fragmented interest groups *alone* gives rise to politics. In general, however, organization theorists have argued that a number of other conditions have to be met before political behavior can occur. In addition to the presence of conflicting goals, interest groups must be interdependent, resources scarce, and issues critical (see, for example, Pettigrew, 1973 and Pfeffer, 1981). To take an example: in times of financial constraint, the English Department requests from its dean additional resources to appoint five academics to staff a new area of modern literary criticism. One might expect other departments in the Arts Faculty to use whatever power is at their disposal to ensure that the dean does not accept the proposal. This is not simply because this proposal is different from that of Economics, which wants to expand undergraduate enrollment, or of Political Science, which wants to develop a new program in third world studies. Rather it is because the proposal, if approved, will affect the funding of the other departments, possibly preventing them from realizing their own intentions and possibly even taking resources away from existing activities. Political behavior occurs because *all* the conditions have been met—conflicting goals, interdependence, scarcity, and criticality. If the request had been made when funds were plentiful, it would probably have evoked a collegial response, with interested members of the English Department debating the benefits of including modern literary criticism in their programs, followed by a recommendation to the dean that may well have passed up the hierarchy without incurring political opposition from other departments.

Clearly, neither common interest nor self interest will dominate decision processes all the time. Some combination is naturally to be expected. There may be commitment to certain common goals, but

conflict over how they should be achieved; alternatively, consensus can sometimes exist among individuals who wish to pursue different goals—Democrats do, after all, vote with Republicans on many issues in the U.S. Congress.

Decision making is more likely to be political when declining resources intensify competition (Hardy, 1982, forthcoming) or when dramatic shifts in the distribution of resources threaten the power positions of particular groups (Pettigrew, 1973; Mumford & Pettigrew, 1975). Collegiality is more likely when there is a commonly accepted ideology or mission, as tends to happen in small, prestigious units, or departments with charismatic leaders, or when there is sufficient slack to accommodate disparate goals. And even when two factions fight politically at one level, other more objective observers may exist at another level who can evaluate cases on their merits. In other words, except in the most polarized situations, politics and some form of collegiality almost inevitably co-exist (Childer, 1981).

Previous writers appear to have dismissed the possibility of collegiality and politics co-existing because they have tended to assume that each produces totally different kinds of behavior.

> If we believe the system is political, then we form coalitions and exert pressure on decision-makers accordingly. If we think the situation is collegial then we try to persuade people and appeal to reason. (Baldridge et al, 1978, p. 28)

This is misleading because the distinction between the two lies not so much in the behavior produced as in the motivation behind the behavior. Thus the very same behavior can be used for the common interest or for self-interest. For example, a professor may by-pass the dean and approach the president in an attempt to set up a robotics centre because he believes this will be the quickest way to set up a much needed institute that will enhance the reputation of the university and so win it research grants, or because he knows the dean will oppose the idea, thereby denying his one chance to become the leader of a prestigious research institute. Likewise, information can be hidden in the common interest (e.g., in tenure decisions to ensure objective choices: see Moynihan, 1980) or in self interest (e.g., to avoid personal embarrassment).

In other words, judging by behavior alone, it is difficult to distinguish collegiality from politics. Moreover behavior that seems clearly to be the one can sometimes prove to be the other. Thus, successful politics often requires a collegial posture (Pfeffer, 1979). One must cloak self interest in the mantle of the common good. By the same token, changes

that will ultimately benefit the institution at large may sometimes evoke conflict between individuals who have different conceptions of the common good. Furthermore, as we have discussed, universities are bureaucratic in their standardization of skills and knowledge and in their pigeonholing; effecting changes in these requires champions who are able to counter the forces of the status quo (Mintzberg, 1979: pp. 299-230, 446-452). These champions may have to resort to the use of power to effect change regardless whether they are promoting the common interest or their own self-interest.

Thus, we distinguish collegiality and politics on the basis of motivation rather than behavior. The former refers to actions which are used to push through decisions that are genuinely considered beneficial for the institution, the latter refers to actions designed to defeat opponents in the pursuit of self-interest (MacMillan, 1978, p. 8). (Note that the definition of politics in terms self-interest rather than common interest has parallels with other views that associate politics with the illegitimate use of power. See, for example, Mintzberg, 1983, chap. 13.)

A third model that has been used to explain decision making in universities, described as "organized anarchies", is the *garbage can*. Here decision making is characterized by "collections of choices looking for problems, issues and feelings looking for decision situations in which they may be aired, solutions looking for issues to which they might be an answer, and decision makers looking for work" (Cohen, March, & Olsen, 1972, p. 1; see also Cohen & March, 1974 and March & Olsen, 1976). Behavior, is, in other words, non-purposive and often random, because goals are unclear and the means to achieve them problematic. Furthermore participation is fluid because of the "cost" of time and energy. Decisions are not systematically resolved; instead, solutions attach themselves randomly to problems. Even proponents of the political model have pointed out that although involvement in decision making is sometimes politically motivated, for much of the time it is an uninteresting, unrewarding process (Baldridge *et al*, 1978). Thus, in place of the common interest of the collegial model and the self interest of the political model, the garbage can model offers an active kind of *uninterest*.

The important question is not whether garbage can processes exist—we have all experienced them—but whether they matter. Do they apply to key issues or only incidental ones? And, even if they appear in key issues, do they represent little more than noise in a system of forces that ultimately balance themselves out and proceed on some course determined by other factors?

Where decisions are important, participation may cease to be fluid because the cost of not participating would outweigh the cost of doing

so. Some decisions are important only to individuals (their champions), and so, while their colleagues may play in the garbage can, they play seriously. They have their solution, and know exactly to which issue they wish it to apply. Other decisions are important to many people, and so all play seriously. Of course, some decisions are not that significant to anyone, but these are usually intrinsically peripheral, as when the English Department discussed above makes a request for resources to fund one additional graduate teaching assistantship. Such a decision is probably of insufficient importance to provoke a major collegial debate or political resistance but it could well end up in the garbage can. There is always someone with free time ("looking for work") willing to challenge a proposal for the sake of so doing, or perhaps to stimulate some academic debate (to "air issues or feelings"), or simply to see if valid arguments underlie the proposal. Thus, like common interest and self interest, uninterest neither dominates decision processes nor is absent from them. In our view, a combination of collegiality and political will most influence decision making processes that have strategic implications for many actors, while the garbage can model may help describe decision processes that are peripheral, to some actors at least.

Finally, *analysis*, or the "rational actor" (Allison, 1971), may be considered as a fourth model of decision making. Here calculation is used to select the best alternative, or at least to distinguish acceptable from unacceptable proposals. Such an approach seems consistent with machine bureaucracy, where central administrators make strategic choices unilaterally, typically in the presence of considerable "hard" data. Accordingly, conventional wisdom would suggest that we would expect to find the use of this model in universities only in the realm of administrative fiat, and that we should not look for it at the collective level of decision making.

In fact, we wish to argue that analysis figures prominently in both collegial and political processes, as well as in garbage can ones, stimulated by the existence of ambigious goals and multiple actors. Under ambiguity, there is more to be discovered by analysis, and there are more ways in which issues can be logically structured. And with multiple actors, there is more reason for each to attempt to structure issues in his or her own way in order to direct the thinking of others through the use of rational argument:

> We predict that almost all disputes in the organization will be defined as problems in analysis, that the initial reaction to conflict will be problem-solving and persuasion, that such reactions will persist even when they appear to be inappropriate, that *there will*

be a greater explicit emphasis on common goals where they do not exist than where they do, and that bargaining (when it occurs) will frequently be concealed within an analytic framework. (March and Simon, 1958, p. 131, emphasis added)

In machine bureaucracy, analysis is likely to the exclusive tool of top and middle management, supported by an elaborate technostructure of staff experts, and directed at control and coordination or else at strategic decisions made for the organization as a whole. It may not be greatly overstated to describe analysis here as top-down, unitary, and aimed directly at producing coordinated action. In the professional bureaucracy, in contrast, rational analysis is much more likely to be fragmented, harnessed by and subordinated to the interactive processes through which so many decisions are made. There may be relatively few staff experts, but individual professionals and groups will undertake their own analyses of issues that concern them in order to influence decisions.

Rational analysis is necessary in universities for a number of reasons. The interactive process itself forces deliberations to be structured and requires that arguments be made explicit for purposes of communication. Disagreements concerning different intuitions are likely to lead to the collection of more information when issues can be verified empirically. Moreover, the hierarchy of selection (particularly authorization) encourages the development of analytic support for proposals, especially when the champion may be denied representation at higher levels. Everything must be made as explicit and rationally persuasive as possible. Also, senior administrators, who often lack direct knowledge about what is going on in many areas of the organization—i.e., lack the ability to develop intuitive perceptions—may request more "hard" analytic information on which to support or authorize projects.

Of course, when goals and technology are ambiguous, analytic information inevitably contains logical flaws that can be easily traced by those who are threatened by the information. Detailed responses, also expressed in rationalistic terms (i.e., counter analyses) will therefore often be generated in an attempt to redress the balance. Finally, the democratic nature of universities means that many decisions require the agreement of large numbers of people who are not particularly committed one way or the other *a priori*. These people must be convinced. Of course, the fact that university professors are frequently by nature and experience superb analysts practised in the craft of rational argumentation through their research and teaching also, no doubt, contributes to the tendency to react to issues analytically.

Porter *et al.* (1979) provide an interesting case study of this phenomenon. A tenure planning model developed by a planning group reporting to central administration was vigorously "counter-analyzed" by a threatened faculty—and then counter-counter-analyzed by the planners. Several iterations took place in full view of the Council of Deans and of top administrators before the issue was resolved by a compromise, which at least in this case was largely in favour of the planners, although it incorporated some of the faculty's concerns. The point is, however, that even when analysis is initiated by central administrations, it often becomes inextricably linked with the interactive processes of decision making.

In the collegial situation, in which people are assumed to be working in a cooperative manner, analysis will be used mainly to develop understanding, to achieve consensus, to aid communication, and to defend the legitimate interests of the entire group. Analysis may also be used within the group to defend different perceptions of organizational interests and to integrate individual projects into these perceptions.

In the political situation, where self interest dominates, analyses of all kinds are likely to proliferate, directed at persuading the uncommitted. Competition for resources under tight constraints also means that analyses are more likely to be counter-analyzed by affected groups. One might, of course, ask what can be the overall value to the organization of analyses that are likely to contain considerable bias. It can be suggested (as Lindblom and Cohen [1979] do, for example) that the benefit of analysis in political situations stems from the picking of holes in the argument of one side by the other: the truth is more likely to emerge and the issue most likely to be understood when opposing analyses, counter-analyses, counter-counter-analyses, etc., are available for the scrutiny of the uncommitted majority.

However, in extreme cases, politics can preclude the effectiveness of analysis too. When an issue is important enough and concerns them directly, the majority of actors may become committed early, and polarization may prevent analysis from being particularly influential unless its conclusions are so overwhelming as to be difficult to refute. In the ideal situation, concerned but uncommitted participants use opposing analyses to judge the different positions with respect to the common good and that determines the outcome (i.e., a remnant of collegiality remains despite the politics).

Analysis will even be used in a garbage can situation. It will play the role of focussing attention on issues, problems and solutions. The committee member, described earlier, who in "looking for work" challenges proposals for the joy of academic debate, in fact encourages

analysis and may thereby play the functional role of forcing out ill-conceived proposals. However, because participation is haphazard and interest low under this model, analyses may tend to go unopposed and errors and biasses may remain undetected. Thus, analysis under the garbage can will tend to be of relatively low quality. But, as we noted earlier, this may tend to apply to relatively unimportant decisions.

To summarize, analysis in universities serves more as a means of exerting influence in interactions rather than of resolving issues of its own. It may be used to aid personal understanding for individuals or groups, but it also serves as a means of communication and attention focussing, as a means of legitimizing decisions, as a means of consensus-building, and perhaps most importantly as a means of persuasion. In this way, analysis helps to ensure that what does get decided in fact has some justification in principle.

To conclude, as we showed in Figure 2, we believe the collective sphere of decision making is characterized by combined collegial and political processes, with garbage can influences encouraging a kind of haphazardness on one side due to cognitive and cost limitations (at least for some, less important decisions), and competing analytical influences on the other side encouraging a certain logic or formal rationality (serving as an invisible hand to keep the lid on the garbage can, so to speak!).

Strategies as Patterns Emerging from Decision Processes

In the first section of this paper we described strategies as patterns in decisions and actions, while in the second section, we described how decisions (which commit the system to actions) come to be made in the university setting. In this concluding section, we draw our findings from the first two sections together in terms of a number of propositions about strategies and their formation as a result of the decision making processes in the university setting.

We begin with general propositions about the system at large, and then we focus on the strategies generated at the three levels of decision making—professional judgment, administrative fiat, and collective choice—before closing with general propositions and some evidence about the stability of strategies in universities.

General Propositions

1. *Many different actors are involved in the strategy formation process in universities.* As soon as we relax the conventional assump-

tions of strategies as deliberate and determined centrally, it becomes evident, first, that strategies, as patterns, exist in universities, and, second, that many other actors participate in their formation. If strategies are patterns, then strategists are people responsible for creating or even reinforcing patterns. And, given the decentralization and loose coupling of university structures, many different people become involved in this process, ranging from the professor who sets a precedent (e.g., introduces a new course) to the administrator who reinforces the resulting pattern through the allocation of financial resources.

