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How Colleges Work

*The Cybernetics
of Academic Organization
and Leadership*

Part One

Understanding Colleges and Universities as Organizations

Learning how colleges and universities work requires seeing them as organizations, as systems, and as inventions. When we study them as organizations, we see groups of people filling roles and working together toward the achievement of common objectives within a formal social structure. When we view them as systems, particular roles and structures seem less important, and our concern is focused on the dynamics through which the whole and its parts interact. While all systems share certain characteristics, there are differences between them as well. Biological or physical systems such as amoebas or galaxies have independent physical realities, but social systems such as institutions of higher education in large measure are symbolic inventions that exist because we believe in them. The three perspectives—organizational, systemic, and symbolic—are different but complementary. They are the topics of this first part.

Colleges and universities differ in many ways from other organizations (Baldridge, Curtis, Ecker, and Riley, 1978; Carnegie Commission on Higher Education, 1973; Corson, 1960, 1979; Perkins, 1973b; Whetton, 1984), and this book begins with a consideration of some of their unique characteristics. In

ortions of Chapter One, I make use of the traditional
of comparing colleges with business enterprises, because
of our ideas about organization and management come
tudies of business firms. Identifying some of the dif-
s between the two types of organization helps illuminate
comprehensive understanding of college and university
ning remains elusive and why their management and gov-
are so problematic.

he consideration of colleges and universities as systems
ter Two emphasizes how their parts interact with each
nd with the larger systems of which they themselves are
he important elements of an institution, and the differ-
terns by which they can be combined, make institutions
fferent even though the processes by which they func-
systems are comparable. Certain properties of systems
ome problems of administration inherent and intrac-
nd administrators must learn to cope with what they can-
trol.

hapter Three looks at the usefulness of some common
bout organizational rationality, goals, and effectiveness
ws why these ideas often are not helpful to administra-
e important thing about colleges and universities is not
ices that administrators are presumed to make but the
ent people reach about the nature of reality. People cre-
anizations as they come over time to agree that certain
of the environment are more important and that some
f interaction are more sensible than others. These agree-
coalesce in institutional cultures that exert profound in-
on what people see, the interpretations they make, and
ey behave.

Chapter 1

Problems of Governance, Management, and Leadership in Academic Institutions

American colleges and universities are the most paradoxical of organizations. On the one hand, it has been said that "they constitute one of the largest industries in the nation but are among the least businesslike and well managed of all organizations" (Keller, 1983, p. 5). On the other hand, many believe that our institutions of higher education exhibit levels of diversity, access, and quality that are without parallel. At a time when American business and technology suffer an unfavorable trade deficit and are under siege from foreign competition, our system of higher education maintains a most favorable "balance of trade" by enrolling large numbers of students from other countries. Our system remains the envy of the world.

The apparent paradox that American colleges and universities are poorly run but highly effective is easily resolved if either or both of these judgments are wrong. But what if they are both right? Such a state of affairs would lead to several interesting speculations. For example, it might be that the success of the system has come about *in spite of* bad management, and that if management could somehow be improved, the system could be made even more effective than it is today. Or it might

contrary to our traditional expectations, at least in col-
universities, management and performance are not
related. If this is true, then improvements in manage-
ight not yield comparable benefits in organizational ac-
ment. Or, strangest of all, it might be that to at least
tent our colleges and universities are successful *because*
poorly managed, at least as *management* is often de-
other complex organizations. If this is true, then at-
to "improve" traditional management processes might
diminish rather than enhance organizational effective-
institutions of higher education. This book is in large
exploration of these possibilities.

he concept that best reflects the ways in which institu-
higher education differ from other organizations is *gov-*
and I shall use it extensively in this chapter. There is
e and generally accepted definition of governance; it has
riously discussed in terms of structures, legal relation-
uthority patterns, rights and responsibilities, and deci-
king processes. I shall use the word *governance* in a very
ay to refer to the structures and processes through which
onal participants interact with and influence each other
nmunicate with the larger environment. A governance
is an institution's answer—at least temporarily—to the
g question that became a plaintive cry during the cam-
is of the late 1960s and early 1970s: "Who's in charge

Problems of Governance

he authority to establish a college or university belongs
ate, which exercises it by forming through statute, char-
constitutional provision an institution with a corporate
e and a lay governing board. An uncomplicated view of
nce need go no further than this fact, because legally the
g board *is* the institution (Glenny and Dalglish, 1973).
reality of governance today is much different from
is strict legal interpretation would suggest. In fact, "de-
aking is spread among trustees, presidents, and faculty,

and although the legal status of the trustees has not changed,
there is ambivalence about how much power they should have"
(Carnegie Foundation for the Advancement of Teaching, 1982,
p. 72).

Trustees and Faculty. In earlier times, institutions were
small, trustees were clergymen, and administration and faculty
might consist of a president and a handful of tutors. Boards
could—and often did—exercise the full authority that they legal-
ly possessed. Governance was not an issue; it was the will of the
board. But as institutions became more complex, boards dele-
gated de facto authority to presidents. And as the faculty be-
came more professionalized during the early part of the twen-
tieth century, much authority on many campuses, particularly
in curriculum and academic personnel matters, was further dele-
gated to faculties. Some reached the point where "the faculty
. . . tend to think of themselves as being the university. This
leaves the board of trustees with little authority over the [ma-
jor] function of the university, instruction" (Besse, 1973, p.
109).

As a result, different campus constituencies now assert
their claim to primacy in areas over which boards retain legal
obligations and responsibilities. Radical remedies to clarify gov-
ernance rights have occasionally been suggested. One such sug-
gestion argued that the board should take back from the faculty
authority for the curriculum, since the board has full legal re-
sponsibility for all aspects of the institution (Ruml and Morri-
son, 1959). More recently it has been suggested that trustees
consider simplifying governance by stripping all campus groups
of governance prerogatives except insofar as they might be
granted as a privilege by the president acting as the board's ex-
clusive agent (Fisher, 1984). Proposals such as these cannot be
taken seriously, but more moderate and responsible calls for
greater trustee involvement in governance are increasing (Carne-
gie Foundation for the Advancement of Teaching, 1982).

Tensions between trustees and faculty are not new. Prob-
ably the most outspoken observer and critic of this conflict
was Thorsten Veblen ([1918] 1957), whose 1918 book *The*

ning in America railed against the effects of boards
increasingly made up of businessmen whose interest
on efficiency and who did not understand the
re of the academic enterprise. In their view, he said,
ity is conceived as a business house dealing in mer-
nowledge, placed under the governing hand of a cap-
tion, whose office it is to turn the means at hand to
the largest feasible output" (Veblen, [1918] 1957,
contrast, said Veblen, scholars pursue their work
each in his or her own way. It is not amenable to
and systematic procedures of the administrator and
educed to the bottom line of a balance sheet. The
ve role is not to govern scholars but rather to serve
stants and cater to their idiosyncratic needs. To the
this is not done, the university will lose effective-
se "a free hand is the first and abiding requisite of
nd scientific work" (p. 63). Veblen's acerbic com-
forth the governance issue clearly if simplistically:
iversity be controlled by trustees and administrators
y?

nswer to this question is important, because faculty
tees have different backgrounds and values. Approx-
percent of all board members are businesspeople
overning Boards," 1986), who are more likely than
ee their institutions as comparable to business firms
cture and authority patterns and to support ideas of
management. Trustees are also likely to have a lesser
ng and support of principles of academic freedom
ulty and are more likely than faculty to believe that
demic decisions do not require faculty involvement.
"trustees differ markedly from those occupying the
ositions 'beneath' them. In terms of political party
nd ideology, and attitudes about higher education,
are generally more conservative than the faculty"
969, p. 51).

inistrators and Faculty. The days of amateur admin-
hen faculty temporarily assumed administrative posi-

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tions and then returned to the classroom are long since over at
most institutions. As institutions become larger and more com-
plex, knowledge of legal precedents, federal regulations, man-
agement information systems, student financial aid procedures,
grant and contract administration, and many other areas of spe-
cialized expertise is needed to accomplish many administrative
tasks. Faculty and administrators fill different roles, encounter
and are influenced by different aspects of the environment, and
have different backgrounds. The increasing numbers and impor-
tance of managers at all levels have led to the "administered uni-
versity" (Lunsford, 1970, p. 91), in which administrators are
separated from the rest of the university. As a consequence, uni-
versity executives and faculty form separated and isolated con-
claves in which they are likely to communicate only with people
similar to themselves. The use of more sophisticated manage-
ment techniques can make things even worse. "In a context in
which faculty members are less privileged and in which they
often feel oppressed beneath the weight of administrative au-
thority, the innovations wrought by the new devices of manage-
ment may widen the gulf between faculty and administration
and thus intensify the antagonism, latent and overt, which has
traditionally existed between the administrative and the aca-
demic cultures" (Rourke and Brooks, 1964, p. 180).

Administration and management can become so complex
that even those faculty who are interested in governance may
not have the time or the expertise to fully understand the pro-
cesses of decision making or resource acquisition and allocation
that are at the heart of many governance issues. Because of these
changes, administrators become identified in the faculty mind
with red tape, constraints, and outside pressures that seek to
alter the institution. They come to be seen by the faculty as ever
more remote from the central academic concerns that define
the institution. Faculty in turn come to be seen by the adminis-
tration as self-interested, unconcerned with controlling costs,
or unwilling to respond to legitimate requests for accountability.

Normative Statements on Governance. It might be
thought that uncertainty and conflict concerning governance

procedures could be moderated by authoritative state-
that enunciate the elements of sound practice. Several
normative statements of this kind exist, perhaps the
influential of which is the "Joint Statement on Govern-
Colleges and Universities" (American Association of
ty Professors, 1984) published in 1967. The document
ed the concept of governance as a shared responsibility
effort involving all important constituencies of the
community, with the weight given to the views of
up dependent on the specific issues under discussion.
ular, while recognizing the legal authority of the board
president, the document identified the faculty as having
responsibility for the fundamental areas of curriculum,
on, faculty status, and the academic aspects of student
term *primary responsibility* was specifically defined to
at "the governing board and president . . . should con-
the faculty judgment except in rare instances and for
ng reasons which should be stated in detail" (p. 109).
ears to give the de facto authority of the faculty more
han the de jure authority of the board in those areas
fact define the institution—what shall be taught, who
ch, and who shall study. In the eyes of some, this mud-
problem further rather than clarifying solutions.

major problem with the "Joint Statement"—as well as
content of other normative statements—is that while it
positions of high principle that can be endorsed by
mpus constituencies, it is less successful in identifying
cific structures and processes that would implement
inciples. The behavioral implications of the statement
ear and can be interpreted in quite different ways. The
t has also been criticized for failing to describe how
ce *really* functions in many institutions, for assuming
vernance is characterized by shared aims and values
giving proper weight to the conflict and competition
st between constituencies, and for ignoring the ways in
e external environment affects governance (Mortimer
Connell, 1978). The "Joint Statement" is thus seen by
an academic Camelot—devoutly to be wished for but
evable by mere mortals.

