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STRATEGY FORMATION IN THE UNIVERSITY SETTING

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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 (Doyle & Lynch, 1979; Dube & Brown, 1983; 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 & 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 up our hands at the infrequent use or abortive outcomes of explicit

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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, 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 the direct control of central administrators, while many important decisions emerge from collective and interactive processes. 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.

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 *pigeonholding process* divides the organization's activities into a series of standard components or programs which 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 relevent programs. In effect, each course is itself a standard program of the organization (as is each degree 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.

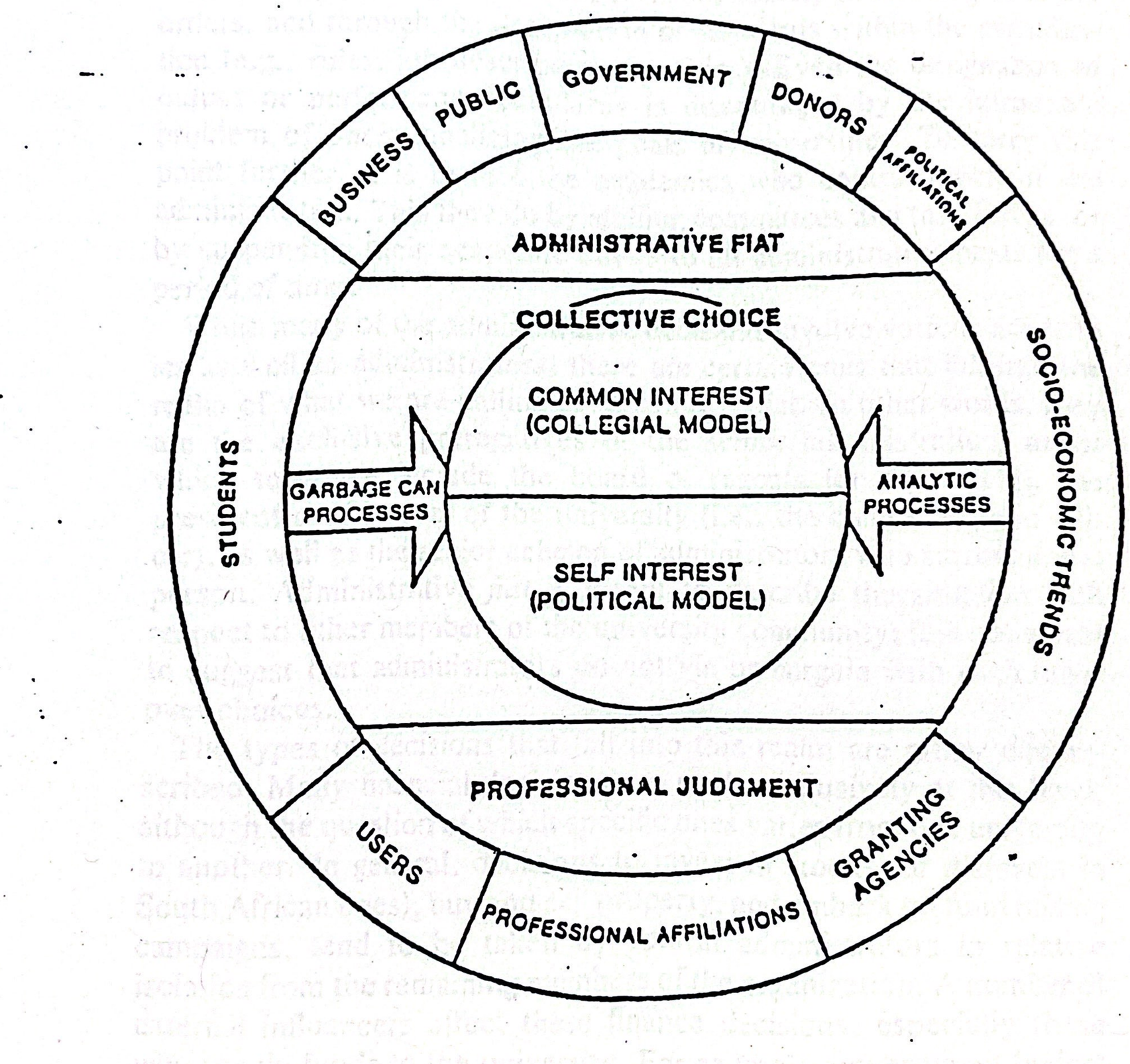
Within the domain defined by pigeonholing, what, then, does an individual professor control? Clear examples, at least when courses are not taught in multiple sections, would seem to be teaching method and materials, course content, books, grades, etc.; likewise for research conducted on an individual 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 *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. Professors of English literature are hardly less free of the influence of their implicit profession than are professors of medicine of their official one. 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, individual autonomy 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. Thus we have titled this section decision by "professional judgment", the implication being that while judgment may be the mode of choice (as opposed to bargaining or analysis), this is informed judgment, influenced by professional training and affiliation.