2. *Some of the university's strategies pertain to the whole, others to particular parts.* Some patterns cut across the entire organization, particularly ones that pertain to facilities, support services, or certain administrative processes (e.g., building campaigns, the provision of library services or athletic facilities, promotion and tenure regulations), while others pertain to particular parts, whether departments (e.g., program design, student selection) or individual professors (e.g., course design, research projects). Thus, it is as reasonable to describe Professor Bess' strategy of studying higher education as it is to talk about NYU's strategy of sustaining its status as a private institution. For while NYU may exhibit that central strategy in that area, in the area of research content, the strategy of NYU is the sum total of the strategies of all the professors who carry out research in that institutions. Thus:

3. *We should expect to find a good deal of fragmentation in the strategies pursued by universities.* The leaders of Volkswagenwerk may decide what models they wish to produce and then develop a number of auxiliary strategies concerning sourcing, manufacturing, marketing, servicing, and so on, to support the basic product strategies. No such integration is to be expected in the university setting. Forces do exist to tie activities together (as we shall discuss later), but many of the strategies are relatively unrelated to each other—hardly even loosely coupled—so that individual ones can be changed without upsetting the system. Earlier, in Table 1, we introduced these as *disconnected* strategies. This is most clear in the case of pigeonholing, which allows the strategy of one department or even one professor to develop quite free of the strategies of all the others. As Riesman, Gusfield, and Gamson note:

> Looked at in comparative and historical perspective, American higher education is astonishingly pluralistic. No central Ministry of Culture or Education determines who is to teach what to whom at what level. Neither the Federal Trade Commission nor the

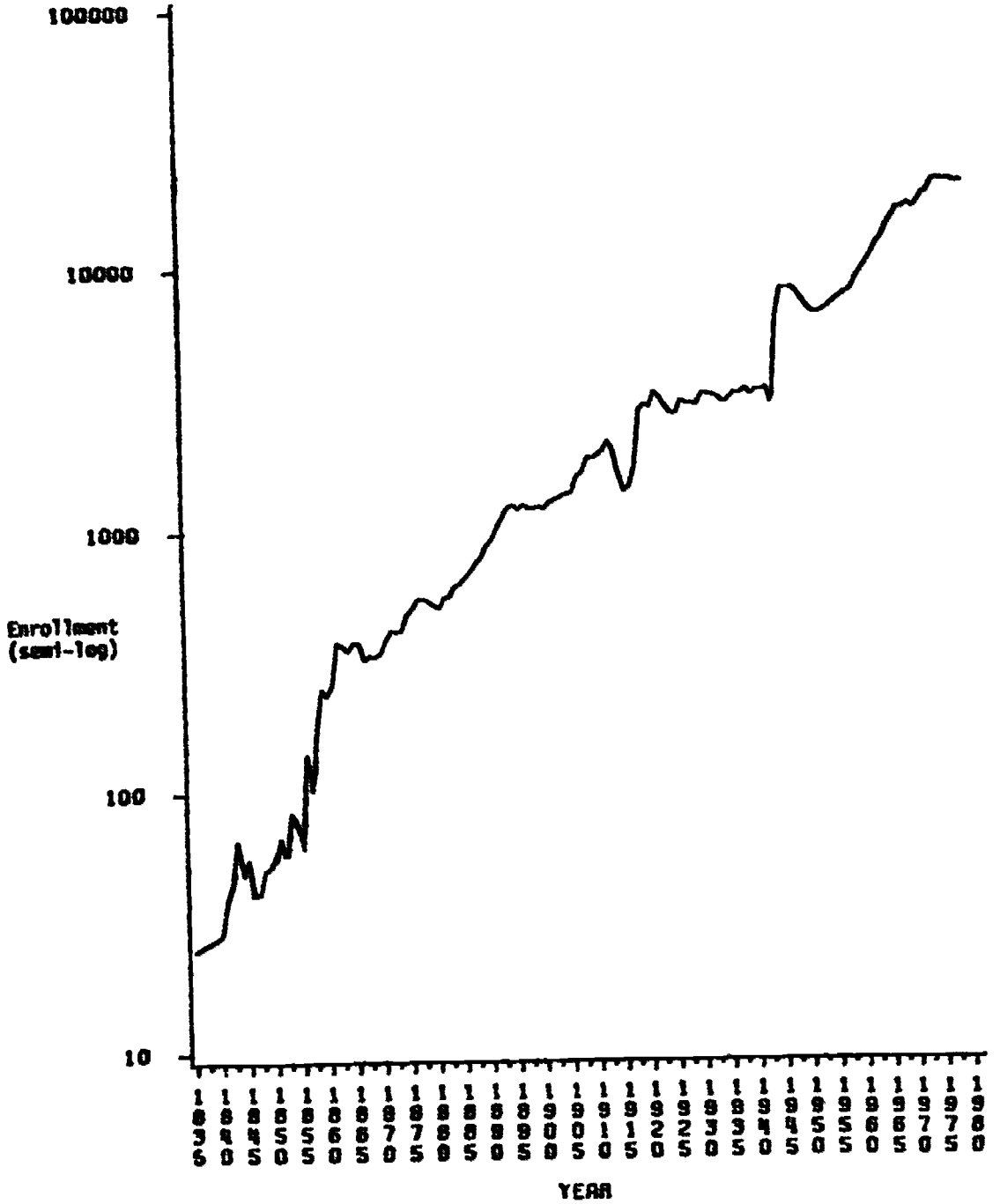
> regional accrediting agencies police the way in which American colleges advertise themselves (including their use of such terms as "college" and "university"). (1975, p. 250)

But the same is true even within given universities. As Riesman alone notes in another publication, "I think one could argue that the publicized overall reforms in Harvard College are less important for the fate of students than the subtle changes in the microclimates of departments which are themselves sometimes mini-universities with many subclimates" (in Lipsett and Riesman, 1975, p. 285).

We have been tracking strategies, as patterns in streams of behaviors, at McGill University across a century and a half of its history. While many of the mission strategies have left little or no systematic traces (teaching methods, specific research projects, course content), at the aggregate levels such traces are available, and revealing. Figure 3, for example, shows the enrollment for the entire university as well as for some of its key faculties over time. (Logarithms of the data are used to emphasize rates of change rather than absolute levels, and to enable us to display the data, which ranges widely over the course of a hundred and fifty years, comprehensively.) At least two distinctly different strategies are indicated by this graph. One is open enrollment, where the faculty sets minimum standards and then accepts all applicants. This can be seen particularly in the Faculty of Arts, where wide swings are evident. The other is limited enrollment, where the faculty sets a limit on how many students it is willing to accept. This is most clear in medicine, which shows stable enrollment in the late 1860s and 1870s and particularly from the 1920s to the 1960s (except for a brief dip during World War II). Of course, open enrollment is more compatible with a faculty such as Arts, which itself is an agglomeration of all kinds of disciplines. In contrast, limited enrollment, which would seem to have to be far more deliberate in nature, is compatible with a faculty that focusses on one basic degree program. In this regard, it is interesting that Engineering, composed of a set of majors within a central degree program (B. Eng. in Civil, Mechanical, Electrical, etc.) shifted back and forth between the two strategies, depending largely on student demand.

4. *Control of specific strategies may reside with individual professors, within the administrative structure, or in the collectivity.* In other words, decision making at each of the levels we have discussed can lead to important patterns of action, namely strategies. While the senior administrators may decide on salary issues, and thereby create patterns, and the individual member of faculty may establish a pattern of researching institutions of higher learning, the collectivity may set a

Figure 3:
Enrollment at McGill University



pattern in the making of promotion and tenure decisions. Of course, some areas can fall under the control of more than one level. In the case of funding, for example, central administrators seek support from private donors, as might the members of particular departments, while individual professors seek the financial support of granting agencies. Below, we discuss the patterns that appear out of decision making in each of three levels.

Propositions about Professional Judgment

5. *The mission strategies of the university are largely aggregates of the personal strategies pursued by individual professors, based on professional judgment.* As noted, each professor makes many of his or her own decisions concerning product and market: decisions about course content, teaching method, research topic, and research methodology. These decisions in turn create patterns (courses are repeated year after year, research projects carry on, etc.), leading to what can be called the *personal* strategies of individual professors (see Table 1). From the individual's point of view, such strategies are often likely to be deliberate (i.e., the patterns were intended), although from the organization's perspective, they might very well be emergent (i.e., the system at large, whether that means its central administrators or the collectivity, did not necessarily intend that they teach and research in those ways). It is, of course, the pigeonholing process that allows these personal product/market strategies to develop. But these strategies are not chosen at random:

6. *Many of the personal strategies are influenced by, indeed often imported through, professional training and affiliation.* Sometimes professional bodies dictate specific orientations, as when the American Association of Collegiate Schools of Business introduced new criteria for accrediting business schools several years ago that had the effect of introducing new theoretical and quantitative material to specific courses. In the terms introduced earlier, this can be called an *imposed* strategy. More often, the influence is less direct. The fact that a certain Roger Bennett teaches marketing in McGill University's MBA program by the case method is hardly independent of the fact that he was so trained in Harvard's MBA and DBA programs. And as professional norms change, so too do the strategies: if Bennett's notion that the "marketing concept" has outlived its usefulness catches hold among his marketing colleagues (a process Bennett encourages through his publications in professional journals and his speeches at professional meetings), then the nature of marketing courses all over North America will change. We can say that a new *consensus* strategy will emerge,

but across rather than within universities (i.e., in marketing departments in different universities, but not beyond marketing even to accounting). Thus Riesman has "described American higher education as a snakelike procession in which the bulk of institutions followed what they took to be the models set by the most prestigious leaders . . ." (Riesman, Gusfield, and Gamson, 1975, p.254). The result of all this is that:

7. To a great extent, many important strategies associated with mission cut across universities. Because of the standardization of skills and the sharing of norms, it becomes more accurate to talk of a strategy for teaching marketing than a strategy for teaching at McGill. That is, there is probably far greater consistency among marketing professors all over the world than there is among Bennett's neighbors in the Faculty of Management at McGill University (let alone his colleagues in physics, philosophy, and pathology elsewhere at McGill). This is the result of the fact that the range of professional influences is far greater than the more focussed institutional influences, at least in the sphere of the provision of the basic mission.

Propositions about Administrative Fiat

8. In the realm of administrative fiat, central administrators may impose deliberate strategies on the entire organization. Where the administrators have definitive control—portfolio investment, property management, some of the support services—patterns of strategies are not only likely to exist, but to be rather deliberate in nature. In the terminology of Table 1, they may be formally planned (i.e., articulated) or they may derive from the personal vision of a leader, which we labelled *entrepreneurial*. The latter appears to show up especially in the formative years of a university, or at least when its ideological foundations were established by a strong leader (Clark, 1970, 1972). Thus, in the 1890s, McGill's most influential principal took advantage of the retirement of the bursar to restructure the university's administrative offices and bring in professionally trained officials for the first time.

9. In addition, central administrators seek to exert influence in other spheres through the use of umbrella and process strategies. In the terms of Table 1, where central administrators cannot act deliberately—predetermining patterns in streams of action—they seek to have deliberate influence on emergent patterns. In other words, they try to affect the broad directions such patterns may take.

The *umbrella* strategy reflects an attempt to define broad guidelines within which emergent strategies should fall. For example, while

administrators may not be able to dictate course content or teaching methods, they might at least be able to control parameters that constrain these choices. Constructing only large classrooms encourages formal lecturing, while small classrooms encourage closer rapport between students and faculty. Similarly, administrators can use their powers of persuasion within the interactive process to encourage or discourage the projects championed by others or, at the limit, they can evoke their powers of veto to block certain projects.

Process strategies relate to control of how things get done rather than what gets done. Course content may not be controllable, but control over hiring (at least to the extent of veto) can be tantamount to considerable influence over course content. Indeed, given the influence of the individual professor in the system, staffing must be considered a form of strategy making in the university, perhaps its single most important component. The hiring of a single professor amounts to the introduction of a product-market strategy! Likewise, the ability to design the committee structure, and especially to staff the committees, can have a profound influence on the outcome of committee deliberation. The administrator intent on reform in a certain academic sphere may not be able to dictate to a committee, but his power to staff that committee with reformers may be all he needs.

It is interesting that in Hodgkinson's study of the perceptions of the most significant changes in universities, the presidents reported "changes of internal authority and the governance structure of the institution" (1977, p.219) most often by far. (Imagine the presidents of manufacturing firms reporting such changes in preference to ones in products and markets!) The fact is that people focus on what they can change, and in the case of university administrators that centers more on administrative process than on academic content. In the same spirit, a number of the recommendations Cohen and March make to university presidents, such as "spend time" (on decision making activities), "facilitate opposition participation", "provide garbage cans" (to deflect attention from more important issues) (1974, p.206, 209, 211), encourage them to manage the process.

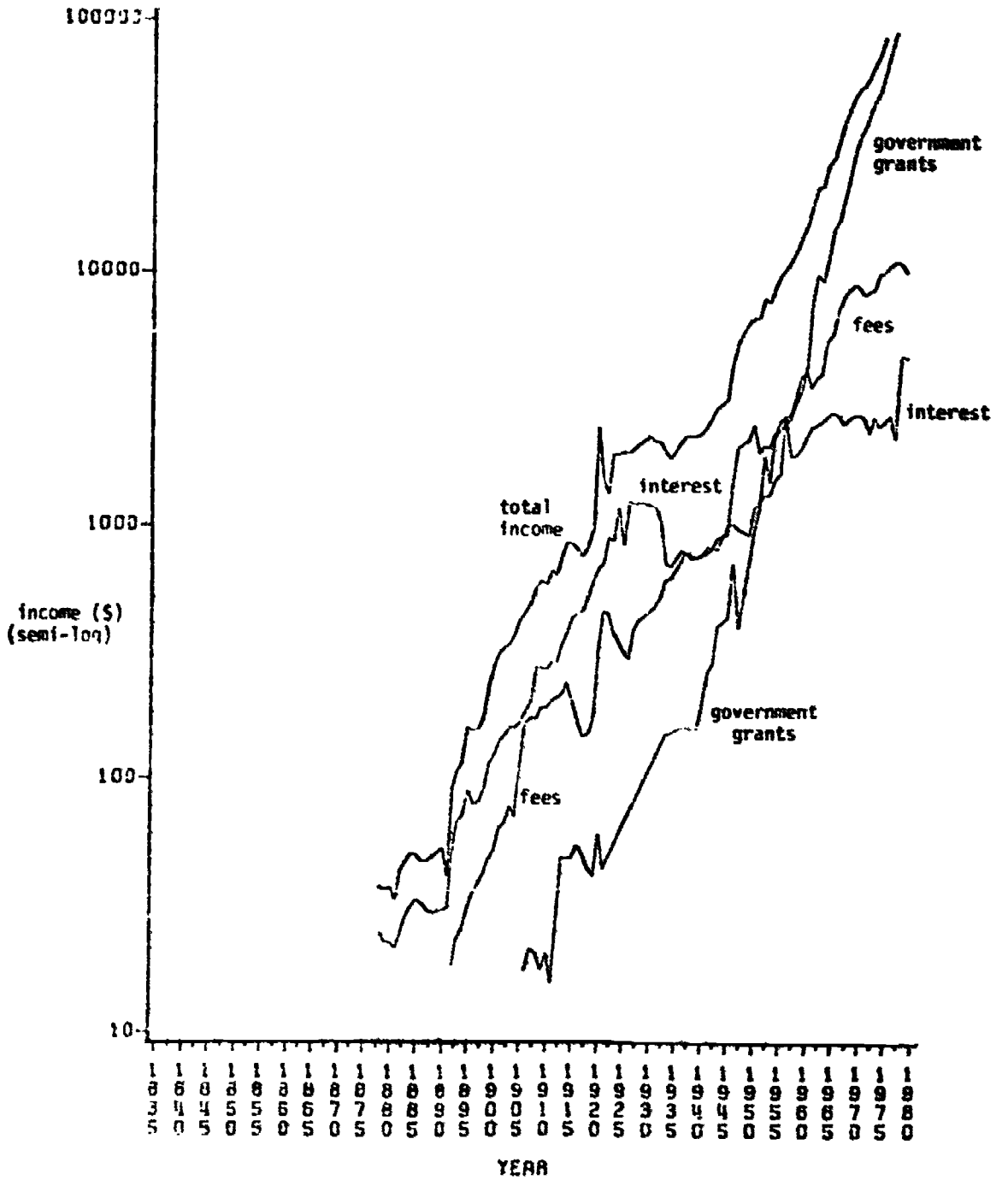
10. Crises enhance the power of central administrators over the formation of strategies. Strategies, as patterns, often emerge from precedent-setting decisions, and these often occur during times of crisis, when radical actions must be taken quickly. A hasty decision to call the city police onto campus to quell a revolt may encourage the bringing in of the police for minor disturbances later on. Moreover, decisions that would be blocked for years in the interactive process can sometimes be made quickly by administrative fiat in times of crisis. For example, a weak department may hang on for years, developing

supporters in return for cooperation on various university committees. But come a severe budget squeeze, all those marginal supporters may be just as happy to see the department eliminated by administrative initiative. In other words, decisions in the realm of collective choice may move into that of administrative fiat in times of crisis, during which shrewd administrators, by establishing important precedents or breaking established patterns, can alter strategies long after the crisis has passed. Clark (1970, 1972) in fact, describes how the entire ideology of a college can be established by a strong leader during a major crisis, even though he may not even remain to see it fully implemented.