The "Joint Statement" has another weakness, which has
been less widely noticed: it does not fully appreciate the differ-
ences between various kinds of institutions. The diversity of
American higher education is reflected in significant differences
in such critical matters as purpose, size, sponsorship, tradition,
and values. Policies appropriate and fruitful for one type of in-
stitution may be harmful for another. Recommendations of pol-
icies that treat "*the* faculty" or "*the* administration" as alike in
all institutions (and that speak as if these groups were mono-
lithic within institutions) ignore the reality that the background
and expectations of faculty and administrators at community
colleges and at research universities, for example, might well
produce very different approaches to governance.

Problems of Organization

Dualism of Controls. If a college is compared to a busi-
ness firm, it is possible to consider the confused relationships
between boards, administration, and faculty that we have just
discussed as reflecting disorganization, willfulness, or the pur-
suit of self-interest in preference to college interests. Corson
(1960) was among the first observers to ascribe a different cause
when he identified the administration of colleges and universi-
ties as presenting "a unique dualism in organizational structure"
(p. 43). Corson saw the university as including two structures
existing in parallel: the conventional administrative hierarchy
and the structure through which faculty made decisions regard-
ing those aspects of the institution over which they had jurisdic-
tion. This dual system of control was further complicated by the
fact that neither system had consistent patterns of structure or
delegation. The faculty governance structure on every campus
was different, and each administration seemed to "have been
established to meet specific situations in particular institutions
or to reflect the strengths and weaknesses of individuals in vari-
ous echelons" (p. 45).

The two control systems not only were structurally sepa-
rate but were based on different systems of authority as well
(Etzioni, 1964). In most business organizations, major goal ac-
tivities are directed and coordinated by a hierarchy of adminis-

o decide questions such as what products should be
what number, and with what characteristics. Those
rank rely on administrative authority, derived from
ion in the organizational structure, to direct the ac-
others. These organizations also have need for experts
t involved in coordinating the institution's goal activ-
e experts rely on professional authority to provide
knowledge and judgment in one or more professional
r judgments are individual acts that are not governed
ctives of others.

inistrative authority is predicated on the control and
on of activities by superiors; professional authority is
on autonomy and individual knowledge. These two
authority are not only different but in mutual dis-
In business organizations, the administrative line
ect the primary goal activities of the institution, and
rofessionals provide secondary support activities and
. Conflict caused by the incompatibility of adminis-
professional authority is resolved by recognizing the
of administrative authority. But in professional orga-
such as colleges and universities, the resolution is far
lematic. These organizations have staffs composed
ntly of professionals who produce, apply, preserve,
nicate knowledge (Etzioni, 1964) and who are also re-
for setting organizational goals and maintaining stan-
erformance (Scott, 1981). Etzioni suggests that "al-
ministrative authority is suitable for the major goals
n private business, in professional organizations ad-
s are in charge of secondary activities; they adminis-
to the major activity carried out by professionals. In
ds, to the extent that there is a staff-line relationship
essionals should hold the major authority and admin-
e secondary staff authority" (p. 81). This reversal of
ns seen in other settings makes the organization of
d universities difficult to understand.

ion and Management. Clarity and agreement on orga-
mission are usually considered a fundamental princi-

ple for establishing systems of accountability. It is commonly
stated that "in a business corporation there is always one quan-
tifiable measure of performance . . . the rate of earnings on the
capital invested. Because dollar profits are both the objective of
the activity and the measure of performance, the operation of
the company is keyed to accountability for the profit achieved"
(Besse, 1973, p. 110). This relationship between performance
and profit can then be translated into systems for identifying re-
sponsibility, measuring costs, and preparing periodic reports and
analyses.

Although it is too simple to say that the mission of a
business enterprise is to make money, that assertion contains an
underlying truth that to a great extent provides a clarity of pur-
pose and an integration of management that are absent in higher
education. As colleges and universities become more diverse,
fragmented, specialized, and connected with other social sys-
tems, institutional missions do not become clearer; rather, they
multiply and become sources of stress and conflict rather than
integration. The problem is not that institutions cannot identify
their goals but rather that they simultaneously embrace a large
number of conflicting goals (Gross and Grambsch, 1974).

There is no metric in higher education comparable to
money in business, and no goal comparable to "profits." This is
so in part because of disagreement on goals and in part because
neither goal achievement nor the activities related to their per-
formance can be satisfactorily quantified into an educational
"balance sheet." Does a core curriculum produce more liberally
educated students than a program built on the great books?
Should a college measure its performance by the percentage of
students who graduate, the percentage who get jobs, the per-
centage who are satisfied, or the percentage who participate in
civic activities? The accountability techniques of the business
corporation are of little benefit to the educational purposes of
higher education.

Lack of clarity and agreement on institutional goals and
mission has equally important effects on organization and man-
agement. The list of legitimate institutional missions is a lengthy
one, but the problem can be seen in a consideration of only the

nly articulated missions of teaching, research, and
of these three missions is likely to rely on differ-
s for its effective implementation. For example,
ademic department may serve as the focus for
ded research is based primarily on the activities of
culty members and requires different, and incom-
agement systems, budgeting processes, and organi-
s. At the same time, the central coordination that
ice activities not only often operates outside exist-
nits but also conflicts with traditional notions of
nomy and academic freedom (Perkins, 1973a).
search, and service are interrelated and mutually
roduction processes in the higher education system
lowever, on many campuses these activities are per-
different people operating within overlapping yet
tructures. Most faculty have their primary affilia-
ther an academic department that supports their
institute within which they engage in research, or
division or other unit that provides community
faculty are affiliated with all three. No single orga-
esign can optimize all legitimate organizational in-
acture that provides the most effective support for
example, will be quite different from a structure
closely integrate undergraduate teaching activities.
igh some have suggested that higher education in-
uld be managed more effectively if their missions
d, this has proved to be impossible to do in larger
omplex organizations. A more sensible suggestion
redefine management so that it can function use-
a context of conflicting objectives. Given the differ-
clarity of goals, we should not be too surprised to
ffective management in colleges and universities
from that seen in business firms.

, Compliance, and Control. Power is the ability to
ended change in others, to influence them so that
more likely to act in accordance with one's own
Power is essential to coordinate and control the

activities of people and groups in universities, as it is in other
organizations. There are many ways of thinking about power.
One influential typology has identified five kinds of power in
social groups: coercive power, reward power, legitimate power,
referent power, and expert power (French and Raven, 1959).
Coercive power is the ability to punish if a person does not ac-
cept one's attempt at influence. Reward power is the ability of
one person to offer or promise rewards to another or to remove
or decrease negative influences. Legitimate power exists when
both parties agree to a common code or standard that gives one
party the right to influence the other in a specific range of ac-
tivities or behaviors and obliges the other to comply. A major
source of legitimate power in our society is the acceptance of a
hierarchical authority structure in formal groups. Referent pow-
er results from the willingness to be influenced by another be-
cause of one's identification with the other. Expert power is
exercised when one person accepts influence from another be-
cause of a belief that the other person has some special knowl-
edge or competence in a specific area.

The exercise of power may cause alienation, and responses
by faculty and others to various forms of power in institutions
of higher education may pose problems for their organization
and administration. Coercive power always alienates those sub-
ject to it. The use of reward power or legitimate power may or
may not produce alienation, depending on the circumstances
and the expectations of those subject to it. Neither referent
power nor expert power results in alienation.

Different forms of power are typically used in different
kinds of organizations, and they have different effects on the
responses of organizational participants. One approach has identi-
fied coercive, utilitarian, and normative organizations as repre-
senting three major patterns (Etzioni, 1961). Coercive organiza-
tions, such as prisons, rely predominantly on the punishments
and threats of coercive power, and they produce alienated in-
volvement of participants. Utilitarian organizations, such as busi-
ness firms, emphasize reward power and legitimate power to
control participants. People calculate the costs and benefits of
involvement in order to decide whether or not to participate.

organizations, such as colleges and universities, rely
t and expert power that is less likely to cause alien-
that produces committed participants who are influ-
ough the manipulation of symbols. This does not
faculty are indifferent to money, or that they will
he disaffected if they do not consider their salaries to
ble. But it is true that faculty members on many cam-
ikely to be influenced more by internalized principles
ic freedom and ethical behavior, and by communica-
colleagues who are seen as sharing their values, than
increases or threats of administrative sanctions.

means by which faculty behavior can be influenced
ore very different from what would be effective in tra-
usiness firms emphasizing utilitarian power. Trying to
culty by offering material benefits, such as money, or
orders might affect their behavior but at the same
ld increase their alienation and decrease the effective-
rmative power. The autonomous focus of professional
and the unwillingness of professionals to accept ad-
ve authority require that higher education take a dif-
roach to the problems of management and governance.

Institutional and Organizational Constraints

ny factors have increasingly limited the discretion and
of academic leaders (Commission on Strengthening
ial Leadership, 1984). Some of these factors develop as
ns interact with other institutions in their environ-
hile some arise within the institution itself. Environ-
onstraints include more federal and state controls,
volvement by the courts in academic decision making,
ers of governance, particularly in institutions that are
tatewide systems, fewer opportunities for growth and
ntly for changes accompanying growth, questions of
rtance of the missions of higher education, less accep-
authority in general, and fewer potential applicants and
greater responsiveness to the student market. Within
ns themselves, constraints to leadership arise from

greater involvement by faculties in academic and personnel deci-
sions, faculty collective bargaining, greater goal ambiguity,
greater fractionation of the campus into interest groups, leading
to a loss of consensus and community, greater involvement by
trustees in campus operations, and increased bureaucracy and
specialization among campus administrators. The dual system of
authority, the expectation of participation as an element of
shared authority, the linkages of faculty with groups external to
the campus—these and related factors already noted severely
limit the influence of administrators.

Institutions and Environments. Institutions must be re-
sponsive to their environments to survive, and the responses
made by colleges and universities have had profound effects on
their governance structures and processes. The number and per-
vasiveness of these environmental forces have increased almost
exponentially at many institutions over the past decades. Two
examples showing the effects of external sources of support and
power serve to illustrate the problem in different ways.

