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Evolution and revolution as organizations grow

*A company's past has clues for management
that are critical to future success*

Foreword

This author maintains that growing organizations move through five distinguishable phases of development, each of which contains a relatively calm period of growth that ends with a management crisis. He argues, moreover, that since each phase is strongly influenced by the previous one, a management with a sense of its own organization's history can anticipate and prepare for the next developmental crisis. This

article provides a prescription for appropriate management action in each of the five phases, and it shows how companies can turn organizational crises into opportunities for future growth.

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A small research company chooses too complicated and formalized an organization structure for its young age and limited size. It flounders in rigidity and bureaucracy for several years and is finally acquired by a larger company.

Key executives of a retail store chain hold on to an organization structure long after it has served its purpose, because their power is derived

from this structure. The company eventually goes into bankruptcy.

A large bank disciplines a "rebellious" manager who is blamed for current control problems, when the underlying cause is centralized pro-

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cedures that are holding back expansion into new markets. Many younger managers subsequently leave the bank, competition moves in, and profits are still declining.

The problems of these companies, like those of many others, are rooted more in past decisions than in present events or outside market dynamics. Historical forces do indeed shape the future growth of organizations. Yet management, in its haste to grow, often overlooks such critical developmental questions as: Where has our organization been? Where is it now? And what do the answers to these questions mean for where we are going? Instead, its gaze is fixed outward toward the environment and the future—as if more precise market projections will provide a new organizational identity.

Companies fail to see that many clues to their future success lie within their own organizations and their evolving states of development. Moreover, the inability of management to understand its organization development problems can result in a company becoming "frozen" in its present stage of evolution or, ultimately, in failure, regardless of market opportunities.

My position in this article is that the future of an organization may be less determined by outside forces than it is by the organization's history. In stressing the force of history on an organization, I have drawn from the legacies of European psychologists (their thesis being that individual behavior is determined primarily by previous events and experiences, not by what lies ahead). Extending this analogy of individual development to the problems of organization development, I shall discuss a series of developmental phases through which growing companies tend to pass. But, first, let me provide two definitions:

1. The term *evolution* is used to describe pro-

longed periods of growth where no major upheaval occurs in organization practices.

2. The term *revolution* is used to describe those periods of substantial turmoil in organization life.

As a company progresses through developmental phases, each evolutionary period creates its own revolution. For instance, centralized practices eventually lead to demands for decentralization. Moreover, the nature of management's solution to each revolutionary period determines whether a company will move forward into its next stage of evolutionary growth. As I shall show later, there are at least five phases of organization development, each characterized by both an evolution and a revolution.

Key forces in development

During the past few years a small amount of research knowledge about the phases of organization development has been building. Some of this research is very quantitative, such as time-series analyses that reveal patterns of economic performance over time.¹ The majority of studies, however, are case-oriented and use company records and interviews to reconstruct a rich picture of corporate development.² Yet both types of research tend to be heavily empirical without attempting more generalized statements about the overall process of development.

A notable exception is the historical work of Alfred D. Chandler, Jr., in his book *Strategy and Structure*.³ This study depicts four very broad and general phases in the lives of four large U.S. companies. It proposes that outside market opportunities determine a company's strategy, which in turn determines the company's organization structure. This thesis has a valid ring for the four companies examined by Chandler, largely because they developed in a time of explosive markets and technological advances. But more recent evidence suggests that organization structure may be less malleable than Chandler assumed; in fact, structure can play a critical role in influencing corporate strategy. It is this reverse emphasis on how organization structure affects future growth which is highlighted in the model presented in this article.

From an analysis of recent studies,⁴ five key dimensions emerge as essential for building a model of organization development:

1. Age of the organization.

1. See, for example, William H. Starbuck, "Organizational Metamorphosis," in *Promising Research Directions*, edited by R.W. Millman and M.P. Hottenstein (Tempe, Arizona, Academy of Management, 1968), p. 113.

2. See, for example, the *Grangesberg* case series, prepared by C. Roland Christensen and Bruce R. Scott, Case Clearing House, Harvard Business School.