> Deep crisis in the established organization thus creates some of the conditions of a new organization. It suspends past practice, forces some bordering groups to stand back or even turn their backs on failure of the organization, and it tends to catch the attention of the reformer looking for an opportunity . . . Crisis and charisma made possible a radical transformation out of which came a second Antioch, a college soon characterized by a sense of exciting history, unique practice, and exceptional performance. (1972, p.180)

11. Some strategies resulting from administrative activity are in fact imposed by external influencers. Much as personal strategies may be imposed by professional bodies, so too administrative strategies may be imposed by influential outsiders, such as donors or governmental officials. When endowment income constituted the major part of McGill University's budget, donors had considerable influence. For example, a donation made in 1886 provided the necessary funds to establish McGill's first program for women's instruction. The donor insisted, however, that the women's classes be held separately from those of the men. The principal was prepared to accept this ultimatum and later stated that he probably would have done so even if he had been a committed co-educationist (Frost, 1980). However, given the decentralization of power over many key strategy areas, external influencers have often been reduced to controlling peripheral strategies (what kind of football team the old alma mater will have) or have been limited to what Cyert and March (1963) call "side payments" (a seat on a weak board, a name on a new building). More recently, the government has provided the lion's share of the operating budget, as can be seen from Figure 4, and it has displaced the donors as the major influence. One example of this has been the government's refusal to

Figure 4:
Income at McGill University



allow tuition fees to be increased in recent years, thus further increasing the dependence of the university on the government.

Propositions about Collective Choice

12. At one extreme, interactive processes can encourage some loose cohesion in fragmentated activities, leading to negotiated departmental or university-wide strategies. When interactive processes are no more than political in nature, we might expect the greatest fragmentation of activities, as each actor seeks to satisfy his own self-interest. But that does not preclude the appearance of consistencies in the actions of the organization over time, which we refer to as *negotiated* strategies (see Table 1). At the very least, the negotiated outcomes of interactive decisions—for example, about hiring and promotion, tenure regulations, program development, or enrollment—can lead to a kind of "style" of a given department or of the entire university. Essentially, collective choice means that people from a variety of departments or pigeonholes are committed to the outcome, which can produce patterns across these divisions. Moreover, collective choice influences individual professional judgment: for example, who gets hired determines what research gets done.

13. At the other extreme, interactive processes can produce strong consistent themes, leading to pervasive ideological strategies. As Clark (1970, 1972) describes the "distinctive colleges", academic institutions sometimes develop powerful and pervasive systems of beliefs which produce strong consistency across all kinds of decisions: we characterized such consistency in Table 1 as an *ideological* strategy.

Clark traces the origins of such ideologies to strong leaders in the organization's past, whether at the time of formation, during a later crisis, or just when the time happened to be right for change. By the same token, of course, such leadership can emerge in a department, so that the ideology remains at that level. For years, the Psychology Department at McGill University exhibited a strong physiological orientation in its teaching and research. This could be traced to Donald Hebb, its most distinguished member, who developed his reputation in that sphere and in turn exercised an informal leadership in the interactive processes of the department. Eventually consistency became ideology.

Note that while the origin of the ideology may be individual—a central administrator or even a single academic who, for example, creates a new pigeonhole—its institutionalization can only occur in the collective process, as a variety of individuals interact to reinforce the

new beliefs (which Clark refers to as the "fulfillment" stage, noting that it often happens after the leader has left). Once these beliefs emerge as traditions, the ideology is set; thereafter, it is reinforced through various forms of identification, as individuals preselect themselves to join the group, or are selected to do so, based on their natural identification with it, or else develop such identification after joining through processes of socialization and/or indoctrination (see Mintzberg, 1983, chap. 11).

Thus personnel decisions are critical in the development and perpetuation of ideological strategies, especially in universities where the individual professor has so much autonomy. A powerful academic orientation can dominate a department or university only if those invited to join and remain with the group conform to its beliefs. Thus the McGill Psychology Department could sustain its physiological orientation only so long as it recruited people with that outlook, or at least encouraged people to adopt that outlook once hired. Likewise, a college intent on sustaining a strong Baptist tradition cannot tolerate "radicals" intent on promoting other religious beliefs. Thus, collegiality reigns supreme in the case of ideological strategy: the emphasis is on unity and the common interest.

14. Between these two extremes, interactive processes create consistencies through formal procedure and implicit habit, leading to (more or less) planned and consensus strategies. Sometimes the interactive processes produce consistency in a formal way, as when a senate enacts new tenure regulations to apply to the whole university. These can, for example, be designed to tilt tenure decisions in favor of research, so that, assuming successful implementation, the university may be described as pursuing a deliberate, more or less *planned*, strategy. Assuming broad concurrence, the strategy may also be described as one of explicit consensus.

But *consensus* strategies of an implicit and more emergent nature (as described in Table 1) can also appear out of the interactive process. They develop through precedent and habit, as well as informal mutual adjustment among the different actors in the system. People abide by them, not necessarily out of ideological commitment per se, but more from a sense of how "things are done" in the institution. Thus, formal changes in the tenure regulations enacted by the McGill Senate several years ago have not affected the implicit norms that favor the granting of tenure in a large proportion of cases. This stands in sharp contrast to many equivalent American universities that usually deny it, sometimes even having a quota on tenured slots. McGill perhaps pays more attention to who is hired in the first place (or at least certain departments do, again reflecting the fragmentation of strategies), and then is

able to achieve a more collegial, less threatening atmosphere by diminishing the importance of the tenure decision.

To sum up, we have suggested in the last three propositions that the interactive process may produce a range of strategies, from weak negotiated ones to strong ideological ones, with ones of a planned or consensus nature in between.

Concluding Propositions

15. University strategies tend to exhibit a remarkable degree of stability, discouraging any form of strategic "revolution". Were garbage can processes predominant in university decision making, one would not expect stability and patterning, but the reverse: unpredictable, random swings in behavior. Our belief, however, is that this randomness is restricted to relatively minor issues, and tends to balance itself out, so that it appears more in the form of random variations around more stable patterns. Thus, two factions in the medical faculty might fight idiosyncratically about whether or not to admit eight more students, while the overall pattern remains rather stable. It may go up or down by a few students as one side occasionnally scores points and then the other. But the pattern will not change unless something fundamental does—like the occurrence of a war or of new restrictions imposed by the local college of physicians and surgeons. In other words, we suspect that garbage can processes create "noise" in the system, and show up as the short-term variations around long term trend lines.

There are many good reasons not only why patterns should appear in universities, but why they should exhibit considerable stability—why strategic "revolutions", when many key strategies change suddenly, should be rare in universities.

Perhaps the most fundamental reason is that responsibility for strategy is divided among so many people: many autonomous individuals are unlikely to change their collective mind, at least not simultaneously, radically, and consistently.

At the individual level, professors who have invested time and effort to learn their standardized skills are unlikely to change them frequently or radically. Hence the mission of the university, represented by the aggregation of the personal strategies based on these skills, is likely to be highly stable. Even the change that does take place is likely to be localized to specific pigeonholes, so that the aggregate mission strategies are hardly affected at any one time. Moreover, the rooting of these personal strategies in professional affiliations makes them even more immutable. Many of these strategies are, after all, established by

consensus among professionals flung far and wide, and are upheld by the most respected members of the profession. Forces for change from within an academic institution can, therefore, be countered by the forces of the status quo elsewhere:

> Less commonly commented upon is the increasing degree to which departmental power is abetted by professional accrediting agencies—external to, and largely independent of, the university. In most of the cases, colleges, schools, or other subunits, all with interests to defend, were also involved. All these individuals and groups have overlapping and conflicting interests and jurisdictions which are bound to be affected by changes in educational policies, and consequently the forces toward maintaining the status quo are enormous. (Ladd, 1970, p.206)

Collective decision processes also encourage stability of strategies. We have already noted how staffing decisions can perpetuate established ideologies. In addition, the sheer weight of the interactive processes (especially in the selection phase) is likely to discourage all but the most dedicated and determined champions of change. Moreover, power tends to become institutionalized over time: it is a self-perpetuating phenomenon—those who have it use to get more (Gaventa, 1980; Lukes, 1974; Pfeffer, 1981; Salaman, 1979). Another factor is that new members are often selected to fit in with the existing culture of the organization or of a department, and socialization reinforces that tendency.

The strategies that develop through administrative fiat may be more flexible than those emerging from collective choice. This is partly because they tend to be more deliberate and impersonal and are thus more easily confronted than the more emergent strategies of the collectivity. Moreover, these strategies fall under the control of relatively few people. Thus a new university president can change the strategies of his or her predecessor far more easily than those that have emerged from collective processes. A strategic revolution may, therefore, be conceivable only in the limited spheres of administrative fiat, or only when a severe crisis concentrates more pervasive decision making power in the hands of a few people for a period of time.

What, in our view, typically characterizes university strategy formation, then, is not revolution, nor the randomness of garbage can processes, but a fundamental stability. To take the case of McGill University, aside from a small Veterinary Science program that was terminated in 1908 and a Common Law program terminated in 1926 (to

be reinstated in 1968), no basic degree offering has ever been eliminated. (Even majors within such programs have rarely been dropped.) This absence of change in basic product offerings may not seem terribly surprising to anyone familiar with universities, but when put into a broader perspective, it does have an important message.

An IBM has lived through several generations of computers; in the mid-1960's it voluntarily obsoleted its major product lines by developing the new 360 System (Pounds and Wise, 1966). Volkswagenwerk underwent virtual revolution to shift from its basic Beetle model to its newer line of Rabbits, etc. McGill University, probably like many of its sister institutions in Canada, the United States, and Europe, has undergone no such revolution in over a century. It has certainly added programs and elaborated a number of the ones it had, especially in the 1960s and 1970s. But it has faced no major upheaval in its basic orientation, no "quantum" change in its strategies (Miller and Friesen, 1980). Even the student confrontations of the late 1960s, which it too experienced, produced hardly a ripple in the long established patterns.

Indeed, a glance back at the curve of total student enrollment in Figure 3 suggests just how stable those patterns can be. Given the different shapes of enrollment curves in the individual faculties, and the plethora of decisions that make up each of these curves, the remarkable thing about the total enrollment curve is its rather linear growth over the very long term, from a level of about 200 students in 1860 to just over 20,000 in 1980. A straight diagonal line on semi-log paper suggests a constant rate of growth: the straight line that could easily be drawn through 120 years of this total enrollment curve indicates a mean annual growth rate of 3.75%. Variations do occur around this mean; what is remarkable is that the university always returned to the trend line. Accelerated growth followed by return to the trend line can be seen especially in the 1870's, again in the 1880's and 1890's, and finally in the 1960's and 1970's. This long term trend was maintained despite two major shocks to the system, around both world wars, with similar patterns, as the university lost enrollment to military enlistment, then made a special effort to accommodate the returning veterans, and thereafter fell right back to the long term trend line. The depression of the 1930's, that followed the first of these shocks, imposed a new and slower rate of growth, itself very steady to near the end of World War II, as if the lost growth of the depression substituted for the decline expected when war broke out. Finally, there are many brief variations in the curve—almost like vibrations around the longer term trends. Perhaps it is these that reflect garbage can processes: as noted earlier, professors arguing with each other irregu-

larly about whether to accept a few more students in Medicine, or to lower the standards in Arts by a percentage point or two, while the whole system followed its stable long-term course.

This remarkable stability over the long term might be explained by environmental trends that themselves remained stable—the amount society has been willing to spend on higher education, the growth in population and student demand, etc. Another explanation may be that the university as a system has followed its own internal growth imperatives. Too little growth, as we noted earlier, could generate conflict, putting different groups into competition with each other. But too much growth may have been more than the system could handle, creating a certain chaos which led to its own kind of conflict. Hence, there may have been an incentive to follow the line of least resistance—to grow slowly and steadily, in this case preferably in the 3-4% range. This might be called the "range of ostensible collegiality", where the system was best able to maintain what at least appeared to be collegial relationships (in behavior if not intention), and minimize overt conflict. By this argument, every time the system was forced by the environment to speed up, it eventually had to slow down to absorb the expansion; every time it was impeded from growing as it wished, it sought eventually to speed up to recoup its losses. There may be a grain of truth in both environmental and internal imperative explanations; the subject would seem to merit further investigation in any event.

16. *Changes in university strategies do occur, constantly and gradually, in lagged response to environmental forces, driven by professional judgment, administrative fiat, as well as the collective processes of politics, collegiality, and analysis.* While strategic revolution may be rare in universities, we believe gradual, incremental change is endemic. At the broadest level, of mission offerings and ideologies, change may be difficult. But at the narrowest—inside tiny pigeonholes—the "snakelike" development (described in Proposition 7) occurs continuously. Research topics change, new course texts are adopted, course content is updated. Universities change much as the Volkswagen Beetle did for years and years——a larger window here, a new tailpipe there, and so on. Thus, while the Faculty of Medicine at McGill awards in 1983 the same M.D. degree it did in 1840, the content of that degree has changed completely through countless individual professional decisions, consolidated by occasional collective efforts at program redesign. But the complexity of the collective process encourages change to take place at the individual level, in fact, sometimes in a clandestine manner. Thus, we would expect the university to experience many imperceptible mini-revolutions in place of any overt

pervasive ones. In this respect, some of the collective change that does appear may simply be the formal acknowledgment and consolidation of many small individual changes—after the fact. The emergent patterns are thus made deliberate.

Bolder change does, of course, take place on other levels. In the realm of administrative fiat, as noted earlier, change is easier to achieve since the decision making process is so much simpler and more centralized. Thus "revolutions" in support services (say, student residences or the printing service), or in budgeting techniques or fringe benefits, are to be expected occasionally, and these may occur in more academic areas when centralization arises in times of crisis (as when weak departments or programs are terminated).