The confusion in governance that results when both fac-
ulty and administration lose the ability to understand and con-
trol the processes of their institutions was noted over a quarter
of a century ago (Mooney, 1963). The loss of faculty control is
related to increased institutional size and complexity and the
division of faculty into different departments, committees,
and other units. This fractionation prevents the development of
a holistic faculty perspective. The loss of administrative control
is related to the presence of external funding and control agen-
cies that bypass and weaken institutional administration. As a
consequence, neither faculty nor administration feels able to
take command, since neither group fully understands the enter-
prise or has control of enough of its resources. As individuals
and groups lose their ability to affect their institution through
the implementation of positive and constructive programs, they
increasingly tend to assert their influence and status by acting
as veto blocs, thus increasing institutional conservatism. The re-
sult, says Clark Kerr (1982, p. 30), is more commitment "to the
status quo—the status quo is the only solution that cannot be

same forces that limit the power of faculty groups
and presidents as well, so that the power of admin-
any cases is determined by their right to block pro-
nsider unwise or improper (Bok, 1983, p. 85).
ajor external force limiting institutional autonomy
e of increased authority by the states. The growth
sector of higher education during the past quarter
ell as support in some states of nonpublic institu-
to increased state funding of—and therefore con-
programs and management of both public and
colleges and universities. Coordinating or consoli-
ing boards in almost all states exercise increasing
r matters reserved in the past to the campus. Oth-
tive or legislative agencies become involved in pro-
administrative operations, budgeting, and planning.
often offered is the need for public accountabil-
consequence is often chaos and confusion (Carne-
on for the Advancement of Teaching, 1982). Indi-
tions become part of larger regional or statewide
hich single boards have authority for several cam-
t enough time or energy to become familiar with
As the locus of influence moves from the campus
public-sector presidents may find themselves be-
like middle managers than campus leaders. Faculty
to increased centralization of control by centraliz-
participation through processes of collective bar-
ften ritualize disruptive conflict. The loss of ability
influence leads to mutual scapegoating by faculty
ration, end runs to state offices that further re-
trative authority, and a diminished sense of both
nsibility and accountability. The sense of power-
s not just from the recognition of one's own lim-
exert influence upward but also from the realiza-
se higher in the organization cannot exert much
ence either.

ralization. The centralization of authority at lev-
campus has influenced the distribution of influ-

ence at many institutions in two quite different ways. Institu-
tions have become more administratively centralized because of
requirements to rationalize budget formats, implement proce-
dures that will pass judicial tests of equitable treatment, and
speak with a single voice to powerful external agencies. At the
same time, increased faculty specialization and decreased ad-
ministrative authority have fostered decentralization of educa-
tional decision making at many institutions, which leads to
further faculty specialization and continued reduction of ad-
ministrative authority. As faculty become more specialized,
they assert their expertise as a requirement for designing curric-
ulum and assessing the qualifications of colleagues. Particularly
in larger and more complex institutions, schools or depart-
ments become the locus of decision making, sometimes rein-
forced by an "every tub on its own bottom" management phi-
losophy that makes these subunits responsible for their own
enrollment and financial affairs as well. In such cases, the larger
institution may become an academic holding company, presid-
ing over a federation of quasi-autonomous subunits. Unable to
influence the larger institution, faculty retreat into the small
subunit for which they feel affinity and from which they can
defend their influence and status.

Inflexibility of Resources. The ability of groups to sig-
nificantly influence their campus through participation in gov-
ernance is severely constrained by both the paucity of resources
available and the short-term difficulties in internally reallocating
those resources that do exist. Some important intangible cam-
pus resources, such as institutional prestige or attractiveness to
students or to potential donors, are tied into networks of exter-
nal relationships that are virtually impossible to change in the
short run and difficult to alter even over long periods of time.
Internally, the personnel complement on most campuses is
largely fixed through tenure and contractual provisions, pro-
gram change is constrained by faculty interests and structures as
well as facilities limitations, and yearly planning begins with the
largest share of the budget precommitted. In the public sector,
institutions are subject to state personnel, purchasing, and con-

ulations, as well as budget management restrictions
rtain expenditures impossible even when resources
. But resources are not always available, and when
xpenditures exceed this year's projected income,
es are rare. Even on campuses that stress rational
budgeting, opportunities for short-term effects are
example, one relatively wealthy institution found
nsive planning program accounted for less than 6
e variance in the budget over ten years. An observer
that "it may be hard to believe that any effort
imal level is justifiable" but added that "since so
budget is virtually fixed, especially in the short
ll portion that is free to vary assumes tremendous
(Chaffee, 1983, p. 402).

sion of Organizational Levels. Organizations can be
as composed of three levels of responsibility and
nical, managerial, and institutional (Thompson,
leges or universities, the technical level includes the
ching, and service responsibilities carried out pri-
e faculty. The responsibility of the organization's
level, which in higher education is represented by
istees and presidents, is to ensure that the organiza-
to respond appropriately to the uncertainty of ex-
forces. The managerial level is represented by the
n, which is charged with mediating between these
d buffering the faculty and researchers who make
ical core against disruption caused by problems in
n of funding, fluctuations in student enrollments,
ntal interference.

izations are presumed to be most effective when
nal level specializes in coping with uncertainty and
l level specializes in functioning effectively in con-
ertainty. This specialization is not uncommon in
anizations in which senior officers are responsible
ng the environment (Katz and Kahn, 1978, p. 4).
education, distinctions among the three levels can
f not impossible to maintain, particularly in certain

types of colleges and universities. For example, there are institu-
tions in which faculty (technical level) are also members of the
board of trustees (institutional level). At many institutions,
faculty are expected by tradition as well as law (*NLRB v. Yeshiva
University*, 444 U.S. 672 [1980]) to exercise responsibilities
for personnel and for program that in other types of organiza-
tions would be considered managerial. Faculty in some types of
institutions, through their professional associations, funded re-
search, and consulting activities, often have direct access to ma-
jor actors and resources in the environment and so bypass the
managerial level. And major participants may sequentially (or
simultaneously) be both administrators and faculty and there-
fore participants in both the managerial and technical levels,
while the products of the technical level as alumni may become
trustees at the institutional level. There are probably few organi-
zations in our society in which someone who is a member of the
union bargaining team one day can become the organizational
president the next, but it has happened in higher education!

Distinctions among the institutional, managerial, and
technical levels are clearer in some institutions than in others
(church-related institutions or community colleges, for exam-
ple). This should make the technical core more rational and
management able to be more bureaucratized without creating
problems. Other organizations, such as research universities,
have technical cores that resist rationality and separation from
the environment; faculty engaged in state-of-the-art research
often cannot determine their research plans in advance, and they
must keep in constant communication with colleagues and fund-
ing agencies. In such situations, arbitrary bureaucratic boundaries
would be disruptive.

Cosmopolitans and Locals: Prestige and Rank. The grow-
ing professionalism and specialization of faculty have tended to
create faculty orientations to their institutions and to their dis-
ciplines that can be considered across a continuum. The two
polar types have been referred to as "cosmopolitans" and "lo-
cals" (Gouldner, 1957). Cosmopolitans are faculty whose peers
are colleagues across the country—or the world—who share their

ized scholarly interests. They tend to do research and
n, to find their rewards and satisfactions in their disciplin-
tivities, and to use their institutions as bases for their ex-
activities. Cosmopolitans are less likely to be concerned
arochial campus issues and would tend to think of them-
primarily as independent professionals and scholars and
arily (if at all) as faculty members at a particular univer-
ocals, on the other hand, are faculty whose major com-
nts are to their campuses. They tend to be integrated into
e of the campus community, to focus their attention on
g, and to be concerned with and participate in institu-
activities. They might think of themselves primarily as
members at a particular university and secondarily (if at
independent professionals and scholars.

The proportions on a faculty of cosmopolitans and locals
ve a major effect on campus governance and patterns of
ce. In traditional business organizations, prestige and
e synonymous. The president at the top of the pyramid
th the greatest degree of prestige and the highest status
k) in the organization. A vice-president has less prestige
nk than the president but more than a subordinate offi-
e organization confers both rank and prestige, and they
tually reinforcing.

n higher education, however, prestige and rank may not
ntical. While the institution may confer rank, prestige
e conferred by professional groups outside the university.
or department chairperson may have less prestige (and
fluence) than an assistant professor who has just won a
l award; a dean with a strong record of scholarship may
e influential with faculty than a vice-president for aca-
affairs. Particularly in institutions with large proportions
nopolitans, the conflicts between rank and prestige may
administrative authority and increase the difficulties in
ating activities.

Other Organizational Differences. A number of organiza-
rinciples that differentiate colleges and universities from
rganizations have already been suggested; there are other

differences as well. If a "typical" business organization and
"typical" university were compared, the university would ex-
hibit less specialization of work activities (assistant professors
and full professors do essentially the same things), a greater spe-
cialization by expertise ("unnecessary" history professors can-
not be assigned to teach accounting when enrollments shift), a
flatter hierarchy (fewer organizational levels between the fac-
ulty "workers" and the chief executive), lower interdependence
of parts (what happens in one academic department is likely to
have little effect on another), less control over "raw materials"
(particularly in public institutions where student admission is
nonselective), low accountability (because the administrative
hierarchy and control system is less involved in directing goals
activities), and less visible role performance (faculty usually
carry out their professional teaching responsibilities unseen by
either administrators or other professionals).

The differences between academic institutions and busi-
ness firms are significant enough that systems of coordination
and control effective in one of these types of organization
might not have the same consequences in the other. In particu-
lar, it might be expected that colleges and businesses might re-
quire different approaches to leadership.

The Problem of Leadership

Our common notions of leadership arise from the percep-
tion that the success of business organizations depends on the
directives of hard-driving, knowledgeable, and decisive execu-
tives. There are those who also see colleges and universities as
the long shadows of great leaders or who assert that "our fu-
ture rests on the bold, decisive leadership of college and univer-
sity presidents nationwide" (Fisher, 1984, p. 11). On the other
hand, it has been said that "the view of the university as the
shadow of a strong president is unrealistic now, however, if in-
deed it was ever accurate" (Walker, 1979, p. 118) and even that
"the presidency is an illusion" (Cohen and March, 1974, p. 2).

How important are administrative leaders to college and
university performance? Do presidents make a difference? Be-

what we think we see in business organizations, and
erts say about leaders in higher education, questions
ese may appear foolish. Lists identify the 100 most ef-
esidents ("The 100 Most Effective . . . ," 1986), and
n panels argue that "strengthening presidential leader-
e of the most urgent concerns on the agenda of higher
" (Commission on Strengthening Presidential Leader-
4, p. 102). Leadership is treated as something identifi-
ble, measurable, and efficacious. From the way we talk,
that we know what leadership is and how it should be
Fine tuning may be required, of course, but the prob-
igher education would presumably diminish if only
uld be willing to exercise leadership—or if we would
ourage to replace them with others who would.

ling for leadership is easy. But despite thousands of es-
arch studies, and other scholarly and practical works,
emains that little is actually known about the phenom-
efer to as "leadership." There is still no agreement on
rship can be defined, measured, assessed, or linked to
, and "no clear and unequivocal understanding exists
t distinguishes leaders from nonleaders, and perhaps
ortant, what distinguishes effective leaders from in-
eaders" (Bennis and Nanus, 1985, p. 4).

dership Theories. Most studies of leadership have taken
usiness organizations, the military, and governmental
with little attention given to higher education. The
eadership is even more difficult in colleges and universi-
in other settings because of the dual control systems,
etween professional and administrative authority, un-
s, and the other unique properties of professional,
organizations. In particular, the relationship between
ntified as leaders and those whom they presume to
oblematic. Some theoretical approaches assert that
can be understood only in the context of "follower-
t in higher education, there is a strong resistance to
as it is generally understood in more traditional and
al organizations; in particular, in most institutions it

may be more appropriate to think of faculty as constituents than as followers.