3. *Strategy and Structure: Chapters in the History of the American Industrial Enterprise* (Cambridge, Massachusetts, The M.I.T. Press, 1962).

4. I have drawn on many sources for evidence: (a) numerous cases collected at the Harvard Business School; (b) *Organization Growth and Development*, edited by William H. Starbuck (Middlesex, England, Penguin Books, Ltd., 1971), where several studies are cited; and (c) articles published in journals, such as Lawrence E. Fouraker and John M. Stopford, "Organization Structure and the Multinational Strategy," *Administrative Science Quarterly*, Vol. 13, No. 1, 1968, p. 47; and Malcolm S. Salter, "Management Appraisal and Reward Systems," *Journal of Business Policy*, Vol. 1, No. 4, 1971.

2. Size of the organization.
3. Stages of evolution.
4. Stages of revolution.
5. Growth rate of the industry.

I shall describe each of these elements separately, but first note their combined effect as illustrated in *Exhibit I*. Note especially how each dimension influences the other over time; when all five elements begin to interact, a more complete and dynamic picture of organizational growth emerges.

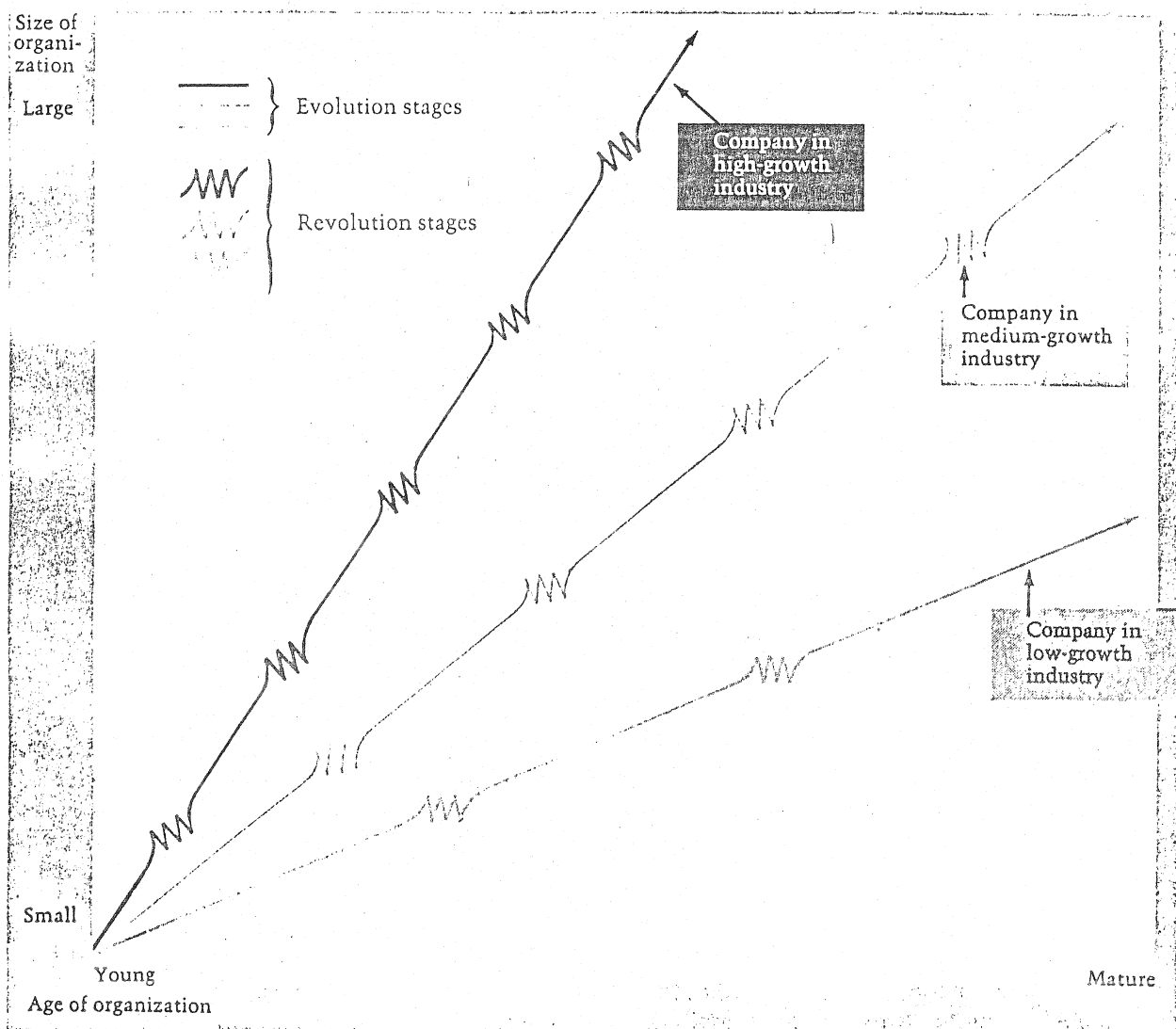
After describing these dimensions and their interconnections, I shall discuss each evolutionary/revolutionary phase of development and show (a) how each stage of evolution breeds its own revolution, and (b) how management solu-