Despite the difficulties, however, collective processes can also promote strategic change. As power shifts, based on environmental forces—for example, as the sciences gained influence, in the form of greater access to research funding and increased student enrollment, at the expense of the humanities after Sputnik—so too do decisions change, leading to new patterns of behavior. This process is speeded up by individuals who expend energy from political or collegial perspecitives to champion new interests. The necessity for them to couch their ideas in analytical terms, and the critical appraisal to which their analyses will be subjected by their opponents, works to produce the rejection of irregular and unjustifiable projects, which in turn enhances stability. But the same forces can also create greater receptivity to those ideas which have a sound underlying rationale.

In all these ways, adaptation to environmental forces can occur gradually and without revolution, although in lagged response to environmental events and trends.

In summary, universities are paradoxically extremely stable at the broadest level and in a state of perpetual change at the narrowest. One may in fact explain the other. Revolutions are perhaps only necessary in organizations that cannot adapt sufficiently at the narrowest level. While Volkwagenwerk could change its Beetle continuously, it could not fade that model into the Rabbit in the way McGill was able to fade the 1840 M.D. into the 1983 version. Hence Volkswagenwerk underwent system-wide revolution while McGill did not.

To conclude:

17. Strategies abound in universities. If strategies are patterns in activity over time, then much of the literature on the functioning of universities argues against the occurence of strategies. Planning is discouraged, decision making is fragmented, politics encourages conflict, garbage can processes promote idiosyncrasy.

But our findings are quite to the contrary. Standardization of knowl-

edge and skills together with pigeonholing certainly encourage order and patterning, as does professional affiliation; and analysis encourages stable responses to external needs, while collegiality promotes consistent behavior within the system; even politics works to stop some change and slow the pace of the rest. As for the garbage can model, it may in large part represent the unexplained variance in the system—that is, whatever is not understood might look like organized anarchy. If true, then the more we come to understand strategy formation in the university setting, the less explanatory the garbage can model should become. Our discussion suggests, in fact, that university behavior is epitomized by order and patterning of all sorts—in actions as well as in processes. As soon as strategies are defined from the perspective of realization instead of intention, universities can be seen to have strategies, indeed, when all of the different patterns are considered, to be inundated with strategies!

To close this discussion, we do not wish to leave the reader with the impression that we are totally complacent about strategy formation in the university setting, that is, that we believe universities "have it all right". We too have had our frustrations with the processes described, whether they be fighting to push a Ph.D. program through the collective process, struggling to gain acceptance for unorthodox research, or merely trying to avoid being prematurely pigeonholed! But of one thing we are certain: the problem is not that universities do not have strategies, but that they do—and with a vengeance.

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*This aspect of retrenchment in universities is currently being studied at McGill by one of the authors. See, for example, Hardy (1983).

DOING NEW THINGS IN OLD WAYS: THE CHAINS OF SOCIALIZATION[1]

John Van Maanen

Organizational socialization is not a fancy phrase; it is a theory. It is a theory about how new skills, belief systems, patterns of action and, occasionally, personal identities are acquired (or not acquired) by people as they move into new social settings. It is also a theory about what kinds of things happen in these settings when some people (agents) organize tasks and social relations for other people (recruits) in particular ways. Organizational socialization, then, is about recruit responses to agent demands as tamed or accentuated by the task and social organization characterizing a given setting.

Two analytic archetypes represent contrasting forms of organizational socialization (Van Maanen & Schein, 1979). These archetypes draw attention to the range of possible interests socialization agents may have in the kinds of behavior they wish from newcomers. On one hand, agents may wish to remake those entering a particular social setting so that their conduct conforms to an image agents carry of what is organizationally desirable and proper. Socialization under these conditions is typically harsh, involving dismantling as well as bestowal rituals as part of a transformation process. Agent concern is directed

[1]This paper has been percolating for some time. I have talked through the material in a speech "Socialization and Innovation" given at MIT for the Industrial Liaison Program Symposium on 'Organization Studies and Human Resource Management' on December 15, 1981; in a public talk on the barefaced topic of "Making It in Management" sponsored by the Women in Management group at Cornell University on April 6, 1982; and as a speaker on "Chains of Socialization" at the Educational Career Planning Organization's eastern meetings in New York on October 16, 1982. Those who have helped me through various forms and versions of this paper are many. Especially guilty of giving aid, comfort, and material from which I have unblushingly drawn include Diane Argyris, Lotte Bailyn, Steve Barley, Jim Bess, Nancy Dallaire, Debora Dougherty, Debbie Kolb, Gideon Kunda, Jeanne Lindholm, Marc Miller, Peter Manning, Jeff Pfeffer, Ed Schein, Diana Smith, and Karl Weick. Partial support for the writing was provided by: Chief of Naval Research, Psychological Sciences Division (code 452), Organizational Effectiveness Research Programs, Office of Naval Research, Arlington, Virginia, 22217, under Contract Number N00014-80-C-0905; NR 170-911.

John Van Maanen is a Fulbright Senior Scholar in the Department of Sociology at University of Surrey and is on leave from the Massachusetts Institute of Technology where he is a professor of Organization Studies in the Sloan School of Management.

toward the passage of traditional skills, values, practices within an organization (or department or group) and seeks, therefore, to reduce systematically whatever diversity exists among recruits at entrance (Weick, 1982). Illustrative organizations include prisons, mental hospitals, military agencies, some homes for the infirm and aged, and many educational institutions, as well as organizations marked by strong service mandates (or claims) such as professional schools, many public bureaucracies, and some more or less insulated profit-seeking organizations that are able to exert relatively high control over the markets of their interest.

On the other hand, socialization agents may wish to take advantage of whatever attitudes and skills entering members already possess and, therefore, do what is possible to encourage recruits to exhibit and further refine such attributes. Socialization under these conditions is typically celebratory and benign, involving welcoming and confirming ceremonies designed to ease whatever transition troubles recruits may experience. Agent concern is for promoting the passage of skills and practices across organizations (or departments or groups), such that recruits, viewed as vehicles carrying desirable characteristics, swiftly begin to bring their imported attributes to bear on organizational purposes. Whatever diversity is found among the recruits at entrance is, presumably, of little agent concern. Organizational examples include most circles of higher-level management, most voluntary and leisure oriented organizations such as civic associations and sporting clubs, most educational programs built on preserving the heterogeneity of the student body, and, probably most profit-seeking firms that have relatively little control over the markets in which they operate.[3]

[3]Invoking an environmental characteristic as an explanatory variable for some structural feature of an organization is, of course, a very risky business. I do so here only because I wish to draw attention to the fact that socialization requires organizational resources of both a human and financial kind. To organize and offer heavy-handed socialization of a transformational type requires investments which few firms operating in highly competitive marketplaces (especially small ones with precious little slack) are likely to make. The strategy such firms seem to follow involves buying the services of those presumed to be already socialized effectively and then swiftly testing this presumption by seeing if the talents so purchased can be put to useful work. Much turnover may be the mark of many firms following such a strategy and considered by them merely a cost of doing business in a given industry (Stinchcombe, 1980). That this is viewed by owners and managers alike as less costly than promoting loyalty and developing corporate specific skill early on through intensive but expensive socialization is the point of the example in the text. The resource dependency perspective on organization design (Aldrich and Pfeffer, 1976; Pfeffer, 1982, p. 198-208) as well as Ouchi's (1980) very clever rendition of markets, bureaucracies, and clans provide theoretical guides to the claims of my paper.

The distinction drawn between these two forms of organizational socialization is of importance in this essay. One form transfers skills, knowledge, and values learned elsewhere by recruits into a new setting without great modification, thus deemphasizing agent-directed, organization-specific learning. The other form transforms skills, knowledge, and values brought to the setting by recruits, thus promoting agent-directed, organization-specific learning. Much of what is currently thought a result of organizational socialization is of the latter variety. Specific skills, knowledge, and values that transcend particular socialization settings are not often discussed in the organizational socialization literature since more than one setting is rarely examined in any given study. Moreover, those ascribed attributes that are transmitted or do transcend settings are usually regarded as results of early childhood (e.g., personality development, language learning, and moral development) or institutional socialization processes (e.g., educational, class, and media) and are, as such, thought so basic, so fundamental, that they do not warrant more than passing mention.[3]

Yet, as I have argued elsewhere, socialization takes place from womb to tomb. It is a recurrent and lifelong process taking many forms and occurring across a wide range of settings (Van Maanen, 1976, forthcoming). Exiting one setting moves one into another, and socialization begins anew. For example, work careers as well as educational careers are marked by observable and more or less ordered role and status shifts, each entailing different mixes of responsibility, skill, colleagues, and required behavior (Becker & Strauss, 1964; Schein, 1971). It is in this sense, then, we can speak of careers as "chains of

[3]Such lack of interest stems from the faith we apparently place in the unshakeable nature of what we call our personalities. Thus, even when dramatic shifts of attitude and behavior occur among adults, both the folk and sometimes academic views seem to be that such shifts merely reveal what such people were all along. This is hardly the place to quibble about what is deep and permanent within a person and what is not. But, what I do want to point out are the awesome people-shaping powers we unhesitatingly grant to early childhood and adolescent experiences. Theories, if not always the research on which they are based, affirm the conventional wisdom. For example, developmental theories of the career would have us believe that a person's occupational preferences, if not talents, are all but determined by the time one exits high school or, at the latest, college (e.g., Super, 1957; Sonnenfeld & Kotter, 1982). Sociological career theories also embrace a similar conclusion and point to the apparent connection of class, gender, region, schooling, cohort, and even the accident of birth order on both the seeking and finding of careers, as well as on the success or failure within them (e.g., Slocum, 1966; Moore, 1969). Brim's (1966) views on how childhood socialization plays itself out in adult life are most appealing to me, but I am also too much of a Goffman disciple to dismiss entirely the cognitive and social importance of the sort of self-bending we do throughout our careers as a result of a situation specific socialization (Goffman, 1959, p. 196).

socialization." And by so speaking we can begin to note, as those involved in such sequences do, the similarities and dissimilarities among the links of any given chain.

My purpose here is to suggest what might be learned by examining the links of a socialization chain rather than by examining any one socialization episode in isolation. The advice to be offered students of organizational socialization will be to look back across several socialization settings for insight into the way individuals currently respond to new task and social demands. Specifically, I will propose and defend the relatively straightforward proposition that people, when left to their own devices, learn new skills (or roles, or occupations, etc) in much the same ways they learned old skills that are seen as similar to the new.[4] This is not a particularly keen or novel suggestion, but, as I intend to show, it is a suggestion that opens up some intriguing empirical and theoretical avenues in the sociology of organization and work behavior.

Conceptual Framework

A good deal of research goes into exploring the social psychological correlates of socialization processes in various kinds of educational organizations (e.g., Bess, 1978; Cusik, 1973; Newcomb & Wilson, 1966; Rosenbaum, 1976). Medical schools, in particular, are often examined intensively in terms of the ideological, attitudinal, and behavioral changes undergone by student physicians as they pass through the various stages of student life (e.g., Becker, Geer, Hughes, & Strauss, 1961; Bosk, 1979; Merton, Reader & Kendall, 1957). Much the same is true for studies of recruit socialization in work organizations (e.g., Frese, 1982; Mortimer & Simmons, 1978). Relatively less effort in either work or educational domain is directed toward exploring the social structure of socialization settings and the differential impact such structure may have on recruits ostensibly undergoing

[4]This is not a very startling proposition. Cognitive and cultural anthroptoligists have been using it for years, although Stefflre (1972) has been perhaps the most bold and explicit. In psychology, the proposition is everywhere and elegantly handled by Miller, Galanter, and Probram (1960). In sociology, Goffman's (1974) frame theory, Cicourel's (1974) cognitive sociology, and Garfinkel's (1967) initial formulation of ethnomethdology make my simpleminded proposition appear primitive at best and banal at worst. My excuse for reformulating it here is merely that it has helped me think about organizational socialization in a fashion I think useful. We have perhaps another example then of doing new things in old ways; an example restricted to the chain of socialization which is, in this case, my own.

preparation for similar roles (e.g., Bucher, Stellings & Dommermuth, 1970; Light, 1979; Wheeler, 1966). Most critically, very little work examines the structural or cognitive analogies (if any) between two socialization experiences sequentially undergone by the same individual or group.[5]

It is this last matter I wish to push about in this paper. A good place to start pushing is with the notion of "anticipatory socialization;" a phrase coined by Merton (1957, p. 265) to refer to the process by which people begin to take on the perspectives of the groups to which they aspire. It is cultural learning that Merton has in mind, and it covers such matters as expectations, values, skill development, and normative (moral) judgments about the kinds of abilities and performances a person thinks likely to be applicable and rewarded in an imagined new setting. Anticipatory socialization stems from any and all learning experiences a person has prior to entering an aspired-to-situation, although, other things being equal (surely the exception in social life), more recent experiences will probably outweigh the more distant (Van Maanen, 1976).

Viewed in this fashion, anticipatory socialization can be keyed to both particular periods and specific settings in a person's life. Socialization chains are then comprised of links wherein the lessons learned in any one period and setting are put on the line by a recruit and subjected to some sort of test in another period and setting. A socialization chain, has, of course, many links. Hence, when looking back over a chain, people will typically regard some socialization experiences as more crucial, more fateful, more important, and more useful to them currently (or generally) than other experiences which, for the moment at least, are thought of as inappropriate, irrelevant, or misguided if they are thought of at all. Those exalted socialization episodes represent times and places which have proven their worth to people in terms of the skills and values they now happily and conveniently believe they possess.

The specific context where, for a recruit, this sort of highly regarded socialization occurs is what I will call a "culture of orientation." This

[5]Drawing out such analogies rests, of course, on the careful description of at least two socialization settings, and then noting the parallels and contrasts between them. As suggested in the text, most socialization studies focus intensively on only one context. For example, we may know a good deal about recruit socialization in particular schools or in particular organizations, but rarely do we know much about the relationship (or lack thereof) of one to the other as mediated by recruits in each. An important exception to this general rule is Willis's (1977) provocative analysis of how working class kids get working class jobs.

is, in essence, what recruits import into any new setting. Such a culture may, of course, not import easily. It may, in fact, prove disastrous to recruits since it may be attacked in the new setting by socialization agents who have an interest in defiling and destroying the prior understandings some, if not all, recruits bring with them. However, when the culture of orientation is honored or at least tolerated by agents, then we can reasonably begin to consider how new things are learned in old ways.

Because I have now introduced the term, a word or two on the definition and use of the omnibus noun, culture, is due. By and large, proof of a culture's existence lies in the simple observation that some people manage to do a number of things together (Becker and Geer, 1960; Redfield, 1941). This is usually not accidental. For people to act in coordinated ways, each must first have some ideas about how to do something and what it means to do it. Each must also believe that at least a few other people share this idea as well. To lift some well chosen words of Howard Becker:

> [culture] . . . consists of people doing something in line with their understandings of what one might do under the given circumstances. Others, recognizing what was done as appropriate, will then consult their notions of what might be done and do something that seems right to them, to which others in return will respond similarly, and so on." (1982; P.518)

This is a spare definition of culture. But, it is all we need here because it properly points to the shared understandings people use to align their actions with others. When a group of people do, in fact, share certain relevant understandings (as expressed through the language they use, deeds they perform, artifacts they employ, stories they tell, accomplishments they honor, standards they heed, gestures they acknowledge, etc.), culture can serve as an explanation for at least some individual and collective behavior.[6]

[6]Those of us who are the culture vultures of organization studies are a fairly contentious lot and do not frequently adopt one another's definitions. We should not be surprised. Anthropologists who are thought to "own" the concept also disagree, and disagree spectacularly, as to what culture means and how it works (e.g., Kroeber & Kluckholm, 1952; Sanday, 1979). As displayed in the text, I lean toward the symbolic ("shared") and cognitive ("understandings") in my use of the term. A good discussion and critique of the many uses of culture in organization studies is provided by Allaire and Firsirotu (1982).