Five basic approaches to studying organizational leadership are found in the literature (for summaries, see, for example, Yukl, 1981; Bass, 1981; Hollander, 1985). They include *trait theories,* which identify specific characteristics that are believed to contribute to a person's ability to assume and successfully function in a leadership position; *power and influence theories,* which attempt to understand leadership in terms of the source and amount of power available to leaders and the manner in which leaders exercise influence over followers through either unilateral or reciprocal interactions with them; *behavioral theories,* which study leadership by examining activity patterns, managerial roles, and behavioral categories of leaders—that is, considering what it is that leaders actually do; *contingency theories,* which emphasize the importance of situational factors such as the nature of the task or the external environment in understanding effective leadership; and *symbolic and cultural theories,* which assume that leadership is a social attribution that permits people to cognitively connect outcomes to causes and thereby make sense of an equivocal, fluid, and complex world.

Social Exchange Theory. One orientation to leadership particularly suited to higher education is known as social exchange theory. The theory posits that there is a reciprocal relationship whereby leaders provide needed services to a group in exchange for the group's approval and compliance with the leader's demands. In essence, the group agrees to collectively reduce its own autonomy and to accept the authority of the leader in exchange for the rewards and benefits (social approval, financial benefits, competitive advantage) the leader can bring them. Leaders are as dependent on followers as followers are on leaders.

Leaders accumulate power through their offices and their own personalities to the extent that they produce the expected rewards and fairly distribute them and lose power to the extent that they do not. This suggests that effectiveness as a leader depends on either fulfilling the expectations of followers by being

al leader or changing those expectations by being a
onal leader (Burns, 1978; Bennis and Nanus, 1985).
tional leader meets the needs of followers and em-
ans; the transformational leader emphasizes ends
: motivations of followers to lead them to new and
s in the support of intended change. Neither form,
should be confused with what commonly passes for
'acts of oratory, manipulation, sheer self-advance-
coercion, . . . conspicuous position-taking without
follow through, posturing on various stages, . . . au-
m" (Burns, 1978, p. 427).

aveat is important. It illuminates a common cogni-
it leads us to base judgments about leaders on the
nich they have characteristics that make them *look*
The old joke states the qualifications for college
"white hair for that look of experience and hemor-
at look of concern." As is true of many jokes, there
ant core of reality in this one that suggests that the
adership may rely as much on our preconceptions
s on the observed outcomes that are clearly the con-
leadership behavior.

rship as Symbol. Symbolic, cognitive, or cultural
, for example, Deal and Kennedy, 1982; Cohen and
4; Schein, 1985; Sergiovanni and Corbally, 1984;
) view organizations as systems of belief and per-
hich reality is invented, not discovered. From this
the role of leaders in business organizations is to
e organizational culture. But the professional na-
ges and universities may make the management of
cult if not impossible, and the role of leaders may
more symbolic than real. Presidents may have rela-
nfluence over outcomes when compared with other
ffect organizational functioning.

ossibility that leadership in its traditional sense may
minor role in the life of most colleges and universi-
the time is difficult to accept. We have developed
nticized, heroic views of leadership—what leaders

do, what they are able to accomplish, and the general effects they have on our lives. One of the principal elements in this romanticized conception is the view that leadership is a central organizational process and the premier force in the scheme of organizational events and activities. It amounts to what might be considered a faith in the potential if not in the actual efficacy of people identified as leaders (Meindl, Ehrlich, and Dukerich, 1985). Cognitive biases allow us to see the "evidence" of the effects of leadership even when it does not exist. For example, work groups that are arbitrarily told that they have been successful at a task are more likely to perceive that they have had good leadership than groups that have been arbitrarily told that they have failed (Staw, 1975). Extreme (good or bad) performance of an organization is likely to lead to a preference to use leadership as an explanation even in the absence of any supporting data (Meindl, Ehrlich, and Dukerich, 1985). And it has been proposed that merely focusing someone's attention on a potential cause (and who is more likely to be visible and thought of than the president?) will affect the extent to which it is perceived as the cause (Nisbett and Ross, 1980). Findings such as these suggest that administrative leadership may be in part a product of social attributions. By creating roles that we declare will provide leadership to an organization, we construct the attribution that organizational effects are due to leadership behavior (Pfeffer, 1977). This allows us to simplify and make sense of complex organizational processes that would otherwise be impossible to comprehend (Meindl, Ehrlich, and Dukerich, 1985). In some ways, it is perhaps as sensible to say that successful organizational events "cause" effective administrators as it is to say that effective administrators "cause" successful events.

In many situations, presidential leadership may not be real but rather may be a social attribution. This can happen because of the tendency of campus constituents to assign to a president the responsibility for unusual institutional outcomes because the leader fills a role identified as that of leader, because presidents are very visible and prominent, because presidents spend a great deal of time doing leaderlike things (such as engaging in ceremonial and symbolic activities), and because we

ed to believe in the effectiveness of individual
s, then, are people believed by followers to have
'Successful leaders," says Pfeffer (1977, p. 110),
can separate themselves from organizational fail-
te themselves with organizational successes."

p and Environments. Comparing traditional no-
hip to those that come out of the symbolic or
ach puts us in a rather difficult situation. Those
e strengthening of presidential leadership recog-
quality of current presidents (Commission on
Presidential Leadership, 1984), and yet the best
be good enough. The primary factors affecting
be found not in the presidents themselves but
onstraints that exist in the environment within
rators function. Good times seem to call forth
he late nineteenth century is seen now as a time
ounded or expanded great institutions (although
been difficult in 1890 to predict exactly who
uld appear to have been in 1990). Similarly, the
w an extraordinary number of campus leaders
ul in directing new construction and burgeoning
it, as has been pointed out, administrators then
b, and "by traditional standards, administrative
s almost universal. Enrollments were increasing,
rowing, innovations in the form of new and ex-
rams were common. . . . Of course, the problem
standards of administrator effectiveness is that
those listed above are largely a product of envi-
es and beyond administrative control" (Whetten
985, p. 35).

ately, leadership appears in short supply in bad
luring eras of decline or of student unrest. In the
example, presidents faced with campus disrup-
ized for not calling in the police as frequently as
alling them, and for calling them either too soon
sidents were castigated for ineffective leadership
st hoc suggestions proposing how one president

could have succeeded were precisely the explanations given on
another campus for why a president failed.

Presidential influence is constrained by many factors, and
many aspects of institutional functioning do not appear to de-
pend on who the president happens to be (Birnbaum, forthcom-
ing c). But this does not mean that presidents are unimportant.
Complex social organizations cannot function effectively over
the long term without leaders to coordinate their activities, rep-
resent them to their various publics, and symbolize the embodi-
ment of institutional purpose. Moreover, if these leaders are to
avoid conspicuous failure, they must have a high level of techni-
cal competence, an understanding of the nature of higher educa-
tion in general and the culture of the individual institution in
particular, and skills required to effectively interact with exter-
nal constituencies. These are uncommon traits, but the pro-
cesses of presidential selection function in a manner that makes
it likely that successful candidates by and large will usually pos-
sess them (Birnbaum, forthcoming b). There may be little rela-
tionship between institutional functioning and presidential ac-
tions, but this does not necessarily mean that presidents are too
weak; it could equally well be used to argue that presidents in
general are quite good but that they are generally homogeneous
in their effectiveness. This may in part be because the training
and socialization of a new president are likely to be similar to
those of the predecessor president, as well as to those of other
persons who could plausibly have been considered for that spe-
cific vacancy. In general, most presidents do the right things,
and do them right, most of the time; they properly fulfill the
requirements of their roles even if they are unlikely to leave a
distinctive mark on their institution.

The Nature of Academic Organization—A Summary

Because most institutions of higher education lack a clear
and unambiguous mission whose achievement can be assessed
through agreed upon quantifiable measures such as "profits,"
the processes, structures, and systems for accountability com-
monly used in business firms are not always sensible for them.

ge and university managers do not exercise primary
the curriculum, faculty recruitment or promotion,
ods of teaching, major processes of production that
firms would be fundamental managerial preroga-
of governance are clouded at least in part because
center of authority analogous to the owners of the
to the cabinet member, governor or mayor" (Cor-
. 7). The authority of various constituencies to par-
or make decisions is often unclear and frequently

ugh it is tempting to consider a college or univer-
of its corporate existence, as being comparable in
to a business corporation, the differences between
striking. In addition to matters already discussed, it
ed (Kerr and Gade, 1986) that business firms, un-
ons of higher education, have no tenured faculty
ce no criticisms from employees shielded by the
academic freedom, and have no alumni. The boards
irms are likely to include large numbers of corpo-
and to be controlled by the corporate administra-
siness firm can make and remake decisions con-
out the need for full consultation. In short, as
urtis, Ecker, and Riley (1978, p. 9) have put it,
ational characteristics of academic institutions are
from other institutions that traditional manage-
s do not apply to them. Their goals are more am-
diverse. They serve clients instead of processing
eir key employees are highly professionalized.
nclear technologies based more on professional
standard operating procedures. They have 'fluid
with amateur decision makers who wander in and
cision process. As a result, traditional management
ot be applied to educational institutions without
idering whether they will work well in that unique
ing."
n ideas about the efficacy of strong and decisive
y have some validity in business firms that are
d goal directed and in which subordinates expect

to receive directives from superiors. But leaders in higher educa-
tion are subject to internal and external constraints that limit
their effectiveness and may make their roles highly symbolic
rather than instrumental.

If traditional management theories are not applicable in
higher education—at least in many institutions much of the
time—people interested in exercising constructive influence on
colleges and universities need other conceptual orientations to
guide their interpretations and behaviors. A number of such ori-
entations are presented in the models discussed in the second
section of this book. These models will be easier to understand
if first we can determine how colleges and universities operate
as systems and how people come to act sensibly within them. In
the next two chapters, we will look at these two questions using
Huxley College, a fictitious institution, as a case in point.

king in
ms and Circles:
Structure and Dynamics
cademic Organizations

ons differ in many ways, including their enrollments,
s, structures, and resource bases. In most of this book,
size these differences in describing various organiza-
stems. But in introducing some basic systems concepts
hapter, I present a fictitious generic institution named
College and its president, Quincey Wagstaff. The ideas
d about Huxley are generally applicable to all colleges
ersities, and they provide much of the conceptual base
later chapters rely.
uxley College is a complex institution, and its many
es and participants make it difficult to study. Under-
Huxley may be simplified by ignoring some of its spe-
aracteristics and instead analyzing it as an abstraction
"system." A system is an organized whole that has two
interdependent parts (or subsystems) and is separated
environment by a boundary (Kast and Rosenzweig,
 lot is known about systems of various kinds, and this
ge can help us understand how Huxley works. Systems
archical; they are made up of smaller systems and are
es parts of larger systems. For example, department

Chairperson Chippendale and department Professor Branch rep-
resent a subsystem of the urban ecology program area at Hux-
ley, which is a subsystem of the sociology department, which in
turn is a subsystem of the college, which is itself a subsystem of
an informal statewide network of institutions. Each of these
could be studied as a system in which the smaller units were the
subsystems and the larger ones the supersystem.