tions to each revolution determine the next stage of evolution.

Age of the organization

The most obvious and essential dimension for any model of development is the life span of an organization (represented as the horizontal axis in *Exhibit I*). All historical studies gather data from various points in time and then make comparisons. From these observations, it is evident that the same organization practices are not maintained throughout a long time span. This makes a most basic point: management problems and principles are rooted in time. The concept of decentralization, for example, can have meaning for describing corporate practices

Exhibit I. Model of organization development



at one time period but loses its descriptive power at another.

The passage of time also contributes to the institutionalization of managerial attitudes. As a result, employee behavior becomes not only more predictable but also more difficult to change when attitudes are outdated.

Size of the organization

This dimension is depicted as the vertical axis in *Exhibit I*. A company's problems and solutions tend to change markedly as the number of employees and sales volume increase. Thus, time is not the only determinant of structure; in fact, organizations that do not grow in size can retain many of the same management issues and practices over lengthy periods. In addition to increased size, however, problems of coordination and communication magnify, new functions emerge, levels in the management hierarchy multiply, and jobs become more interrelated.

Stages of evolution

As both age and size increase, another phenomenon becomes evident: the prolonged growth that I have termed the evolutionary period. Most growing organizations do not expand for two years and then retreat for one year; rather, those that survive a crisis usually enjoy four to eight years of continuous growth without a major economic setback or severe internal disruption. The term evolution seems appropriate for describing these quieter periods because only modest adjustments appear necessary for maintaining growth under the same overall pattern of management.

Stages of revolution

Smooth evolution is not inevitable; it cannot be assumed that organization growth is linear. *Fortune's* "500" list, for example, has had significant turnover during the last 50 years. Thus we find evidence from numerous case histories which reveals periods of substantial turbulence spaced between smoother periods of evolution.

I have termed these turbulent times the periods of revolution because they typically exhibit a serious upheaval of management practices. Traditional management practices, which were appropriate for a smaller size and earlier time, are brought under scrutiny by frustrated top

managers and disillusioned lower-level managers. During such periods of crisis, a number of companies fail—those unable to abandon past practices and effect major organization changes are likely either to fold or to level off in their growth rates.

The critical task for management in each revolutionary period is to find a new set of organization practices that will become the basis for managing the next period of evolutionary growth. Interestingly enough, these new practices eventually sow their own seeds of decay and lead to another period of revolution. Companies therefore experience the irony of seeing a major solution in one time period become a major problem at a latter date.