Chains of Socialization

I take as axiomatic that people carry culture with them. Leaving one setting for another does not mean that the cultural premises of the first are abandoned for those of the second. Whatever cultures of orientation recruits possess will help shape their understandings and responses to the task demands and performance requirements made of them in any new setting. Colloquially, a culture of orientation provides "roots" for a recruit in transition and tells others in the new setting where the recruit is "coming from." If the socialization machinery encountered by a recruit is of the ceremonial, confirmatory sort, the culture of orientation offers the person in transition knowledge, technique, and value, all of which are helpful in making the transition a smooth one by providing a strong link in the socialization chain. How such connections from past to present experience are made by recruits is the subject of the following three quite brief, yet distinct ethnographic accounts.

For analytic diversity, descriptive drama, and personal fancy, I examine the socialization processes involved in acquiring an occupation (management), taking a role (police sergeant), and learning a skill (windsurfing). In each example the focus is on contrasting aspects of a given link in a socialization chain. The occupational illustration considers some of the ways certain graduate business schools prepare their students for managerial careers, and concentrates, therefore, on how particular cultures of orientation are learned and adopted by recruits (students). Although it is the most elaborate of my examples, the playing out of the respective cultures of orientation in the multiple work worlds entered by graduates of the respective preparatory programs examined is only tentatively (and swiftly) addressed. The role socialization example (police sergeants) considers intraorganizational mobility and, in contrast to the management school materials, concentrates more on the carry-over of a culture of orientation into a new social context than on its creation. The final example deals with skill acquisition (windsurfing) and, although it is the most compact and abbreviated of my illustrations, it considers more directly than either of the previous two examples the way a link in a socialization chain is forged by recruits, both socially and cognitively.

Golden Passports: Management Education at Harvard and MIT[7]

A common observation is that graduates of some educational institutions never seem to get over the experience of their attendance. It is said, for exmaple, "once a Yalie, always a Yalie." Certainly some schools, notably the most prestigious, expensive, and exclusive ones, are far more successful than others in producing graduates who have paradigmatic but institutionally contrasting ways of presenting themselves to others, solving worldly problems, and, apparently, displaying their trained capacities (or incapacities) in much of what they do. That some 60 years old alumni still shed an occasional tear (or a dollar) for Dear Old Alma Mater attests to the power certain institutions possess in shaping the lasting identities and perspectives of their students. Professional schools leave their mark on graduates as well.

This section examines the formation of what, for many students, comes to represent a most significant and enduring culture of orientation. Moreover, it is a culture that is sought, bought, and put to immediate use in many of the most highly regarded business enterprises of this society. My focus is on two elite schools that graduate yearly cadres of MBA's, eager and presumably well prepared to enter the primal soup of corporate life. The examples of choice are rather near and dear to my heart: MIT's Sloan School of Management (where I currently teach) and, upriver, Harvard's world renowned business school (more commonly, the *B*-School). Whatever favoritism leaks out of my descriptions can perhaps be countered by the reader's own.

The two business schools discussed here are presented publicly by the agents within them as quality institutions which transform high-potential but essentially raw recruits into astute observers of the business scene more or less bursting with managerial talent. Both

[7]Materials in this section are based on a variety of sources. Parts of the section can be read as a self-report from an agent-informant. Personal knowledge underlies much of what I say here, but personal knowledge is, alas, not always correct. At any rate, my knowledge of MIT is intimate, first-hand, and informed by my more or less responsible participation in the affairs of the school since 1972. My knowledge of Harvard is, at best, proximate and based largely on informant reports (students and ex-students, faculty and ex-faculty), loose and sporadic observational forays (always for other purposes), and the published self-reports of the school (e.g., Annual Reports, *The Harbus Review*), its faculty (e.g., Roethlisberger, 1977) and its students (e.g., Cohen, 1973). The best source on the B-School I have stumbled across is, however, a little known work by Orth (1963) wherein the inner workings of two first-year sections are closely detailed. This is a lovely piece of work that deserves far more attention than it has received, particularly in light of just how relevant Orth's observations are today. Finally, I should note that I have titled this section "Golden Passports" because, at both schools, starting salaries for the newly-minted graduate of the Class of '82 averaged around $36,000 per year.

settings are intentionally designed to change people, to make them smarter, wiser, more skilled, knowledgeable, and the like. Of course, more is accomplished than the simple transmission of knowledge and technique. This "more" often includes the transmission of values or ideologies, preferences for certain activities and distastes for other activities, standards of evaluation, the making of new friends and associates, the refinement of social skills, and so forth. More to the point, what is learned in graduate schools of business, including and beyond the stuff of the classroom, has something to do with the way various learning tasks are organized for students by the faculty and administration.[8]

Graduate students seeking the Harvard MBA do so in splendid isolation from both the undergraduate and other graduate schools of the university. The business school campus is across the river from the main campus and is literally a self-contained educational plant with its own bookstore, press, libraries, pub, health center, administrative offices, recreational facilities (e.g., tennis, squash and handball courts, pool, and running track), barber shop, post office, and semi-attractive living quarters to house the majority of the student body. The school also operates on its own quite distinctive class schedule (incomprehensible to outsiders) and academic calendar that neither begins nor ends a term in harmony with other schools at Harvard (or elsewhere). It is altogether possible, if not probable, that a student in the business

[8]The theoretical assumptions running beneath my choices of what to look at and describe at Harvard and MIT have been advanced and used by many students of educational organization and process (e.g., Becker, Geer; Hughes, 1968; Becker, Geer; Hughes & Strauss, 1961; Wallace, 1966; Olesen & Whittaker, 1968; Schein, 1972; Light, 1980). Essentially, these writers argue that schools organize student learning tasks differently and, hence, offer different experiences for their students. If experiences vary, so too should the norms and values adhered to by students across schools. The question researchers have then asked is what tasks and what experiences matter most? A marvelous comparative study that asks just these questions is White's (1977) close look at the ways Northwestern University and the University of Chicago organize their MBA programs and what differences are to be found among students as a result. I have, in fact, used White's study as a model here and have drawn on some of his conceptual categories for sorting out my own data. The similarity of contrasts between Harvard and MIT and between Northwestern and Chicago respectively are striking. I do not think this artifactual either for I suspect the same contrasts would appear between the business programs in such hypothetical pairings as Stanford and UC Berkeley, Columbia and Wharton, and Dartmouth and Cornell. Nor do I think students always (or even frequently) enter any given program with great knowledge and forethought about what the program looks like sociologically. Self-selection may explain some of the results but not all. Indeed, on virtually all demographic dimensions the only real difference I can detect between the students in the two schools of my interest is that some go to Harvard and others go to MIT.

school will complete a two-year course of instruction without meeting another Harvard student outside those already enrolled in the B-School.

The education of students at Harvard is organized by section. Each entrant is assigned membership in one relatively large section consisting of 70 or so students. Akin to jolly coppers on parade, during the first year all students in the 11 or so marching units must take, in lockstep, the same classes, in the same order, at the same time, with the same 70 fellow marchers. Identical academic tasks face all members of a given section so that whatever educational problems a student encounters are problems at least nominally shared by every other member of that section. As a result of what is seen as both good sense and gentle but persistent faculty urging, the vast majority of students at the B-School form within-section study groups as a way of handling what is almost universally regarded as a very heavy work load. So heavy is the perceived work load that legend has it more than a few Harvard students all but officially cut off pre-business school ties with friends, lovers, and kin outside their cohort until they discover that whatever personal worries they have about "hitting the screen" (i.e., flunking out) are unfounded or, more seldom perhaps, until all the dreaded first-year hurdles are cleared. Relief comes in the second year when only one course is required and the remainder of a student's course load is filled by electives. Yet, even in the second year, section ties often persist and many students continue to take the same classes, in the same order, with many of the same first-year section colleagues.

The operational or classroom format of B-School education also has its distinctive features.[9] In most classes, students sit behind nameplates

[9]Some would no doubt argue that the most distinctive feature of a Harvard classroom is one I ignore here, the case method (and the slightly cynical "casemanship" norms that arise among students in response to the case method). I do not wish, however, to enter into pedagogic debate as to what the case method can and cannot do for (or to) students who are exposed to it. Suffice it to say the case method *per se* does not distinguish Harvard as much as does its mere ubiquitousness (at Harvard, about 10 to 15 cases per week during the first year). MIT students talk and write cases but cases are not so much a part of their daily diet as they are at Harvard. Even so, I am reluctant to also argue that just because Harvard students are continually asked to answer the classic case query, "what would you do if you were Mr. So-and-So," they are any more likely to react to their respective institution so differently than MIT students who are continually asked to solve, model, or predict problems within a business context. Nor is there anything about cases that requires the batch processing of students at Harvard or anything about models that requires the unit processing of students at MIT. From my perspective, I think one could easily switch the curricula of the two schools and, if everything else remained in place, the results I report here would still stand. It is not the case but the culture in which the case is worked that matters.

in spacious, multitiered, horseshoe ampitheaters functionally arranged so that every student is allowed an unobstructed view of most every other student in the section as well as the instructor in charge of the class who works the students from the "pit."[10] From the pit, there is a conscious effort made by many faculty to mention each student's name nearly every time he or she participates in class. Participation is itself a prominent evaluation criterion used by the faculty in grading students. For ease of scheduling, several section classes are often held back-to-back within the same classroom during a term, thus promoting a degree of student ownership and comfort in the room while "visiting" faculty rotate through.

Given such intensive exposure to one another, it is little wonder that students come to appreciate and know very well, indeed, virtually all their section-mates. They not only observe one another continually during the school day, but they study, party, and more or less live together after the school day ends. From the classroom to ski trips, harbor cruises, sun bathing at Baker Beach, end-of-term-bash, or the ubiquitous intramural sport programs, student life is remarkably partitioned at the B-School. Although tight friendship networks are hardly section wide, sections do come to possess something of a collective identity (e.g., the friendliest, the jocks, the brightest, the most social, the hardest working, or, more common perhaps, the best). Students can, and usually do, support these images in everyday conversation by contrasting the characteristics of their own sterling section to others in the school who are, more often than not, found wanting for various and sundry reasons.

Downriver, MIT's Sloan School, while considerably smaller in size, organizes its educational mission in far different ways. There is no sectioning of entering students at MIT, although the 150 or so student

[10]Instructors must look up to students in more ways than one. Performance in the B-School pits are closely monitored by the school and professional classroom competence is, in many ways, judged by whatever student ratings a faculty member can manage to obtain. Core courses are the mainstay of the school and are put together by faculty committees who decide what cases to use, how to use them, and where in the class syllabus they properly fit. There is some discretion for the teacher at the core, but not much. Cases also come, for the faculty, complete with teaching notes designed to suggest to instructors just how a particular case might properly be presented. Teaching seminars for new faculty, incentives for course development, relatively generous support for case research and writing, an extensive audio-visual library of teaching materials all suggest the importance placed on teaching at Harvard. If life in the pit is a source of student anxiety, consider what it is for the faculty who must occupy it—particularly for those who are untenured. See Hall and Bazerman (1982) for a slightly more generous (and laudatory) treatment of the way Harvard generates "good" teaching.

class size might allow for a few sections of the Harvard variety. Beyond the modest (some say tacky) snack-bar and student lounging areas, there are no special business school facilities or dormitories. The buildings that house the Sloan School also house MIT's economics and political science departments. Few courses are restricted solely to Sloan School students. In fact, about 25% of the enrollment in most courses taken by Sloan master's students consists of non-Sloan students.

One rarely sees nameplates in MIT classrooms, and classroom participation is either an insignificant or nonexistent portion of a student's grade in all but a few classes. As might be expected, attendance norms at Sloan are far more variable than at Harvard where one's absence is sure to be detected quickly by one's section mates, if not the faculty. Throughout the school day, MIT students continually shuffle between classrooms and, until this fall, they shuffled (some ran) between classrooms located in campus buildings as far apart as a half mile. Class size varies considerably by course, as do assignments any one student will have due the following day (or week, or end-of-term) compared to any other student in the school. Students, therefore, are free to spend as much or as little time on a particular task (or class) as they think that task (or class) warrants, since for any given assignment there are few acknowledged norms to surround and define the "proper" amount of effort to be put forth. There are also differences in the time students are required to spend in class. Although the number of classes required for graduation is roughly the same, Harvard students are expected to spend about one-third more hours in class than those at MIT.

As is the case at Harvard, almost all entering students at MIT graduate on schedule. But, at MIT, the routes taken to graduation show greater variance than at Harvard in terms of the classes students take (both in number and variety) and the order in which they are taken. The open-ended nature of MIT's program guarantees that students must individually organize and selectively attend to the work tasks set before them by the faculty in the classroom and by the school in terms of its program requirements. As if to punctuate these differences, MIT requires from each student a Master's Thesis and a declared area of concentration. Harvard does not.[11] The task structure at MIT results in

[11]The closest analogy at Harvard to the MIT Master's thesis is the research paper students must write in their second year. In character, however, the Harvard students' research paper is invariably a group project for which a group grade results. The declaration of a major (concentration) at MIT is not something the school places on a student's degree but it is something the school offers and students accept. Moreover, most students conspicuously note their concentrations on their resumes since they are

a rather personalized educational experience and, among the students, there is relatively little recognition of common problems and virtually no recognition of what might be common solutions (i.e., enduring study groups) to whatever dilemmas the master's program entails for those who pass through.

On the basis of these sketches of organizational or structural dissimilarities, some tentative cultural descriptions can be offered. The point to be kept in mind of course, is that the shared understandings that differentiate Harvard and MIT students represent cultures of orientation students take with them to the various businesses they enter upon matriculation. Although both institutions are preparing students for managerial careers, the cultures of orientation they pack for their graduates to take with them are noticeably distinct. Consider Harvard first.

There appears to be a uniformity of impact regarding life at the B-School. Students seem to love and hate various aspects of the curriculum, but do so together. There is also something of a "collective paranoia" or "siege-mentality" that characterizes the early experiences of students in the school. Because many students are at least initially convinced that the faculty is highly organized and "out-to-get-them" (alternatively, "out-to-change-them") a sort of us-versus-them spirit results (no doubt nudged along by the heavy work load students believe they carry). Such spirit strengthens section ties since section members are all more or less in the same boat. Collective solutions to common problems are the result, and information sharing norms are highlighted even when such norms are discouraged openly by faculty members with ceremonial exhortations to "do your own work." While apparently rare, such invocations of naked individualism are duly noted by many students, and then promptly disregarded.[12]

convinced that it will help get their managerial careers off to a good start. Harvard students may also concentrate—and many, if not most, do—but they would be unlikely to admit to having done so on something so public as their resumes. In contrast to MIT, Harvard students believe a declared major can only harm, not help their job hunts. By and large, these belief systems are self-fulfilling.