The Nature of Systems

To clarify the system concept, I will describe two differ-
ent systems, one relatively simple and one relatively complex,
and compare their characteristics in terms of three elements
common to all systems. In Figure 1, I have depicted the simple
Pool System, representing a common recreational pastime, and
the more complex School System, representing Huxley College.
The Pool System consists of a table surrounded by resil-
ient borders within which are colored balls arranged in a tri-
angle form. The School System can be depicted in a number of
ways, but for this example I have shown it as consisting of two
major components of Huxley College: a technical subsystem
and an administrative subsystem. The Pool System and the
School System are clearly quite different, and yet they share
some common characteristics (Katz and Kahn, 1978).

Interacting Components. Both systems are composed of
components that interact. In the Pool System, the movement of
any of the balls from its initial position at the start of play af-
fects every other ball on the table. In the School System, the
components are not simple and clearly identifiable objects but
rather are two complex subsystems. One of these, the technical
subsystem, is composed of the elements of the system that turn
inputs into outputs. For example, faculty, department chairs,
academic freedom policy statements, and research laboratories
at Huxley turn inputs such as students, money, prestige, societal
expectations, chemicals, and books into outputs such as gradu-
ates, knowledge, service, and status. The administrative subsys-
tem includes regulations, department chairs, the dean, budgets,

Figure 1. A Comparison of Two Systems.

Pool System

School System
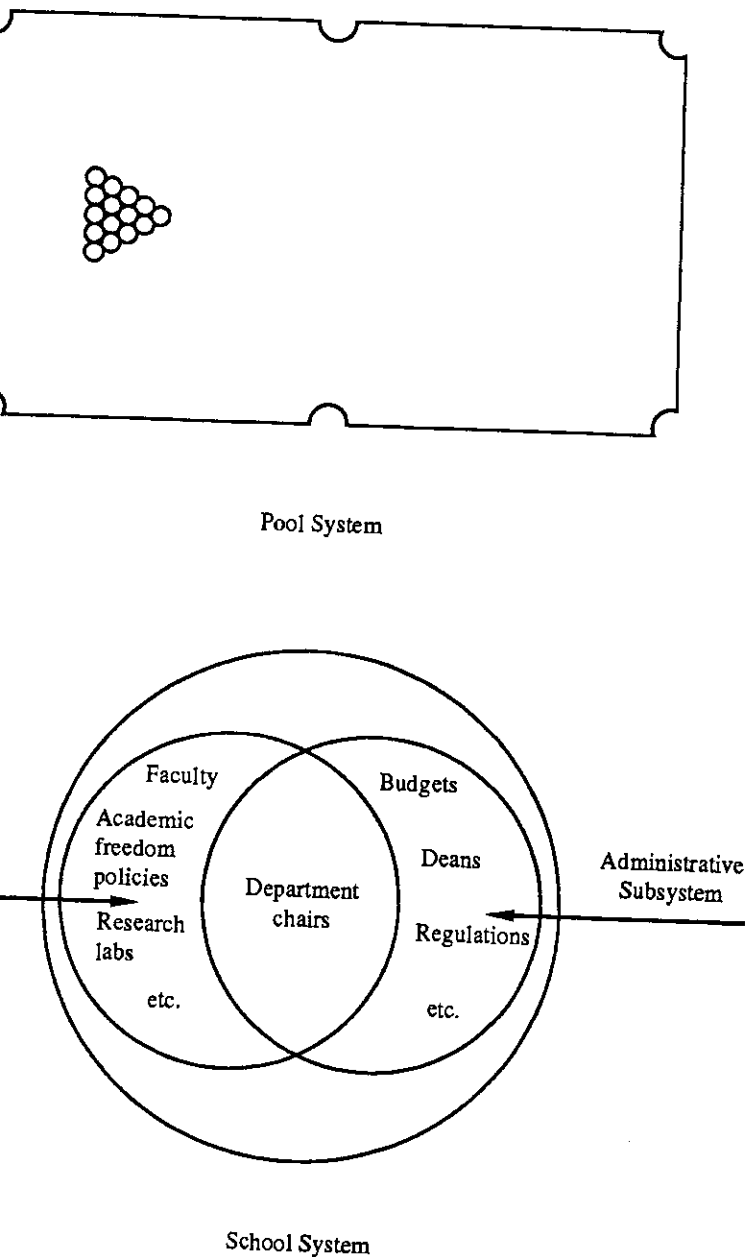
and similar elements that help to coordinate and direct the organization. Although these two subsystems are different, they have some common elements (both include the department chairs, for example), and so they are shown as overlapping. Both the diagram and our everyday organizational experience suggest that these two subsystems interact with and affect each other. A change in the instructional program (for example, the development of a new area of study) may lead to changes in administration (for example, the start of a new department). In turn, the creation of a new department may alter the instructional program.

Boundaries. Both systems have boundaries that delineate them from the larger supersystems of which they are parts. The Pool System boundaries are clearly defined by the pool table itself. The School System boundaries are not as clear-cut, but we are still able for the most part to identify what is part of Huxley College and what is not. In both cases, we can identify everything outside the system boundaries as being a part of that system's environment.

Inputs and Outputs. Systems receive inputs from the environment, transform them in some way, and then return them to the environment. Environmental input into the Pool System is relatively simple. It comes as kinetic energy transferred from the cue stick to the cue ball and then to the other balls, causing them to move. By the time all the balls are again at rest, the kinetic energy from the environment that initiated the process has been transformed by the laws of thermodynamics into heat, which has been dissipated and returned to the environment.

While the Pool System has only one major environmental input, the School System has many. For the present example, consider the students. They enter Huxley College, interact with faculty and each other, and then as graduates or dropouts return to the environment. Both common sense and a considerable body of research (Bowen, 1977; Astin, 1977) indicate that students are likely to be changed in many ways during their involvement with Huxley, so that after the system "processes"

are different from the way they were initially. Even
return to the environment as "products," they con-
fect the system as alumni and citizens.

es of Systems. Both Pool and School meet our defini-
ystem, but they appear to be quite different in many
idministrators, we often ignore our intuitive under-
f these differences and treat School System problems
were Pool System problems. We may try to prescribe
dures to be applied in defined ways to produce speci-
nes. We may treat failure to achieve the desired end
management deficiency that can be corrected by bet-
ement or more effective application. Such approaches
rk. Why is a prescription that works in one system a
nother?

answer is that in fact we are dealing with two differ-
of systems: the closed system of the Pool and the
m of the School. Closed systems have boundaries that
ly rigid and impenetrable and that limit the kinds of
that take place with the environment. Input to
ems tends to be definable, controllable, and relatively
ocessing that input can be systematic and scheduled.
s and formulas can often be used with great preci-
ut from closed systems disappears and does not serve
the system. Closed systems are linear; the system
ot change, and cause and effect can be predicted with
acy. Success comes from playing by the rules.
n open system such as Huxley College, the bound-
elatively permeable, and interactions of many kinds
to occur between the environment and many of the
ments. Inputs to open systems are much more com-
may consist of people, ideas, tangible resources, or
it with other institutions or systems. The character-
le input often cannot be accurately assessed or con-
d processing input can be problematic because it
on uncertain interactions between elements. Outputs
appear as they do in a closed system but return to the
nt, where they may again become inputs. Open sys-

tems are dynamic and nonlinear. The system parts are them-
selves systems; they constantly change as they interact with
themselves and with the environment, and the system evolves
over time.

Those who write about nonlinear systems use metaphors
to suggest their dynamic nature: it is like being in a maze in
which the walls change with every step you take; it is like con-
sulting a clock that changes time as a result of being consulted; it
is like playing a game in which every move you make changes
the rules. Cause and effect in such systems often can be neither
predicted nor adequately explained. Dynamic, nonlinear sys-
tems such as Huxley College at some times may appear to oper-
ate in an orderly manner, and at other times may fluctuate er-
ratically. The complex outcomes that arise from such systems
often lead us to infer complicated causes, but in fact the chaotic
behavior of nonlinear systems such as Huxley may result from
the continued processing and interaction of a small number of
relatively simple rules.

Is an open system better than a closed system? No, just
different. Each has its place. Consider the difficulty in playing
pool if the table were part of an open system affected by many
forces inside and outside its boundaries. Suppose, for example,
that each ball "learned" from being struck and reacted slightly
differently each time it was hit! Recognizing the differences
between open and closed systems will turn out to be important
in our later considerations of institutional governance and orga-
nization. Of course, since we are dealing in this book with so-
cial institutions, we will be concerned by definition with open
systems. But even open systems can be more or less open, and
the effectiveness of some institutions (or parts of institutions)
may be enhanced by adjusting the extent to which they are rela-
tively open or closed to influences from the environment.

Tight and Loose Coupling

In order to understand how the various subsystems and
elements within a system interact with each other, we must con-
sider how they are connected, or coupled. The coupling be-

ents in a system can range from tight to loose. We
e two simple systems to see how coupling works.
ns are black boxes with an input rotor protruding
nd and an output rotor from the other. If we turn
·otor of the first box one full turn clockwise, the
·r turns exactly the same way on a one-to-one basis.
 second box, the output rotor appears to move al-
mly. In order to understand why one box is so pre-
d the other is so perverse, we open both boxes and
ents shown in Figures 2 and 3.

Figure 2. Inside a Predictable Black Box.
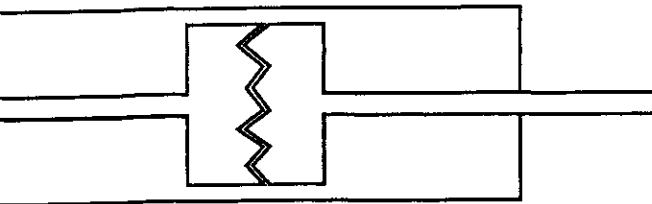
ıg inside the predictable box (Figure 2) makes the
· our observations clear. Each rotor is attached to a
 teeth match exactly. This precise correspondence be-
 two elements is an example of tight coupling. Cou-
ight is common in mechanical structures, but it rarely
ırganizations. However, tight coupling is relative, and
uxley College we can observe certain situations in
ıges in one element (actions by the college curricu-
ittee or President Wagstaff's decisions on administra-
s, for example) usually produce directly responsive
another (such as new sections in the college catalogue
aychecks).
us turn our attention now to the second black box,
ı external appearance to the first. We confidently
input rotor one full turn clockwise and are startled to
he output rotor turns only one-half turn and then
try it many times and find that sometimes it turns all
ometimes it does not turn at all, and once in a while it

turns a short way in the opposite direction! Sometimes it will
run smoothly, and at other times it will go in fits and starts.
There just does not seem to be a simple relationship between
the two rotors, and when we open this perverse black box and
see the internal structure shown in Figure 3, we begin to under-
stand why.