Other influences, of course, impinge on the choices of individual professors—student feedback can influence the size and nature of classes, corporations and general environmental trends can play a significant role in the selection of research and teaching topics. But no

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



force matches that of the implicit and explicit influence of professional affiliation.

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 committees and task forces, or by suspending their academic duties to fill administrative posts for a period of time.

While many of the administrative decisions involve 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.

The types of decisions that fall into this realm are rather circumscribed. 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. 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.

Because many of the support services of the university are organized in a conventional "top-down" hierarchy, strategic decisions concerning them 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. However, power over certain other support services more critical to academic matters—e.g., libraries or computers—tends 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 & 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—the need for speedy action, and the tendency to defer to the central leadership under extreme uncertainty (Billings *et al.* 1980). It may be, however, that once the immediate crisis passes, 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.

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 committees.

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. Given the complexity of decision making in universities, and the rigidities that result from the pigeonholing process, change is difficult to imagine without the individual "champion" or "sponsor" (Ladd, 1970: 205-206). We believe that professors are most likely to champion the creation of new pigeonholes, while administrators 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.

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, the issue will tend to be developed by *ad hoc* groups or task forces. Administrators may 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.

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. 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), and the *selection* of alternatives and solutions with a hierarchy of permanent groups (standing committees) as well as administrators and (in public universities), perhaps, government representatives as well.

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 which decentralizes decision making and provides opportunities for individual academics to intervene in the process. *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 *et al*, 1978) have dismissed collegiality in favor of 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). Clearly, this model can also be 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 *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). This is most likely when declining resources intensify competition (Hardy, 1983, forthcoming) or when dramatic shifts in the distribution of resources threaten the power positions of particular groups (Pettigrew, 1973; Mumford & Pettigrew, 1975). Under these circumstances, decision making is more likely to be political. 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 accomodate disparate goals.

In general, however, neither common interest nor self interest will dominate decision processes all the time: some combination is 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. 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. The very same behavior can be used for the common interest or for self-interest. For example, information can be hidden for the common interest (e.g., in tenure decisions to ensure objective choices: see Moynihan, 1980) or for self interest (e.g., to avoid personal embarrassment). It is difficult to distinguish collegiality from politics by

judging behavior alone. Successful politics often requires a collegial posture (Pfeffer, 1979), while changes that will ultimately benefit the institution at large may evoke conflict between individuals who have different conceptions of the common good. Thus, we distinguish collegiality and politics on the basis of motivation rather than behavior. The former refers to actions that 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 (McMillan, 1978, p. 8). (Note that the definition of politics in terms of 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: chapter 13.)

A third model which 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, 1978). 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. 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. 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. Thus, like common interest and self interest, uninterest neither dominates decision processes nor is absent from them.

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.

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. Thus March and Simon predict "that *almost all disputes in the organization will be defined as problems in analysis* and that bargaining (when it occurs) will frequently be concealed within an analytic framework" (1958, p. 131). But in the professional bureaucracy such analysis is likely to be fragmented, harnessed by and subordinated to the interactive processes. Individual professionals and groups will undertake their own analyses of issues which 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 which can be easily traced by those who are threatened by the information. Detailed responses, also expressed in rationalistic terms (i.e., counter-analyses) will 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 inherent analysts, practiced in the craft of rational argumentation through their research and teaching, also, no doubt, contributes to the tendency to react to issues analytically.

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 which are likely to contain considerable bias. It can be suggested (as Lindblom & 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 can even be used in a garbage can situation. It can 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 on 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 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 (that 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 assumptions of strategies as deliberate and determined centrally, it becomes evident, first, that strategies, as patterns, exist in universities and, second, that many actors participate in their formation in universities. 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).

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 professor to develop quite free of the strategies of all the others.

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 discussd 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 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 the 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., not collectively intended). 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. In the terms introduced ealier, 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, & 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. 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 administators have definitive control—portfolio investment, property management, some of the support services—patterns or 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).

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.

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 could 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 remain to see it fully implemented.

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. The latter have considerable influence in public universities, while the former, especially in earlier times, had much influence in private ones. But the decentralization of power over many key strategy areas has often reduced them to controlling peripheral strategies (what kind of football team the old *alma mater* will have) or limited them to what Cyert and March (1963) call side payments (e.g. a seat on a weak board, a name on a new building).

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. By the same token, of course, such leadership can emerge in a department, so that the ideology remains at that level. Note that while the origin of the ideology may be an individual, its institutionalization can only occur in the collective process, as a variety of individuals interact to reinforce the new beliefs. Once these beliefs emerge as traditions, the ideology is set; thereafter, it is reinforced through various forms of selective recruitment and socialization. (See chapter by Van Maanen in this volume.)

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. 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.

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. More-

over, power tends to become institutionalized over time: it is a self-perpetuating phenomenon—those who have it use it to get more (Lukes, 1974; Gaventa, 1980; 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.

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.

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 perspectives 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 that 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 Volkswagenwerk 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 knowledge 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 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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