[12]Cases in point are the legendary and infamous WACs, "Written Analysis of Cases," due roughly every other week for first-year B-school students. Although discussion is permitted among students, WACs are intended by the faculty to be individual assignments. While some students argue that discussions on these cases among section mates or among study group members are usually cautious and guarded ("you don't give away your best ideas"), other students argue that they would never hold back since past obligations may be due and the fear of the future is too great ("who knows when you'll be coming up short of ideas yourself"). All agree, however, that WACs are superb devices for focusing one's attention. That everybody's attention is focused on the same thing at the same time is but another instance of the common and collective theme at Harvard.

Within Harvard sections, impression management skills are highly valued, wherein the human relations necessary for cooperative effort—even among those (or especially among those) who detest one another—must be sustained over the long graduate school haul. Particular problems are many, but considerable effort apparently goes into "pegging production" by controlling both the rate-busters who could make other section members look bad, as well as rate-shirkers who might draw unwanted faculty attention to the entire section. By applauding, booing, or even hissing, it is relatively easy (however crude) for a well organized section to scheck the classroom antics of potentially deviant members. Moreover, according to students, study group norms develop in a like manner to help members control those ever-ready workaholics, who would keep the study group grinding away around the clock, those after-class commandos who would suck up to a professor at the expense of those not so sucking, or those equally deviant gleaners or leeches in the study group who would absorb group efforts without reciprocation or contribution.

At any rate, it appears that, for most students, life at the B-School is rarely lonely. Most students usually know what nearly everyone else in their section is up to at any given time. The social context surrounding activities, both in and outside the classroom, promotes high visibility among students through what Thorstein Veblen (1899) might regard as "invidious displays." The competition at Harvard may be peaceable on the surface and savage underneath, but it is a form of competition kept in check by the simple fact that students are convinced that if they each are to do well in the program, they need one another (e.g., "thou shalt not cut down one another in class"). Indeed, student groups themselves are typically formed not on the principles of characteristic similarity or shared interests (though these may quickly develop or be discovered) but on principles of mutual disinterest, such that most study groups represent a planned and clever mixture of individual skills, each applicable to different domains of the curriculum. In this sense, the organization of the B-School produces (and reproduces, year after year) a fairly dense, encompassing, collegial culture wherein the student collective exercises considerable influence over its members and, some would say, over the faculty as well.[13]

[13]This is not to say that everyone is equally well integrated within the culture. Certainly subcultures of varying size and composition exist within the school and within sections (e.g., carpoolers, married students living off-campus, "genericists" with overarching perspectives on business problems independent of industry or firm, such as would-be consultants or investment bankers, "floor polishers" with industry and firm-specific views who actually enjoy the so-called soft, bullshit courses emphasizing the behavioral

Sloan School students experience and report very different influences. If togetherness and normative consensus mark Harvard, relative isolation and normative dissensus characterize the occupational socialization at MIT. Competition, while certainly present, tends to be inward or self-directed. Guilt, as compared to shame, is a controlling sentiment at MIT, serving to animate and usually motivate individual students. In contrast to Harvard, students at Sloan have relatively few opportunities to perform in front of their classmates. Moreover, students can only compare performances within particular classes and must invent standards for comparison across classes since the self-selected instructional programs of fellow students vary. What can be compared, however, is largely written work or grade. Both, of course, are of the sort that if students wish to keep their performances private, they can easily do so.[14]

Friendships appear to be almost accidental at Sloan, based more upon common interests outside the classroom than problems or interests shared within the program. In general, students seem relatively more obsequious to the authority of the faculty at MIT than at Harvard. The Sloan faculty, it seems, has been able, successfully, however unintentionally, to divide and more or less conquer the student body. The numerical strength and sentimental ties necessary to challenge school policy or practice effectively is seldom present among

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aspects of management, students who share similar recreational predilections such as skiing, partying, or drug use, etc.). Even small countercultures are visible (e.g., leftists, environmentalists, women's rights advocates, libertarians, etc.). Deviance from the general pattern is not widespread, but the mere presence of such recognizable groups suggests that at least some students adopt alternative lines of thought and action during the years of their business school education and, more importantly, have found some social support for doing so. Perhaps more problematic (to students and faculty alike) are those social isolates who, for a variety of reasons, do not seem to find any grounds for mutual association with fellow students. Orth (1963) evocatively points to the problems of social isolation at Harvard and notes that such students are more than three times as likely as their peers to be in serious academic trouble.

[14]To consider shame and guilt as controlling sentiments at Harvard and MIT raises far more questions than can be answered in this paper. Suffice it to say, shame is more likely to be a social control device when groups are relatively isolated, fixed, long-term, valued, and institutionalized such that there are public rituals, totems, supporting insignia, heraldic imagery, inside-outside lineaments, and so forth. Guilt is more likely when social organization is highly differentiated by abilities, temporary associations, and where there exist multiple sources of status, loyalty, purpose, and affection. Meanings attached to public events in differentiated systems are less condensed, redundant, and ritualized (Bernstein; Elvin, & Peters, 1971). In this sense, matters such as success (or failure) are communalized at Harvard, individualized at MIT; a matter attesting to the worthy (or unworthy) character of the section at Harvard, and of the worthy (or unworthy) character of the person at MIT.

the students at MIT. Of some importance, too, is that at MIT most classes are taught on a one-faculty, one-class basis so that the grounds students might otherwise possess to compare faculty and their educational products—presumably of some concern to students—are, at best, foggy. Compared to Harvard, students at MIT are seldom bothered at the same time by any particular aspect of their graduate programs and, even if they were, there would be no organization in place (other than that explicity condoned by the school) through which insurgency might be effected. If nothing else, by sectioning students Harvard also empowers them.[15]

Impression management skills, while obviously of value when carving out instrumental and expressive links with other studens on campus, are of relatively less importance at MIT than Harvard. Because various school-based or classroom groupings at Sloan are temporary, shifting, and subject specific, getting along with one's classmates is situationally defined, sometimes important, sometimes not. This is not to say that students as a whole neglect their immediate human condition, or that they are in any way socially flawed or interpersonally incompetent. But it is the case that arrogance, abrasiveness, slyness, rudeness, withdrawal, and sophomoric forms of personal display are relatively easy to tolerate when attachments are known to be fleeting and limited to only one class (and then only for whatever time remains in a term). By and large, MIT students would never think of booing or hissing the public foibles of a classmate. They may be disgusted by

[15]I must qualify things a bit here since all I mean to imply is that Harvard students are more organized than their counterparts at MIT, and hence have more potential power. Such power is not necessarily put into practice, although the ways it can be used are many: through student representatives on faculty and administrative committees (Harvard has a significant edge over MIT in this official power category by virtue of its greater number of representatives in proportion to the faculty); through the class and instructor rating systems (while also present at MIT, these ratings have less bite since faculty careers are based far more on research productivity than teaching performance); through calculated section-wide classroom behavior designed to shame, embarrass, or even humiliate a given instructor (possible at MIT but less likely because of the weaker student ties in any given class); through rare (but nonetheless frequent enough to be commented upon by students and faculty alike) first-year revolts designed to redress section or class-wide grievances (virtually unheard of at MIT). More generally, neither the B-school nor the Sloan School are noted for their restive student bodies or the great issues these student bodies infrequently choose to challenge (e.g., food quality, class scheduling, unpopular instructors, and specific class requirements). Nor do highly visible, outspoken student leaders frequently emerge in either setting. (There is, from the student's perspective, too much at risk—the golden passport—for one to joust with the faculty or administration). From the faculty point of view, both institutions have their share of "attitude problems" but such problems tend more often than not to simply go away without great fuss or collective commotion.

what is going on, as is the case when one eager-beaver dominates a classroom discussion, but they would rarely, if ever, act collectively to bring it to a halt.

What is valued at MIT is individual performance in those courses thought by the students to be tough and demanding. Performance champions in these courses emerge with reputations and ascribed characteristics that are respected but not necessarily envied by the cohort group. The overall adjustment of students is one that heightens the individualistic and differentiated responses of the student body. Collective solutions to common problems are few and far between, and the students who learn best are apparently those who do so on their own. Although individual students may try to "psych-out" particular faculty members and then give them back on assignments what they think they want, such information would typically be kept quiet and not passed on down the student line. Successful "psyching" will not break student ranks at MIT because there are no ranks to break.

All of this is, of course, overdrawn. There are commonalities in both settings (based largely on how students think the ideal, "never indecisive," "confident" manager should behave). More crucially, however, individuals vary in both settings, as do personal responses. But, insulated by heavy schedules and suffering from common woes not easily grapsed by those not currently sharing similar problems, students moving into either Harvard or MIT adapt to their respective tasks and organizations in ways that go well beyond personal explanations. There are different cultures here, and these cultures are the result not so much of idiosyncratic choice, curriculum, or the entering goals and talents of each class, but of the systematic organization of the student s life and education. In this light, it is hardly farfetched to suggest that the skills and, perhaps more importantly, the values graduates take with them as representatives of the Harvard or MIT culture of orientation, as well as the sorts of jobs and careers that prove attractive to them, are quite likely to be, on average, quite different.

Independent of coursework, personal background, areas of concentration, or those well-honed technical skills developed in both schools, MIT and Harvard graduates will seldom bring similar interests, abilities, and learning preferences to the corporate worlds they join. On average, Harvard graduates are more likely to find large, Fortune 500 companies attractive, especially those which emphasize managerial teamwork as the key to career advancement. MIT graduates are responsive to rewards claimed to be linked to individual performance. Teamwork and group-based management practices hold relatively little fascination for Sloan graduates for whom such phrases have, at best,

ambiguous meanings. Staff positions, technical consultant roles, small firms, risk-seeking, high-potential-growth companies are those likely to attract higher percentages of MIT than Harvard graduates.

Placement statistics bear out these differences. For example, in 1982, small firms gathered up 40% of MIT's graduates, compared to 11% of Harvard's graduates. For large firms the figures are reversed, with 67% of Harvard's class choosing to work for big organizations, compared to 48% of MIT's class. In terms of functional breakdowns, the picture is less clear, but still in the expected direction since more Harvard graduates report taking general or project management positions than MIT graduates (47 to 34%, respectively).[16] Moreover, recruiters (perhaps the most knowledgeable observers of MBA's) sharply contrast the graduates of the two programs. Kahn (1982) presents impressive evidence giving Harvard students a wide edge over Sloan students in the eyes of recruiters in terms of their perceived interpersonal skills, aggressiveness, and candidacy for general management. (The edge is reversed when analytic competence and managerial techniques are considered.) Harvard graduates are also thought by recruiters to learn more from their classmates and fit more easily into work organizations than their Sloan counterparts.

It appears, then, that the academic culture nurtured, if not farmed at MIT, favors the growth of managerial specialists, interested, at least at the outset of their respective corporate careers, in planting their own rather fully developed technical skills within managerial fields. In contrast, Harvard graduates come to appreciate not only their fellow graduates (as do MIT alumni), but also what is seen by them as the roundedness and generality of their managerial education. Certainly, after listening to so many section and study group discussions in which members offer up their own certain, well thought out, and sometimes carefully rehearsed views on the problem at hand, it is no surprise that Harvard graduates are convinced that the so-called Big Picture cannot be grasped by any one mind, no matter how enormous, inventive, or

[16]These remarks are based on archival (placement office) materials collected at both institutions. The category systems are identical. The career choices reflected by the data are not merely artifactual since the firms recruiting at both MIT and Harvard are numerous and, with few exceptions, overlapping. On average, students in both institutions report receiving three to four serious offers on graduation. The number of job interviews is, of course, much higher; often higher by a factor of 10. To see students in their "interview suits" during the second year is a common and everyday event from late fall until March or April. By early spring, however, the wearing of the interview suit becomes increasingly a minor stigma signifying that the wearer may not yet have a suitable job. Needless to say, formal analysis of these data await another analyst with proper motive, resources, and roots in the land of Chi-squaredom.

quick that mind might be. If the section or study group helps one prosper in school, management teams and an inquisitive, pragmatic, cooperative spirit should help one prosper at work. That neither orientation derives from only the coursework or educational materials to which students are exposed is the central point of this discussion. Both orientations, I would argue, stem largely from the social context manufactured and supported by each institution's very distinct culture-building and culture-maintaining organization of student life.

Making Rank: Station-House and Street Sergeants[17]

Consider now an example of role and status passage. In particular, consider how the cultures of orientation carried by recruits to a new organizational role shape the way they carry out and define their new tasks. Emphasis in this section is placed not only on the diversity of understandings surrounding a given role contained within one organization, but also on tracking down the sources of this diversity. The specific role examined is that of police sergeant.

Big city police agencies in the United States recruit lower and mid-level supervisory personnel from within the organization. Police sergeants are the most numerous of low level managers in these organizations. They are assigned most frequently to the largest division of police agencies, the patrol division. Within the patrol division, sergeants are responsible for the work of territorially-based squads comprised of five to 25 police officers who rove about "their" beats in one-man or two-man cars. Much of what squad members do on patrol they do out of sight of their sergeant, and do so not at his command, but at the request of radio dispatchers.

Despite this apparent loose-coupling (or, perhaps, because of it), there is, nonetheless, considerable reciprocity standing between the actions a sergeant may or may not take in regard to the actions his charges may or may not take. He is dependent on his officers to answer dispatched calls promptly and with a degree of courtesy, to meet departmentally established and personally set quotas (e.g. arrests,

[17]Materials in this section are derived from my own participant-observation studies of the police. The work began in 1969 and continues to draw me to the field today. I have discussed my mostly ethnographic methods at some length elsewhere (Van Maanen, 1978, 1979) and will not trouble the reader with the details here. Much of the sergeant data appears in more elaborate form in Van Maanen (1983). Comments regarding the structure of police agencies and the official role of sergeants within them are relatively well established but a suspicious reader who wants to check my assertions might sample from the classic works of Bittner (1970); Black (1980); Bordua and Reiss (1967); Manning (1977); Muir (1977); Rubinstein (1973); Westley (1970); and Wilson (1963).

tickets, and field investigation reports) and to accomplish such work smoothly without causing untoward concern for the squad and its members (including the sergeant) among the public or others in the department. Patrol officers are dependent on their sergeant for small favors that are his to hand out (e.g., time off, easy duty, and overtime assignments) and for protection from the consequences of the mistakes they will, in good faith and bad, make.