Figure 3. Inside a Perverse Black Box.
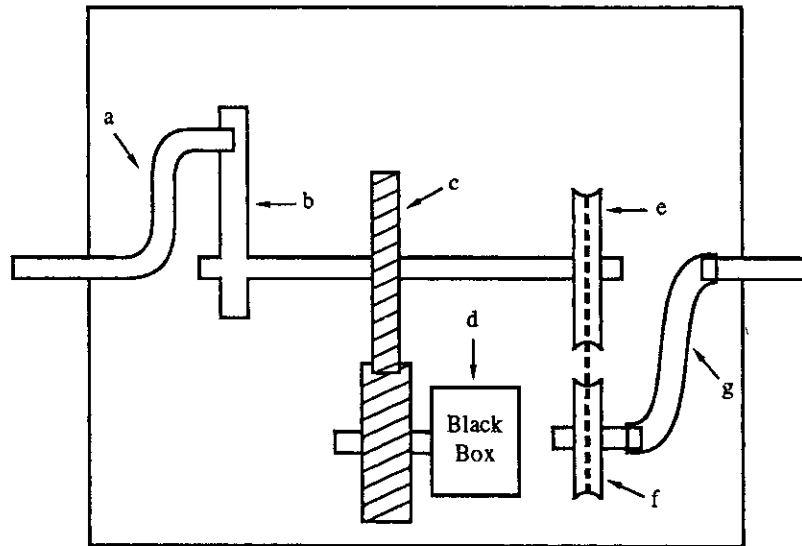
First, the input rotor is offset (a), so that sometimes it
immediately hits the bar (b) when turned, and sometimes it
does not. The bar is connected to a gear (c), but the connection
appears itself to be moderated by another black box (d) that we
cannot open, so that the motion of large wheel (e) cannot al-
ways be predicted from the motion of the gear. The large wheel
is connected to a smaller wheel (f) by a rubber band that some-
times slips, and the big wheel is connected to the output rotor
by plastic tubing (g) that is semirigid and requires a certain in-
crement of force before it moves. This is a loosely coupled sys-
tem. The elements of the system are responsive to each other,
but they also preserve their own identities and some logical

)escribing loose coupling by using this mechanical
implifies the concept. In a social system, not only
discontinuities in the way the parts are connected,
'(participants) themselves have intentions, precon-
wills that change over time. The faculty senate at
ample, is one "part" of a "perverse" black box. Its
their opinions and desires, change over time. Even
t to the senate alters the senate's configuration.
t black box, like the Pool System, can be thought
istic. We can accurately predict its future state if
resent state and the forces that will act on it (Ash-
e second black box, like the School System, is
resident Wagstaff can say what outcomes are pos-
ample, he rejects a recommendation of the faculty
ttee and how frequently they will occur on aver-
atter how much he knows about Huxley's history
ditions, he can never predict with certainty the
of any future tenure decision, nor can he project
e state in any specific situation.
ferences between the two black boxes are now
t only because we have been able to open them.
rld, the boxes do not open easily, if at all, and we
judgments about coupling on the basis of exter-
s (remembering that they look the same!) and on
learn about the relationship between inputs and
may be tricky, because sometimes the two boxes
ly the same way! There will be times when a
d system will (by chance) behave consistently,
n a tightly coupled system (because some connec-
s broken down) will not. The difficulty of distin-
en deterministic and probabilistic systems causes
ms for administrators, who often see only the in-
uts and then have to make plausible (but often
erences about the relationships between them.
use the term loose coupling to refer to connec-
organizational subsystems that may be infre-
cribed, weak in their mutual effects, unimportant,
ond (Weick, 1976). Tight and loose coupling are

relative terms. Conceptually they can be differentiated on two
criteria: the extent to which subsystems have common variables
between them and the extent to which the shared variables are
important to the subsystems. If the subsystems have a great
many components in common (like the gears on our predictable
black box), and if those elements are among the most important
in the subsystems, the subsystems are likely to be relatively
tightly coupled, and changes in one should produce clear changes
in the other.

On the other hand, the instructional and administrative
subsystems of the simple School System of Huxley College
shown in Figure 1 have only one element in common—the de-
partment chair. If the chair is tightly coupled to one subsystem,
it is almost certainly loosely coupled to the other (that is, the
chair can be completely responsive to either the dean's de-
mands or the faculty's demands but not to both). In addition,
the department chair at Huxley is not among the most impor-
tant elements in either subsystem. Because of this, changes in
one subsystem might lead to changes in the other sometimes
but not all the time, and the subsystems could be characterized
as being loosely coupled. Although this model is highly simpli-
fied, it suggests at least one reason why attempts to develop
administrative approaches to curriculum reform at Huxley are
often unsuccessful. A major frustration of administrative life in
loosely coupled systems is the difficulty of getting things to
work the way the administrator wants them to.

Functions and Dysfunctions of Loosely Coupled Systems.
Loose coupling has often been attacked as merely a slick way to
describe waste, inefficiency, or indecisive leadership and as a
convenient rationale for the crawling pace of organizational
change. It has been argued that if coupling were tighter, institu-
tions would find it easier to communicate, achieve predictabil-
ity, control their processes, and better achieve their goals (Lutz,
1982). Does loose coupling serve any constructive functions?
Should administrators at Huxley try to change loose coupling
and run a "tighter ship"?

To be sure, loosely coupled systems have significant

sts. Some subsystems at Huxley may be uncoordinated and in
nflict with others. Programs can respond unwisely to environ-
ental stimuli, as happened in the past when the athletic de-
rtment, without Wagstaff's knowledge, engaged in recruit-
ent violations under pressure from the Huxley Boosters Club.
ose coupling makes it difficult for Huxley to discard bad
eas or to disseminate good ones throughout the institution;
e physics department still requires its students to study Ger-
an despite pressure from the dean to be more flexible, and
her programs have been unwilling to consider adopting the
vriting through the curriculum" program that has been so suc-
ssful in the history department. Loose coupling also makes it
fficult to repair defective subsystems. Even though the dean
ows that there are significant weaknesses in the freshman
athematics program, the number of conflicting internal and
ternal influences on faculty recruitment, curriculum content,
d faculty development is so great that the dean despairs of
ing able to do much about it. In general, loose coupling
akes coordination of activities problematic and makes it dif-
ult to use administrative processes to effect change.

But loose coupling has significant benefits as well. Hav-
g partially independent and specialized organizational elements
creases Huxley's sensitivity to its environment. For example,
e college's small continuing education division, which had
erated almost independently and invisibly for years, was the
st unit at Huxley to sense the growing enrollment potential
the "new learner." The presence of that division also per-
tted Huxley to respond to the needs of these students with-
t immediately mobilizing all the other programs and subsys-
ns of the college. Over time, many programs were developed,
nging from courses by television to on-campus residential ex-
riences for senior citizens. Loose coupling made it possible
r Huxley to create and retain a large number of these novel
nd incompatible) solutions to the new situation. It also made
possible for them to seal off ineffective college components
that their failures remained localized. For example, even
ough the Shakespeare Dinner Theater program for working
ults proved to be an academic, fiscal, and culinary disaster,
her programs for new learners continued and prospered.

Coupling and Survival. Huxley College is a system com-
posed of subsystems that interact both among themselves and
with the environment outside the college's boundaries. Each sub-
system is relatively loosely or tightly coupled with each other
subsystem, depending on the extent to which common organiza-
tional elements are shared and are important to the subsystems.
Each subsystem is at the same time relatively loosely or tightly
coupled to environmental subsystems, again depending on the
extent to which they share common elements. A major change
in any subsystem, or in the environment, can be expected to
have a marked effect on any other subsystem to which it is rela-
tively tightly coupled and a weaker or less predictable effect if
there is loose coupling. In an open system, everything cannot be
tightly coupled to everything else, and loose coupling between
and within subsystems is more prevalent than tight coupling.

Huxley College has a large number of environmental rela-
tionships and demands that are inconsistent with each other.
For example, the college is under pressure from one part of the
environment to increase the test scores of entering students and
from another part to increase student access. Insisting on tight
coupling among all the institution's subsystems *and* between
those subsystems and the environment would cause Huxley to
"freeze" internally. Either it would be unable to respond to any
environmental stimuli at all or it would self-destruct in the im-
possible attempt to simultaneously respond to mutually incon-
sistent stimuli. Loose coupling makes it possible for Huxley to
develop subsystems (for example, an honors program and an
equal opportunity program) that respond separately to each of
these demands. Loose coupling therefore can be considered not
as evidence of organizational pathology or administrative failure
to be identified and corrected but rather as an adaptive device
essential to the survival of an open system (Weick, 1976). Ef-
fective administration may depend not on overcoming it but on
accepting and understanding it.

The Contingency Approach

The School System model of Huxley College includes
three major parts—the environment, the administrative subsys-

d the technical subsystem. The critical question is how
ystems (and the smaller subsystems within them, as well
rger subsystems of which they are a part) are connected
, because it is this pattern of loose and tight coupling
ines the system's organization. The behavior of a col-
niversity as a system depends critically on the details of
nnections. A contingency approach to organization sug-
t there is no one best pattern but at the same time that
patterns are equally effective (Galbraith, 1973). In a
uation, some ways of organizing are better than others.
ie School System model suggests that at least two
ust be considered in designing an effective administra-
tem—the environment and the technical subsystem.
nding the environment is critical, because organiza-
ve vital continuing and mutual transactions with ele-
utside their boundaries. Understanding the technical
m is important because it describes the characteristic
which colleges and universities transform their inputs
uts; these processes through which teaching, research,
ce are accomplished are the way the organization actual-
" its work. These two elements pose the greatest degree
tainty for an organization, and it is the differences in
mensions that lead to differences in organizations
on, 1967). We would therefore expect that to the ex-
: colleges and universities have different environments
nologies, they would also find different management
rnance systems to be most effective. The key adminis-
uestion, therefore, is what administrative and manage-
tures and behaviors will most effectively support the
ion's technical system, given certain characteristics of
onment.

e Environment of Colleges and Universities. We can
nd a great deal about why institutions act as they do if
rstand that they are responding to their perception of
ironment. This approach has been used recently in a
vay to study how institutions respond to changes in fi-
nd enrollment conditions in the economic sector of

their environment. But other environmental sectors, although
less studied, are also important. For example, general societal
values, political and legal constraints, changes in information
and technical processes, and physical and geographical matters
are all important elements of the environment with which orga-
nizations have to cope (Katz and Kahn, 1978).