Growth rate of the industry

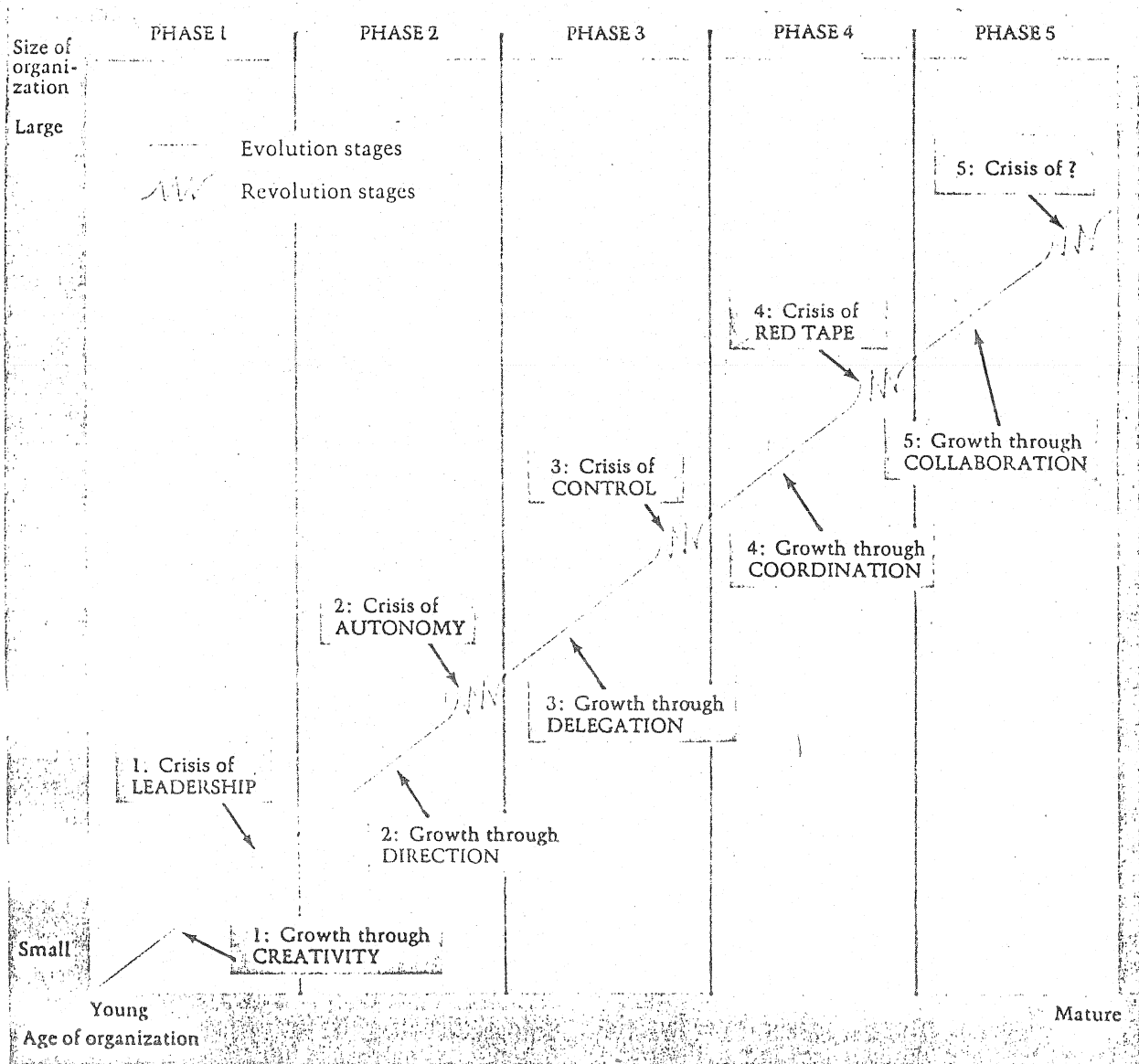
The speed at which an organization experiences phases of evolution and revolution is closely related to the market environment of its industry. For example, a company in a rapidly expanding market will have to add employees rapidly; hence, the need for new organization structures to accommodate large staff increases is accelerated. While evolutionary periods tend to be relatively short in fast-growing industries, much longer evolutionary periods occur in mature or slowly growing industries.

Evolution can also be prolonged, and revolutions delayed, when profits come easily. For instance, companies that make grievous errors in a rewarding industry can still look good on their profit and loss statements; thus they can avoid a change in management practices for a longer period. The aerospace industry in its infancy is an example. Yet revolutionary periods still occur, as one did in aerospace when profit opportunities began to dry up. Revolutions seem to be much more severe and difficult to resolve when the market environment is poor.