The selection of sergeants is a one-at-a-time, examination-based process. It is governed in part by local Civil Service Boards, and in part by higher officials in the police agency who combine, in sometimes inventive ways, various performance measures (e.g., test scores, interview rankings, educational records, military service points, and seniority lists) to produce an ordered list of candidates every two or three years. From the top of this list, sergeants are selected as needed by the Chief of Police, in consultation with trusted or, sometimes, merely obligatory advisors. Discretion is allowed, but there are normative constraints about dipping too far down the list of eligibles for selections. Few agencies provide any training whatsoever for newly-selected or would-be sergeants. First assignments vary, of course, but most sergeants can expect initially to be given the least desirable shifts, the least desirable squads, in the least desirable locations of the patrol division.

On the basis of these structural characteristics, the sociologically inclined might suppose that new sergeants will approach their roles in divergent, creative, situationally-responsive and particularistic ways (Van Maanen and Schein, 1979). This corresponds to the belief systems of police officers on these matters as well. Patrol officers, in particular, talk about and personify their sergeants in highly individualistic terms, taking care to point out to an interested listener the wide variety of sergeant proclivities:

> Now you take Sergeant Johnson. He was a drunk hunter. That guy wanted all the drunks off the street and you knew that if you brought in a couple of drunks a week, you and he would get along just fine. Sergeant Moss, now, is a different cat. He don't give a rat's ass about drunks. What he wants are those vice pinches. Sergeant Gorden wanted tickets, and he'd hound your ass for a ticket a night. So you see, it all depends on who you're working for. Each guy's a little different.

Such views, however, have their limitations. Claims of idiosyncracies run on the surface, representing something of a collective rationale patrol officers whistle to one another as they go about various tasks

they consider to be mere peculiarities of a given sergeant. But, there is also another tune they whistle, and this tune corresponds to a recognized, deeper structure associated with the performance styles and standards of sergeants. It is this latter structure that reflects the culture of orientation idea, for it is a structure related intimately to where in the department a given patrol sergeant has come.

There are two basic paths followed by police officers who wear the three stripes of a sergeant. One path is interdivisional and experientially diverse, involving an officer in various functional areas of the department. The other path is intra-divisional and experientially singular, involving an officer in assignments limited to the patrol division. The former path brings officers into everyday contact with matters of administrative concern in the department. Paperwork, planning, record keeping, public relations, investigatory procedures, fine points of the law, statistics, data banks and files, clerical responsibilities, inter-organizational relations, case loads, report generating, program development, grant getting, and project monitoring are all examples of matters of some importance to many police officers who, without benefit of promotion, have, nevertheless, moved outside of the patrol division and become embedded in the administrative or managerial culture of police organizations. The latter path is marked solely by membership in the street or field culture of policing, a culture distinguished by its disdain for administrative concerns and its emphasis on action, crook-catching, independence, street smarts, and intense peer relations centered on the importance of supporting one's mates, both physically vis-a-vis the villains of the street and socially vis-a-vis the brass of the department. While all new sergeants have at least modest exposure to and involvement with the street culture of policing, not all new sergeants have exposure to and involvement with the administrative culture. And, herein lies at least a partial explanation for the diversity of role performances among sergeants.

Some sergeants (the majority, in fact) are regarded by patrol officers as "station-house" (or "precinct") sergeants. When on duty these supervisors are seemingly always at or near their desks, hence the generic tag, station-house sergeant. Nicknames are revealing here. Station-house sergeants are known to patrol officers by such titles as "Hats-on Harry," "By-the-book Brubaker," "Off-at-seven George," "Fixed-post Porter," and, my favorite, "Edwards, the Olympic Torch who never goes out." What these sometimes endearing, sometimes cutting, monickers suggest is a work style well understood by those subject to its whims. Because they are firmly fixed to their administrative work stations, these sergeants become obvious to patrol officers by their avoidance of specific entanglements outside the "office" in the

often messy world of hands-on policing. In line with such avoidance, station-house sergeants define their roles in terms of standing behind the men assigned to them and being responsible for their conduct on the beat. This is a managerially-approved definition, and station-house sergeants are quick to point out how difficult it is for them to motivate their men to fulfill their quotas, properly fill out their reports, stay in line with departmental rules and regulations, and answer their calls within tolerable time limits. It is a fairly formal, relatively distant, supervisory style that is enacted by station-house sergeants and it is a style best seen in contrast to their counterparts, "street sergeants."

If station-house sergeants are believed to stand behind their men, street sergeants are believed to stand alongside of them. It is a collegial role that is enacted, and it is enacted not behind a desk or in departmental offices but on the streets where calls are taken, arrests produced, coffee inhaled, and the mundane to dramatic rituals of policing acted out. Street sergeants also have their share of revealing titles: "I'll-take-it Sam," "Billyjack," "Shooter McGee," "Radio-free LeBaron," "Peeping Tom," and "Walker the Stalker." These handles reflect the behavioral predilections of street sergeants such as their presumed preference for live (in police parlance, "on-view") action, their tendency to override or otherwise horn-in on calls originally assigned to a particular patrol unit, their distaste for official departmental procedures, and so on. Street sergeants define their mission not in terms of their responsibility for the men of their command, but in terms of their responsibility for the beat or territory they command. When asked about the objectives of their jobs, they are likely to respond in ways quite similar to those whom they supervise—"keeping a clean patch," "getting the bad guys," "holding the line," or, more generally, "not letting the assholes take over the city."

Of most concern here are the cultures of orientation that account for these contrasting approaches. Street sergeants typically come to their new roles directly from the street culture of police organizations where most police administrators are far more remarkable for their absence than for their presence in the field. Moreover, when assuming the new role, many parts of the old role remain both present and relevant. A car and dispatch code are still assigned to a sergeant, personally assigned turf is again provided (albeit, a larger one, encompassing several beats), the same uniform is still worn even if there are extra stripes on the sleeve, and, from the street cop's perspective, the assholes are still out there roaming about, uncaught and untaught. It is hardly surprising that without much exposure to differing kinds of police roles and the "hands-off" celebratory character that marks the transition, the new

sergeanting role is adopted in a fashion so similar to the way the old patrol officer role is played.

Station-house sergeants, however, typically move into their roles from a position existing within the administrative culture of police organizations. They have typically been out of uniform and the patrol division ("out of the bag") for some time and have become more or less accustomed to and, critically, come to value the managerial or bureaucratic dimensions of police agencies (e.g., budgets, plans, reports, standard operating procedures, and targets). They have worked more closely with those occupying the higher ranks of the agency than is possible for those in patrol and, in general, have begun to appreciate the logic embedded within the administrative tasks they have been assigned (i.e., rationality, efficiency, predictability, accountability, and discipline). It appears also that those officers outside the patrol division who claim serious aspirations to the sergeant's role (in police talk, "wannabees") have also begun to develop a rather deep suspicion of their all-too-canny former colleagues in the patrol division who are "out there" on the street, out of view and, perhaps, out of control as well.

It is not the case, however, that patrol officers necessarily prefer one kind of sergeant to the other. Both role orientations have their faults. Street sergeants, for example, are often seen to poach, to undersupervise while generally making nuisances of themselves by denying some of the vaunted autonomy patrol officers believe is their due in the field. At the same time, station-house sergeants are thought to be preoccupied by the rule book and, thus, unappreciative of the situational particulars which, to patrol officers, render rules and regulations irrelevant, inappropriate, and sometimes downright dangerous when used as guides to practical action. Patrol officers may take exception to both on-view judgements of street sergeants, and the retrospective counts of activity made by station-house sergeants.

On the other hand, street sergeants are thought to know the score; to know what is "coming down" on particular beats and, hence, be far less persnickety about the legal niceties surrounding police work. Station-house sergeants have their good points too. They can almost always be located when questions arise and reports need adjustments or signatures; they typically have more intradepartmental clout, useful when a patrol officer would like a change of shift, precinct, or partner; and they tend, on average, to have more small favors than street sergeants to dispense to those officers they believe more deserving than others. For those on patrol, station-house sergeants are, therefore, somewhat easier to work for because their behavior is more

predictable—although the grounds for such predictability may strike many officers as patently ridiculous (e.g., writing misdemeanor drinking-in-public tickets as a way of staying on good terms with a given sergeant). However, no matter what a particular and always peculiar patrol officer's feelings about a given sergeant, all would agree, whatever a station-house sergeant is, a street sergeant is not.[18]

Obviously, the whole story is not woven by using only these two yarns. Individual personalities are involved, extra-curricular interests play a part, family and educational backgrounds matter, and, for some sergeants, the paths taken into the role are circuitous, moving in and out of the patrol division, and not nearly so pat as my examples suggest. Nonetheless, it is true that the administrative and street cultures of police organizations are recognized by sergeants and their men alike. Not only are they recognized, but sergeants typically perform their roles in ways consistent with one culture and, hence, opposed to the other.

The central point of this quick insider's look at the work of police sergeants and the process of becoming one is to again demarcate the relevance of the culture of orientation possessed by recruits as a way of understanding how some new roles, in this case organizational and occupational ones, come to be defined and carried out. The upshot is the necessity to look backward from the assumption of the new role to the lessons learned by a recruit in the old role. To understand how a sergeant is made is to understand the orientation a man brings to the new bundle of tasks he must perform as a sergeant—a bundle that, of course, for many, turns out not to look so very new at all. In most police agencies at least, virtually no efforts are made to correct for whatever supervisory task, value, and performance perspectives the previous role may have engendered. I suspect this situation prevails in far more organizations than just those of the police.

[18]I am certainly not the first to remark on the hostilities exhibited between members of these two cultures of policing. In fact, the Ianni's (1983) have a book on the subject. Closer to the level of detail I find most attractive, however, is the observational work of British sociologist Michael Chatterton (1975; 1979). This work is extremely good and, as one might expect to be lurking behind my compliment, is mostly consistent with the observations I have made of sergeants in the United States. Punch (1979) also provides collaborative evidence on some of the matters discussed in the text based on his studies of the police in Amsterdam. Perhaps the most trenchant descriptions of street-level patrol work (called "the occupational culture of policing") are found in Manning (1977). The organizational culture(s) of policing of which, presumably, station-house sergeants are a part have been less well described although some feel for the agency-specific, managerial worlds of police officials can be located in Gardiner, 1969; Manning, 1980; Tifft, 1975; and Wilson, 1968.

Getting Up: Learning to Windsurf[19]

My final example draws on some felicitous observations of an increasingly popular leisure pursuit called "windsurfing" (a relaxation sometimes pursued with a vengeance that rivals middle-of-the-pack marathoners, video game fanatics, and rock climbers possessed of terminal glee). I include these materials here because they elegantly display—in an almost visual fashion—virtually all the theoretical devices I have employed in the discussion thus far. Unlike managerial education or police supervision, the basic skills of windsurfing are relatively simple, this quickly learned, always in a recruit's line of sight and, perhaps more critically, represent skills about which there can be little debate as to whether or not one has them. Yet even in this restricted context, several cultures of orientation are found. Each culture provides recruits with identifiable, yet contrasting, ways of learning to windsurf, as well as distinctive patterns regarding what is held dear by windsurfers once the skill is mastered.

Windsurfing (alternatively, freesailing, boardsailing, sailsurfing, windsailing, sailriding, sailboarding, surfsailing, freeboarding, *ad nauseum*) is a comparatively new sport. It combines elements of the traditional sailboat (although there is no rudder and no place to sit down) with those of the surfboard (although it is piloted by shifting one's weight and manipulating the elliptic boom that runs all the way around the sail set in the middle of the board). Novice windsurfers come to the sport from a wide variety of previous endeavors. Some have surfed, some have skied, some have sailed, some have done none of these, some have done all. Following Miller and Hutchins (1982), however, I will examine only three cultures of orientation, and, for simplicity's sake, will do so as if the memberships of each were mutually exclusive. This is a fiction of course, but not a serious one. Of more importance here than previous attachments per se, or the potential overlap among them, is the convincing demonstration that the culture of orientation notion is a worthy one. To accomplish this it seems reasonable, first, to show just what novice windsurfers bring to windsurfing on the basis of their past involvements and then, second,

[19]Materials in this section come from my own rare and awkward attempts at participation, some very informal observational ventures into the field, and, as always, lengthy interviews with informants. The key informant here is Marc Miller who, conveniently, is a friend, a cognitive anthropologist, and sometimes co-conspirator in research of mutual interest. He has also written down many of his musings on windsurfing. These are writings from which I have borrowed shamelessly. See, in particular, Miller and Hutchins (1982).

to display that whatever this is, it makes a difference. Consider first, the surfer.

Surf culture is identified with an anarchistic, free-spirited, do-your-own-thing, leisure ethic (Irwin, 1977, pp. 84-88). Its mass participation contexts are found on sunny Southern California beaches where the rhetorics of freedom-seeking, spontaneity, physical vigor, and outdoor pleasures are heard against a background marked by smog, urban sprawl, fear, ethnic heterogeneity and restricted space (Irwin, 1973). Surfers and dedicated beachgoers alike know how to be, in Edgarton's (1979) marvelous phrase, "alone together." Moreover, surfing is highly individualistic in the sense that personally customized boards and surfing styles are praiseworthy, that valued myths convey an imagery of the uncomplicated but intense solo surfer forever in pursuit of the ultimate wave and ride, and that most surfers have displayed a massive resistance to formal rules, institutionalized competition, and officially recognized organizations such as surf clubs (Irwin, 1973; Pearson, 1979). Reflecting this context, but more to the point, is that the only acceptable way to learn how to surf within the surf culture is to teach oneself (or, at least, to claim so). Help from a friend is acceptable, but to take lessons, in public anyway, would be to invite ridicule because it violates certain shared (and deep) understandings about how one should go about mastering the sport.

Windsurfers who have roots in the surf culture develop their skills in an analogous fashion. The culturally acceptable learn-it-yourself surfer method is transferred to windsurfing. Cognitive similarity is advanced, for example, by the shape of the board, the popular names of the activity itself, the observation that skilled windsurfers actually do sail into and ride breaking waves, and the endorsement of windsurfing or, more commonly, windsurfing equipment by the popular human icons of surfing (Miller and Hutchins, 1982). For the most part, the result is that surfers ignore and bypass available windsurfing lessons. Nor do they study up on potential techniques beforehand by examining the various "how-to" texts available in libraries, bookstores, and magazine racks. Surfers insist on teaching themselves to windsurf and being left alone to do so at their own pace, true to their own idiosyncracies.

Consider next another approach to learning to windsurf. Those who come to windsurfing from the ski culture value teachers, instructional programs, graded challenges, and certification of accomplishments. Skiers place faith in theories concerning the easiest, safest, and most sociable ways to acquire skills (Irwin, 1977, p. 41-44). Ski culture promotes the belief system that expert instruction, in contrast to self-instruction, saves time and advances good habits. Like surfers, skiers anticipate that some of the skills they already possess are transferable

to windsurfing. Balance, posture, twisting body movement, and the smooth shifting of weight while in swift forward progress are seen as cognitively similar to the kinds of creature motions necessary for windsurfing. Snow boarding and ice sailing are activities familiar to some skiers and, hence, may also promote cognitive ties to windsurfing.