Environments can be stable or turbulent, so that some in-
stitutions may exist in worlds that look much the same year to
year, while others constantly confront new and unexpected
problems as enrollments suddenly decline or external agencies
demand new and costly programs or reports. Some live in a
homogeneous world in which, for example, students have com-
mon backgrounds; others face a diverse world of students from
different cultures and with different levels of preparation. Insti-
tutions may find that necessary resources such as money or stu-
dents are either scattered randomly throughout the environ-
ment or clustered in identifiable areas, and while these resources
may be scarce for some colleges, they may be abundant for oth-
ers. Generalizations are difficult, but it probably can be said
that, on average, institutions are becoming less autonomous and
more connected into outside systems than in the past. The envi-
ronment of organizations increasingly consists of other organi-
zations. As environments become increasingly turbulent, they
evolve faster than their constituent organizations. Changes in
organizations are being caused more by their environments than
by internal forces (Terreberry, 1968).

The level of stability, homogeneity, clustering, and munif-
icence of the environment of Huxley College will affect its gov-
ernance and management systems. Since the environments of
other institutions are likely to be different from Huxley's, their
governance and management procedures should also differ. In-
stitutions must respond to environments that have different
economic, social value, political, informational, and physical
characteristics. This is true not only for institutions but for sub-
units within institutions as well. In order to be effective, the
subunits of an organization should parallel the characteristics of
the environment with which they must interact (Lawrence and
Lorsch, 1967). That is, simple environments call for simple pro-

structures, while complex environments call for com-
sses and structures. For example, colleges and univer-
have generally placid and consistent environments can
nal processes and structures that are reasonably uni-
e little changes, the coordination of the various sub-
sure organizational integration is relatively easy and
ttle attention. But as institutions become complex
me or all of their components to be related to envi-
that are different from each other, each subunit has
e and differentiate. As subunits look less alike, inte-
comes difficult, and additional resources and atten-
o be given to it.

governance and management of a highly differen-
tution are obviously likely to be significantly differ-
hose of a less differentiated one. Institutions faced
onmental uncertainty and diversity *must* be highly
ed if they are to be effective. That is why they have
ifferent kinds of organizational subunits, why their
ose so many problems of coordination, and why ra-
and defending their "nonbusinesslike" structure is so

Technical Subsystem of Colleges and Universities.
es can differ in terms of complexity (the number of
nents that the organization must simultaneously deal
ertainty or unpredictability (the uniformity of the
n which work is done and the ability to predict the
of work), and interdependence (whether work pro-
nterrelated) (Scott, 1981). Colleges and universities
lved in one way or another with doing the work re-
fulfilling their teaching, research, and service mis-
while the technologies of different institutional types
nore elements in common with each other than they
bank or a business firm, their technologies are also
ent in many ways. For example:

g, research, and service are each performed with the
ifferent technologies. As simple examples, teaching

typically involves classroom instruction, student advising, fi-
nal examinations, and communication with colleagues in the
same institution; research may require laboratory investiga-
tion, library work, and communication with colleagues in
other institutions; service programs utilize workshops, con-
sulting, extension centers, policy analyses, and communica-
tions with community agencies.

- Institutions allocate their work effort differently. Some give
primary attention to teaching and secondary attention to
service; others focus on teaching with particular emphasis on
general education and a distinctive model of scholarship
(Ruscio, 1987); still others emphasize research, with teach-
ing and service both given secondary emphasis.
- The raw materials to be worked on differ, and they affect
the technologies employed. In undergraduate education, for
instance, institutions that have an open-door admissions pol-
icy may give considerable attention to remedial education
technologies that are not utilized at all at selective institu-
tions.
- The people applying the technology at the various institu-
tions differ in terms of their preparation and skills. In some
institutions, almost all faculty have doctoral degrees and ex-
pertise in highly specialized areas; in others, most faculty
have only master's degrees.

Differences such as these create distinctive patterns of
technologies (Clark, 1983) at different institutions and, thus,
different ways in which people work together. Since the techni-
cal and managerial levels of the organization are interdependent,
these differences in technologies can be best supported by dif-
ferent management structures and processes (Newman, 1971).
When change is infrequent and the problems are precedented,
a stable management system may be appropriate. Centralized
decision making, coordination by rules and regulations, specific
planning with short horizons and limited participation, close
supervision, and emphasis on efficiency and dependability may
all be effective.

When change is frequent and the problems are prece-

e technology type calls for less centralization, coordi-
specialized planning units, planning of interlocking
with attention to intermediate goals, and emphasis on
nd when there is frequent need for change and there
recedents, the technology must be adaptive. Manage-
esses supporting adaptive systems are likely to be de-
d, to be coordinated through face-to-face interaction
e unit, to emphasize general plans that are adjusted
to feedback, and to give attention to learning based
nce.

ferences in Institutional Governance and Management.
tendency when discussing institutions of higher edu-
make general statements concerning the nature of the
e appropriate roles of various constituencies in gov-
ssues of organization and structure, and even mission
as if all institutions were alike. But in fact, as I have
how, colleges and universities may differ from each
variety of important ways, and these systemic differ-
ticularly as they are reflected in the institution's en-
and its technology—should significantly influence the
institutions are managed and governed. What is good
y College may be ineffectual at another institution.
at have compared institutions of various kinds have
differences in governance and management patterns
t be expected from their environmental and techno-
ferences (Baldridge, Curtis, Ecker, and Riley, 1978).
itutions with relatively stable technologies and envi-
should be able to function effectively using closed-
gic and bureaucratic structures. Complex environ-
technologies call for open-system logic. Failure to
these differences may lead managers to think of all
s as using closed-system logic, to view their internal
as confused, and to suggest the application of in-
e corrective doses of better (that is, tighter) manage-
vever, as a general rule, if a college or university is to
e, the more uncertain the technical core, the looser
he linkages to the management subsystem and the
linkages to the environment.

Thinking in Circles

I have discussed colleges and universities as open and dy-
namic systems composed of patterns of interacting elements
and subsystems loosely or tightly coupled to each other and to
their environments. What makes things "happen" in such sys-
tems, and how can we characterize the relationship between
causes and effects? We often think about institutions in a linear
fashion ("the faculty shapes the curriculum"). But the curricu-
lum affects the faculty as much as the faculty influences the
curriculum; a systems perspective requires us to replace linear
thinking with an understanding of how elements and subsys-
tems are connected to each other in nonlinear circles of recipro-
cal interaction and influence.

As an example, President Wagstaff thinks in circles (Weick,
1979) about the coupling between institutional prestige, student
enrollment, and financial resources. The circle in Figure 4 shows

Figure 4. A Circular System That Reinforces and Amplifies Change.
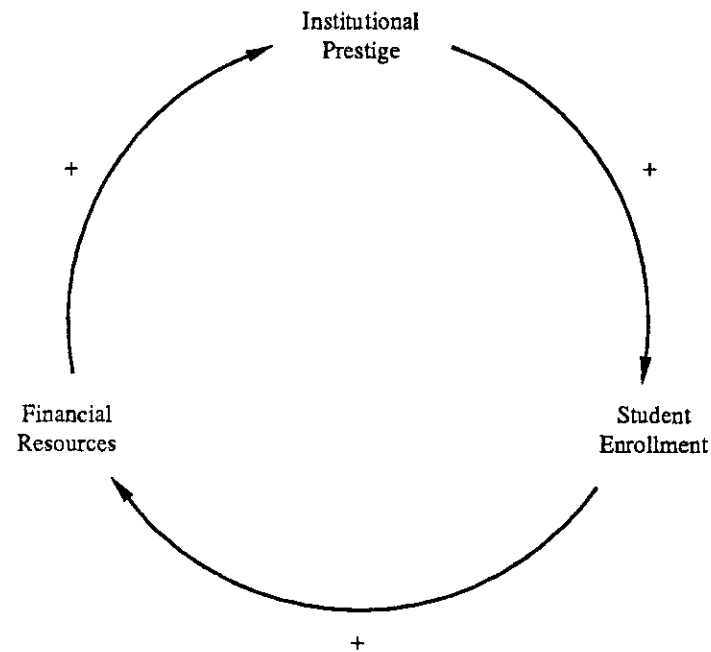
esident currently believes the important couplings to
these may change over time as the system itself
circle suggests that increases in prestige (for exam-
amed as one of the top twenty-five colleges in the
ll lead to increased enrollments, which in turn will
financial resources of Huxley and thus raise Huxley's
further. This kind of map suggests that a change in
lements will be reinforced and amplified as it moves
circle. In nonlinear systems such as Huxley, amplify-
ch as this make it possible for small changes in one
ystem to sometimes have very large effects.

circles of interaction are not reinforcing and ampli-
ther are self-correcting and stabilizing. For example,
splays the relationship among institutional prestige,
ollment, sense of community, and faculty morale at
ege. When prestige increases, student enrollment in-

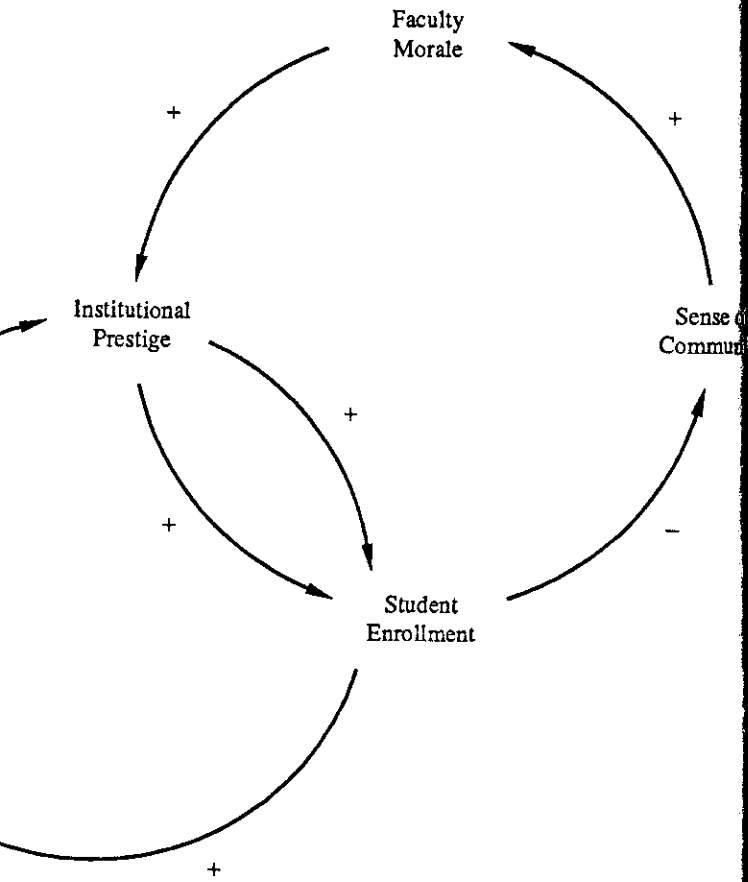A Circular System That Corrects and Stabilizes Change.
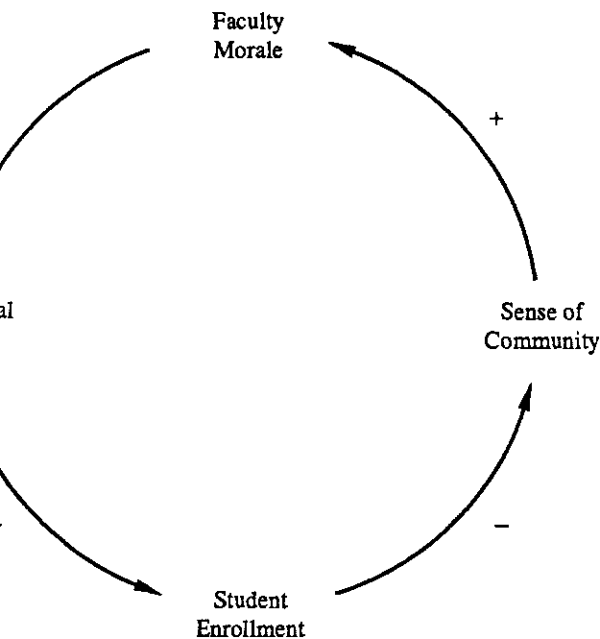
creases as well. Huxley has always prided itself on a sense of
community in which faculty and students knew each other well.
But if the number of students gets larger, the sense of commu-
nity on campus decreases. In turn, this reduces faculty morale.
As faculty morale declines, so does institutional prestige. En-
rollment then also diminishes, so that the sense of community
is restored. This kind of circle of interaction corrects and con-
trols changes as they move through the system. Stabilizing
loops such as this in nonlinear systems mean that large changes
in one element become buffered and can sometimes end up
having little effect at all.