Phases of growth

With the foregoing framework in mind, let us now examine in depth the five specific phases of evolution and revolution. As shown in *Exhibit II*, each evolutionary period is characterized by the dominant *management style* used to achieve growth, while each revolutionary period is characterized by the dominant *management problem* that must be solved before growth can continue. The patterns presented in *Exhibit II* seem to be

Exhibit II. The five phases of growth



typical for companies in industries with moderate growth over a long time period; companies in faster growing industries tend to experience all five phases more rapidly, while those in slower growing industries encounter only two or three phases over many years.

It is important to note that *each phase is both an effect of the previous phase and a cause for the next phase*. For example, the evolutionary management style in Phase 3 of the exhibit is "delegation," which grows out of, and becomes the solution to, demands for greater "autonomy" in the preceding Phase 2 revolution. The style of delegation used in Phase 3, however, eventually provokes a major revolutionary crisis that

is characterized by attempts to regain control over the diversity created through increased delegation.

The principal implication of each phase is that management actions are narrowly prescribed if growth is to occur. For example, a company experiencing an autonomy crisis in Phase 2 cannot return to directive management for a solution—it must adopt a new style of delegation in order to move ahead.

Phase 1: Creativity . . .

In the birth stage of an organization, the emphasis is on creating both a product and a mar-

ket. Here are the characteristics of the period of creative evolution:

- The company's founders are usually technically or entrepreneurially oriented, and they disdain management activities; their physical and mental energies are absorbed entirely in making and selling a new product.

- Communication among employees is frequent and informal.

- Long hours of work are rewarded by modest salaries and the promise of ownership benefits.

- Control of activities comes from immediate marketplace feedback; the management acts as the customers react.

... *e) the leadership crisis:* All of the foregoing individualistic and creative activities are essential for the company to get off the ground. But therein lies the problem. As the company grows, larger production runs require knowledge about the efficiencies of manufacturing. Increased numbers of employees cannot be managed exclusively through informal communication; new employees are not motivated by an intense dedication to the product or organization. Additional capital must be secured, and new accounting procedures are needed for financial control.

Thus the founders find themselves burdened with unwanted management responsibilities. So they long for the "good old days," still trying to act as they did in the past. And conflicts between the harried leaders grow more intense.

At this point a crisis of leadership occurs, which is the onset of the first revolution. Who is to lead the company out of confusion and solve the managerial problems confronting it? Quite obviously, a strong manager is needed who has the necessary knowledge and skill to introduce new business techniques. But this is easier said than done. The founders often hate to step aside even though they are probably temperamentally unsuited to be managers. So here is the first critical developmental choice—to locate and install a strong business manager who is acceptable to the founders and who can pull the organization together.

Phase 2: Direction . . .

Those companies that survive the first phase by installing a capable business manager usually embark on a period of sustained growth under able and directive leadership. Here are the characteristics of this evolutionary period:

- A functional organization structure is in-

troduced to separate manufacturing from marketing activities, and job assignments become more specialized.

- Accounting systems for inventory and purchasing are introduced.

- Incentives, budgets, and work standards are adopted.

- Communication becomes more formal and impersonal as a hierarchy of titles and positions builds.

- The new manager and his key supervisors take most of the responsibility for instituting direction, while lower-level supervisors are treated more as functional specialists than as autonomous decision-making managers.

... *e) the autonomy crisis:* Although the new directive techniques channel employee energy more efficiently into growth, they eventually become inappropriate for controlling a larger, more diverse and complex organization. Lower-level employees find themselves restricted by a cumbersome and centralized hierarchy. They have come to possess more direct knowledge about markets and machinery than do the leaders at the top; consequently, they feel torn between following procedures and taking initiative on their own.

Thus the second revolution is imminent as a crisis develops from demands for greater autonomy on the part of lower-level managers. The solution adopted by most companies is to move toward greater delegation. Yet it is difficult for top managers who were previously successful at being directive to give up responsibility. Moreover, lower-level managers are not accustomed to making decisions for themselves. As a result, numerous companies flounder during this revolutionary period, adhering to centralized methods while lower-level employees grow more disenchanted and leave the organization.

Phase 3: Delegation . . .

The next era of growth evolves from the successful application of a decentralized organization structure. It exhibits these characteristics:

- Much greater responsibility is given to the managers of plants and market territories.