Given such a culture of orientation, it is not surprising that skiers wishing to learn windsurfing do not reject outside help but, quite literally, insist on it. Instruction is sought and paid for without embarrassment. Moreover, skiers avoid skill level shame by typically surrounding themselves with other learners who are equally skilled (or, more likely, unskilled). Consistent with such actions is the belief that by taking graded lessons, they are learning to windsurf in the fastest, most efficient fashion. And, since the entrprise of learning to windsurf is a collective one, social ties, group activities, and the relatively common interests and styles that emerge from being in the same learning boat together have more than a little value for windsurfers from a skiing background (Miller and Hutchins, 1982).

Finally, consider how sailors approach windsurfing. If surfers are anarchistic and skiers are egalitarian, sailors, by comparison, are aristocratic, often looking down on those who do not share the mannered enthusiasm of astute cultural members or do not know their place in the sailing pecking order. From this perspective, the banzai cry of the surfer may be culturally analogous to the polite but reserved ring of the sailor's bell. But rest assured, such a cry will not sound easy on a sailor's ear. Moreover, sailors possess arcane knowledge captured by a technical lexicon, valued water traffic safety rules, appreciation for the fine theoretical points of sail dynamics, and elaborate indicators they hold as signs for such things as weather conditions and wind speed. Sailors also believe in the usefulness of books in much the same way skiers believe in the usefulness of lessons (Miller and Hutchins, 1982). A good sized library could be stocked entirely by books related to sailing.

Consistent with this culture of orientation, sailors report reading windsurfing texts and articles when first taking up the sport (Miller and Hutchins, 1982). Moreover, the performance expert in the sailing culture is the modest but successful competitor, the taciturn sailor who wins races. Racing is the valued test of sailing skill and this is one value that is easily transferred to the windsurfing context. Whereas the individualistic surfer might be spotted in some isolated bay on a windless day in zen-like repose aboard a craft barely moving, and the skier might be found amidst a cluster of sails heading in the same direction at the same speed, with the same style, the sailor might be

recognized only by what appears to the observer as a grim concern for outdistancing rivals along a carefully charted course marked by the ever-present buoys.

All this is to suggest what is perhaps obvious, but not often remarked on when socialization settings and processes are examined: given a degree of similarity between an old and a new activity, the new will be approached in much the same way as the old. Lessons learned in the past (the culture of orientation) are sure to have value in the future if the recruit is conscious of a similarity between the two, and no concentrated efforts are made by others to destroy or make irrelevant such cognitive ties.

Comment

What lessons, if any, can a reader pull from these brief snippets of cultural esoteria? I have several in mind, each dealing in some fashion with the analytic and descriptive importance of demarcating the continuity or discontinuity of recruits' experiences at given links in their socialization chains. Some links require recruits to undergo transformation rituals where they take on new perspectives toward the world and their role and position within it. Other links entail celebratory transitions wherein whatever cultures of orientation people carry with them into the new situation represent the main conceptual resource and skill repository to be drawn on when adjusting to the change in their life situations. Links of the latter sort represent occasions for doing new things in old ways and lead to my first tentative conclusion.

Organizational researchers have overstudied relatively harsh and intensive socialization and, as has been said before, understudied socialization of the more benign and supportive sort (Schein, 1961). A fascination with the sudden jolt, reality shock, and unforseen surprise marks much of the accumulated literature wherein recruits are shown to divest themselves painfully of much of the personal baggage brought with them into the new setting. Prisons, law schools, Ph.D. programs, concentration camps, police academies, self-help groups, medical schools, lengthy apprenticeship programs, boot camps, sales force training programs, cult indoctrinations, high schools, academic nursing programs, communes, even commercial banks in Japan where uniformed clerks come to sing each morning of strength, harmony, and profit, all represent good examples in this regard.

What is missing from the educational and organizational literature are equally detailed depictions of socialization designed (whether consciously or not) to invest in and, if anything, build on whatever

attributes recruits bring with them. In work organizations, for example, most promotional passages are ceremonial rites where warm handshakes and hearty pats on the back pay homage to the past accomplishments of the newly promoted. Recruits so welcomed are then ushered to new offices and left gracefully (perhaps gratefully as well) alone to do whatever it is they feel they must. Structurally, there is often not a peer group, a sage ancestor, or a helpful overseer of the office to be located who could offer hints as to what the newcomer might do with whatever problems come with the territory. Even in those circumstances where there are present a number of living and available guides to action, such guides often only provide aid when asked and do so in oblique ways that are difficult for a newcomer to decode.

Cognitively, the only recourse many newcomers have is to fall back on their cultures of orientation by seeking out explicit similarities (and dissimilarities) between the old and the new tasks. When we change jobs, schools, communities, and even families, we carry what we've learned before with us. To be sure, we redefine and update what we've learned but it is infrequent, even in the most disjointed of passages, that we are required to revise all our old understandings, or skills, or values at once. In this regard, words such as gradual, supportive, incremental, partial, integrative, smooth, and developmental come to mind when thinking about socialization. Indeed, the coherence of national, regional, occupational, and organizational cultures rests, at least partly, on the fact that when we are faced with puzzling situations we are usually able to remake our old understandings to meet the new circumstances so that conscious innovations are only a small variation on what came before (Becker, 1982, p. 587). When examining individual socialization chains, researchers will find far more links of the small change and confirming type than those of the big boom, disconfirming types.

Of particular relevance, I think students of organization and management are currently overimpressed with company socialization. Too little attention is being directed to managerial socialization as provided by business schools.[20] In the United States, some of these institutions, like Harvard and MIT, are increasingly creating and transmitting the

[20]There are, of course, exceptions to this general rule, but such exceptions are typically in the domain of attitude change studies conducted at a single institution (e.g., Schein 1967, 1968; Schein & Ott, 1962; Vroom & Deci, 1971; and Feldman 1976, 1981). Very little comparative work has been done with management students in different settings, although, like this paper, there is much speculation that the differences are quite likely to be unmistakable. Such studies are needed.

knowledge and skills on which managment practice is based and, by implication, are increasingly influencing the way managerial work is organized and carried out in the country (Schein, 1981). A critical literature has recently begun to accumulate, but what is rarely recognized in this literature is the great variety of managerial education currently available (Schein, 1972). Moreover, especially within the carefully screened, relatively insulated, residential management programs located in the elite universities of the land, contrasting cultures of orientation are being forged which may well carry their members through long organizational and interorganizational careers.

It is hardly surprising that we read in the sacred executive pages of *Fortune*, *The Wall Street Journal*, *Business Week*, and even in the vulgar, popular pages of *Time*, *Harper's*, and *Esquire* of senior officials in private and public organizations who complain loudly that their junior managers appear to them to be more loyal to their respective business school ways (and ties) than they are to the ways of their employing organizations (and, more pointedly perhaps, to them). The two years students spend in graduate school may be the longest and most intensive *in situ* socialization period they will ever again experience once they set foot on the various corporate escalators of their choice.

To understand how these managers work (and, by implication, how the organizations of which they are a part work), we must study (and study in fine detail) the cultures whence they come. Learning to windsurf, for example, hardly remakes the surfer or skier. If anything, it heightens the relevance of these identities for novices. Similarly, becoming a police sergeant merely affords another opportunity to fill out and exhibit an already well established slant toward police work. And, newly initiated managers from Harvard or MIT are unlikely to begin immediately dismissing whatever perspectives they may have picked up during their long, arduous, and costly professional education. Corporate socialization in its many disguises will, of course, continue to do its work on people. However, the point I am stressing here is that such socialization may not represent much of an ordeal or dismantling experience for organizational recruits since many of them will find comfortable and altogether confirming positions in industry that will essentially attest to both the appropriateness, good sense, and overriding value of their graduate training.

It is true that mild to bone-cracking culture shocks are not unknown to people as they traverse a given career path. The surfer who finds himself for some odd reason or another suddenly taking windsurfing lessons may soon develop an acute dislike for the helpful hints aimed his way by the cheerful instructor, as well as for the "let's boogie"

warmth radiating from his chummy fellow lesson-takers. Street sergeants may also discover that they must spend inordinate amounts of time on the precinct captain's carpet explaining, to their mutual chagrin, why this or that form was not properly filled out or why they have not been seen by the captain at their assigned desk since the last full moon. Harvard MBAs may think they are on Mars when they try to establish what they regard as a simple, integrated team approach to the building of a new computer if, deep in the organization, there exist those fiercely independent Pac-Man wizards of high-tech R&D who operate out of half-hidden but highly competitive skunk works, who don't seem to tell each other, much less a manager, any more than they absolutely have to. In all these situations, the culture of orientation is unlikely to get one very far. My suspicion is that because learning a new culture is anything but easy, withdrawal, retreat, anger, and resignation are the typical responses.

One consequence of potential culture clashes such as these is the adoption by recruits and agents alike of avoidance strategies. One strategy (and, I think, a common one) is to mobilize bias within and across organizations so that newcomers will more often than not resemble the veterans found in a particular locale. This is most clear in police agencies where station-house sergeants represent the numerical norm, outnumbering their street sergeant counterparts by a good margin (Van Maanen, 1983). Even more critical is the fact that as one moves up the police ranks it becomes increasingly unlikely that any officer will be found who holds even remotely to values common among street sergeants. A Pogo-like aphorism is apparent: "We have met the recruits and they are us." Harvard graduates will prefer their own kind, as will MIT grads. Sailors will prefer to windsurf with others who share their competitive tastes.

There is hardly anything new being said here, but what I trust I have provided is some further elaboration on the homogeneity themes prevalent in studies of corporate careers (e.g., Dalton, 1959; Kanter, 1977; Rosenbaum, forthcoming). To generalize a bit, orderly careers of those who move in line with organizational traditions tend to restrict sociability among those so moving in the sense that the like-minded and like-skilled come together over time. Sources of diversity within levels of organizations (and within functions) are driven out, not by the work of clever mindguards or manipulative social control agents, but by the self-selective and reproductive work of cooperating recruits and agents sharing, more or less knowingly and with some pleasure, similar cultures of orientation (DiMaggio & Powell, 1983). It would seem that one reason for the apparent absence of managerial innovation in many firms can be traced to the relatively long socialization chains through

which high-ranked officials must pass. The more checkpoints, the less likely much diversity will be found among those who make it through.

Socialization chains for most conventionally-defined professional careers (where checkpoints are relatively infrequent once school is left behind) depend in important ways on graduate training programs where relatively encompassing cultures of orientation are typically discovered by recruits to the profession. For example, where would-be physicians go to medical school plays a major role in their choice of hospital in which they will do their residencies (Bosk, 1979). Preferences for certain kinds of medical practice are influenced to the extent that students who do their residencies in university, research-focused hospitals come to have different career priorities and targets than students who do their residencies in community, patient-focused hospitals (Mumford, 1970). Residency choices reflect preferences developed by student physicians while serving as interns (Light, 1980). And so on. Most full time professional schools operate on the largely unquestioned assumption that the education they offer provides the grounds for competence and cooperation among those "properly trained" within the profession. Herein lies the rub, for "properly trained" is usually code for the skills, values and perspectives on the work emphasized within the culture of any given graduate school (or cluster of schools). As any professional knows, there are always wide variations in practice. What some take as fundamental technique, others dismiss as mystification. What some treat as judgemental or technical error, others treat as mere differences of style.

Cutting closer to the bone, any profession is, in Weber's (1954, p.181) savvy words, "a form of property on which a holder can collect rent and expand markets." Differences in the cultures of orientation within professions, school-based or not, are, therefore, hardly irrelevant to practitioners. Indeed, these cultures will reflect the rents professionals see fit to charge for their services, as well as the markets they choose to explore. The image sometimes conjured up, of a professional field in organization studies, is that of relatively independent practitioners operating in an externally determined, free-wheeling environment in which unexpected markets or niches appear and disappear. This image I think significantly distorts the social and proactive processes by which professionals attend to and enforce very different definitions for just who is, and who is not, "properly trained" (Van Maanen & Barley, forthcoming).

To provide some summary and closure on the unabashed culture mongering I've been doing in this paper, a word or two on the use and misuse of culture as an analytic concept is due. On the application of the term, culture is always present when people do something in line

with what they think they should do, and others recognize that what is done is, under the circumstances, appropriate. If all those involved have roughly the same thing in mind and act in ways that are more or less consistent with that image, a cultural product results (Becker, 1982). One such product is organization. Obviously, a given culture will not cover everything that people do in or out of an organization. In a firm it is not always clear just who signs what papers, who goes to the meetings in Rio, or who fixes this or that machine, just as in the family it is often in doubt as to who takes out the trash, who does the dishes, or who gets the children dressed for school in the morning and out the door.

What culture can and does do in these settings, however, is help shape the kinds of commitments and obligations people have toward one another, as well as help them define what sort of people they are and what sort they are not. When actions are required, people sharing culture will know what to expect from one another—even if they have not seen one another before. From this standpoint, culture is a problem solving device and, as I have shown, it is useful whether one is learning to windsurf, or becoming a police sergeant, or preparing oneself to work as a corporate manager for IBM or Wang.

On the misapplication of the term, culture is not a conventional social science variable in the sense that it can immediately be observed, counted, dimensionalized, yoked to a set of norms, or directly manipulated. It is more or less stored in a person's head and its practical use can only be inferred on the basis of what people use, say, and do. Moreover, it is most apparent to people only when it is not working for them, when standard practices beget unstandard results. The problem facing the practical actor in everyday life, and the cultural analyst alike, is similar to not missing the water until the well runs dry, or not realizing we need air until we are choking. Culture is implicit.

My own attempts to lay culture bare rest simply on looking for contrasts: to look for those cultural collisions that take place within or at the boundaries of organizations. Watching street sergeants deal with their station-house brethren is not only amusing, it is also rewarding in terms of learning about skills, practices, and preferences of sergeants in both camps. To the point of this essay, observing the liminal, betwixt and between position of recruits in the thick of socialization is crucially important in understanding how people take on roles or become something they previously were not. But, such observations, it should be clear, can only be understood insofar as the observer knows something about the cultures being joined or separated by the process. To the extent there is contrast, cultures are opened up. To the extent nothing much happens, culture comes together.

To close on this theme, an anecdote. A very shrewd answer was provided this fall by a student of mine whom I had asked to describe the MIT culture. Without hesitation, she replied, "Oh, that's easy. It's all the things we aren't tested on." Precious little as this may be, it is not a bad answer. In the context of all the preceding words and examples, we can be sure that whatever this phrase stands for, it will be dragged from school elsewhere, and attempts will probably be made to generalize the MIT culture and it's local variations laterally to situations seen as similar to those encountered at Tech. Perhaps attempts will even be made to generalize vertically, God help us, to life in general. The question researchers must ask, then, is how this culture, represented by "all the things we aren't tested on," aids or hinders our intrepid adventurer in any or all of the organizations she moves into after leaving MIT. Ultimately, this is an empirical question to which an answer must not be assumed.

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