These amplifying and stabilizing loops obviously over-
simplify the complicated relationships that exist between ele-
ments in the circles of interaction. If Huxley consisted only of
amplifying loops, any change in prestige or resources would set
off a never-ending growth in enrollment. If Huxley consisted
only of stabilizing loops, enrollment would eventually return to
its previous level regardless of what happened to prestige, re-
sources, or faculty morale. In fact, Huxley contains both types
of loop, and the future of the college is dependent not so much
on either loop separately but on how these loops are connected.

In Figure 6, for example, the two loops have been com-
bined into what has been called a "cause map" (Weick, 1979)
that shows how they share elements that may become loosely
or tightly coupled. The complex cause map is still not com-
plete, but it gives a representation of the factors that tie to-
gether enrollment, prestige, community, morale, and financial
resources at Huxley that is more accurate than that shown by
either loop alone. Even if the model was complete and correct,
the fact that dynamic systems are always changing and never
look exactly the same would still make it impossible to accu-
rately predict the consequences of changing any single element
in the system. But by giving President Wagstaff a more compli-
cated sense of the dynamics of Huxley, it may prevent him from
making a bad decision on the basis of a simplistic view of how
the college works.

Maps such as these can aid understanding to the extent
that we can identify the relevant variables, the looseness or tight-

Figure 6. A Cause Map at Huxley College.

tations that the results of administrative actions will necessarily be direct or long lasting and teach us that problems may continually emerge and require attention; they can help us to understand why cause and effect are problematic at best; and they can help administrators think of factors that might influence a proposed action (even though they might not be obviously related to it) and to consider appropriate preventive measures.

Whether consciously or unconsciously, administrators often act on the basis of these kinds of maps. Thinking in circles rather than in straight lines provides a better understanding of organizational dynamics and can make administrators more effective. It often does this not by suggesting what we should do but rather by cautioning us about what not to do. Circular thinking can also lead to administrative indecision and impotence if it is misinterpreted to mean that nothing can be done and that nothing will make a difference. Administrators can make a difference, and consciously attempting to think of circles and other indirect connections will help in determining the potential effectiveness of various strategies and tactics.

Implications for Administrators

In this chapter I have introduced the basic idea of colleges and universities as open systems that are engaged in a number of continuing exchange processes with their environments. These institutions can be thought of as composed of subsystems that are related to each other through shared organizational elements. If these subsystems were tightly connected to each other, a change in one would directly affect them all. Since this often does not happen, it is useful to think of institutions of higher education as consisting of loosely coupled systems. While loose coupling can cause problems for administrators who wish to correct institutional problems or to promote change, it also serves important functions in both preserving institutions and making them adaptable and responsive.

Organizational elements are connected in ways that either intensify or stabilize system responses to environmental pres-

heir couplings or interactions, and their relative impor-
it even when the critical variables are simple and the
ips clear, predictions of organizational outcomes from
ative behaviors can never be certain. Thinking about
s loops of interaction therefore is not so much an ad-
ive tool as a way of developing a model of administra-
ght. Such models help to suggest that things may be
nplex than they appear and prevent us from expecting
solutions to be effective; they can reduce our expec-

anges in one part of the organization may affect other
ough a sequence of relationships, rather than directly.
s to an administrative action may occur long after the
elf has been taken. Small initial actions may have ex-
arge consequences, and because the interaction is non-
 outcomes may not be predictable and are often quite
from those originally intended.

ese basic concepts of systems, loose coupling, and
haps will be critical in later chapters to a more com-
erstanding of college and university organization and
ent. Before exploring their significance in greater
wever, other more obvious implications for adminis-
ould be considered.

se and Effect. Because the elements and subsystems
ganization are coupled (either tightly or loosely) to
r and to the environment with which they are linked
ious exchange, their relationships are interactive and
. If cause A leads to effect B, then that effect becomes
ause that then leads to effect C, which becomes a new
d so on. As administrators, we may tend to think in
ed cause-effect chains and to consider the direction of
tionships as linear. Viewing colleges and universities as
should make us less certain about our assumptions
it us to realize that the point at which we break
se-and-effect loop and separate one from the other is
itrary. Sometimes what we see as an effect is really a
r example, does increased centralization of decision
public systems lead to faculty bargaining, or does fac-
aining lead to increased centralization of decision mak-
nstitutional research offices started because data needs
or do data needs increase because institutional research
 created? Does disaffection cause faculty to avoid par-
 in governance activities, or does lack of participation
culty disaffection? Our often untested assumptions
se and effect may lead us to act in a manner that un-
y exacerbates rather than corrects our problems.

Time and Administrative Behavior. Recognition of cause
and effect is constrained by the time it takes to see changes
made in one part of a loosely coupled system have a measurable
effect on another part. The greater the separation in time, the
less obvious the cause-and-effect relationship will be. Adminis-
trators attempting to understand the impact of their behavior in
a specific situation may often have to decide whether their ac-
tion had no effect, whether their action will have a planned ef-
fect that has not yet been felt, whether their action has had an
unplanned effect that has not yet been recognized, or whether a
planned outcome was actually due to the presumed cause. In
each case, the data available to them are likely to be limited and
ambiguous, and their conclusions may be based more on their
preconceptions and hopes than on careful analysis.

Administrators who often move from one institution to
another may be faced with a comparable dilemma. If some posi-
tive effects of their behaviors become evident immediately, but
due to loose coupling the large-scale negative effects are not visi-
ble until after they have left the system, they may "learn" (in-
correctly) that their actions have been successful. They may re-
peat these actions in their new setting, continuing the same cycle
of ineffective behavior and uncorrected feedback. A president
may develop an undeserved reputation for successfully "turning
an institution around" through disruptive activities that lead to
short-term accomplishments. Successors may be left to reap the
long-term whirlwind. The same problems that may lead admin-
istrators to incorrectly assess their successes may also lead them
incorrectly to believe that they have failed; they may observe
short-term negative consequences but leave before long-term
benefits become evident.

Predictability. The relationships between the environment
and organizational subsystems, and between the subsystems
themselves, are exceptionally complex. We usually cannot specify
with assurance precisely what the relevant elements are or how
they interact. For that reason, administrative actions may some-
times have a very dramatic and expected effect, but at other

al actions may appear to have little or no effect
nally may have an effect directly opposite to the
d). This is what is meant by the "counterintuitive
social systems"; things happen that appear contrary
sense. We may fail to get what we want not because
planned well enough but because many aspects of
do not operate in a manner that conforms to con-
ministrative rationality. One common administra-
is to try to correct this organizational perversity
he system more rational through tighter controls.
s often makes the problem worse, much of organi-
s so equivocal that we can easily fool ourselves into
t things have gotten better. Rather than trying to
s more predictable, administrators might be better
now to increase their effectiveness under conditions
tability.

nces Between Institutions. Even though institu-
ious kinds may be quite different, administrators
discuss issues of college and university faculty, gov-
cture, and processes as if that were not true and to
native ideas such as "shared authority" without re-
anizational differences. For example, the technol-
ed by an open-admissions college in educating stu-
y to be considerably different from the technology
selective liberal arts college. Systems theory makes
understand why these differences in the technical
re almost certain to be reflected in differences in
tems as well. In particular, administrators should be
ne management subsystems of two different institu-
ely to be different and, indeed, that if their technol-
then their management systems *should* vary. We
re learn to be wary of any normative statement of
on or management that does not clearly specify the
es of the type of organization to which it is to apply.

leed for Unlearning. Differences in organizational
are reflected in the kinds of loops and cause maps

that we develop. Because of our experiences in one kind of
organizational setting, we "learn" which organizational ele-
ments affect others, and we internalize cause maps on which we
act. We usually do not think through these maps, and, because
they are often not developed through self-conscious reflection,
they tend to be simplistic and to contain many untested as-
sumptions. When administrators move to new institutions, they
may bring their old cause maps with them. Whetten and Cam-
eron (1985, p. 41) suggest that administrators who move from
one institution to another may be ineffective because of pre-
conceptions "linked to previous personal successes at other uni-
versities." Becoming aware of the elements and relationships
that form our cause maps permits us in new institutions to rec-
ognize the need to unlearn previous maps.

The linear and nonlinear modes of thought discussed in
this chapter are related to very different administrative world
views. Administrators who see the world as linear believe that
their institutions should function in a regular and steady man-
ner. Fluctuations and exceptions are indications of problems
that they should attend to and correct. Administrators who ap-
preciate nonlinearity recognize that systems will often exhibit
what may appear to be random behavior. They realize that
erratic and even bizarre outcomes in the short term may not be
an indication of long-term problems, but rather are expected in
complex systems. Interventions may make them worse; if al-
lowed to run their course, they will often disappear.

Administrators with linear perspectives are likely to em-
phasize making rational decisions; administrators with nonlinear
perspectives are likely to be concerned with making sense. Lin-
ear administrators think they know how the system works and
how to change it; nonlinear administrators are more modest in
their assumptions and their expectations. The differences in the
processes and assumptions of these alternative orientations are
the subject of the next chapter.