- Profit centers and bonuses are used to stimulate motivation.

- The top executives at headquarters restrain themselves to managing by exception, based on periodic reports from the field.

- Management often concentrates on making

new acquisitions which can be lined up beside other decentralized units.

○ Communication from the top is infrequent, usually by correspondence, telephone, or brief visits to field locations.

The delegation stage proves useful for gaining expansion through heightened motivation at lower levels. Decentralized managers with greater authority and incentive are able to penetrate larger markets, respond faster to customers, and develop new products.

... *⊗ the control crisis*: A serious problem eventually evolves, however, as top executives sense that they are losing control over a highly diversified field operation. Autonomous field managers prefer to run their own shows without coordinating plans, money, technology, and manpower with the rest of the organization. Freedom breeds a parochial attitude.

Hence, the Phase 3 revolution is under way when top management seeks to regain control over the total company. Some top managements attempt a return to centralized management, which usually fails because of the vast scope of operations. Those companies that move ahead find a new solution in the use of special coordination techniques.

Phase 4: Coordination ...

During this phase, the evolutionary period is characterized by the use of formal systems for achieving greater coordination and by top executives taking responsibility for the initiation and administration of these new systems. For example:

○ Decentralized units are merged into product groups.

○ Formal planning procedures are established and intensively reviewed.

○ Numerous staff personnel are hired and located at headquarters to initiate company-wide programs of control and review for line managers.

○ Capital expenditures are carefully weighed and parceled out across the organization.

○ Each product group is treated as an investment center where return on invested capital is an important criterion used in allocating funds.

○ Certain technical functions, such as data processing, are centralized at headquarters, while daily operating decisions remain decentralized.

○ Stock options and companywide profit shar-

ing are used to encourage identity with the firm as a whole.

All of these new coordination systems prove useful for achieving growth through more efficient allocation of a company's limited resources. They prompt field managers to look beyond the needs of their local units. While these managers still have much decision-making responsibility, they learn to justify their actions more carefully to a "watchdog" audience at headquarters.

... *⊗ the red-tape crisis*: But a lack of confidence gradually builds between line and staff, and between headquarters and the field. The proliferation of systems and programs begins to exceed its utility; a red-tape crisis is created. Line managers, for example, increasingly resent heavy staff direction from those who are not familiar with local conditions. Staff people, on the other hand, complain about uncooperative and uninformed line managers. Together both groups criticize the bureaucratic paper system that has evolved. Procedures take precedence over problem solving, and innovation is dampened. In short, the organization has become too large and complex to be managed through formal programs and rigid systems. The Phase 4 revolution is under way.

Phase 5: Collaboration ...

The last observable phase in previous studies emphasizes strong interpersonal collaboration in an attempt to overcome the red-tape crisis. Where Phase 4 was managed more through formal systems and procedures, Phase 5 emphasizes greater spontaneity in management action through teams and the skillful confrontation of interpersonal differences. Social control and self-discipline take over from formal control. This transition is especially difficult for those experts who created the old systems as well as for those line managers who relied on formal methods for answers.

The Phase 5 evolution, then, builds around a more flexible and behavioral approach to management. Here are its characteristics:

○ The focus is on solving problems quickly through team action.

○ Teams are combined across functions for task-group activity.

○ Headquarters staff experts are reduced in number, reassigned, and combined in interdis-

disciplinary teams to consult with, not to direct, field units.

○ A matrix-type structure is frequently used to assemble the right teams for the appropriate problems.

○ Previous formal systems are simplified and combined into single multipurpose systems.

○ Conferences of key managers are held frequently to focus on major problem issues.

○ Educational programs are utilized to train managers in behavioral skills for achieving better teamwork and conflict resolution.

○ Real-time information systems are integrated into daily decision making.

○ Economic rewards are geared more to team performance than to individual achievement.

○ Experiments in new practices are encouraged throughout the organization.

... e) *the 3 crisis*: What will be the revolution in response to this stage of evolution? Many large U.S. companies are now in the Phase 5 evolutionary stage, so the answers are critical. While there is little clear evidence, I imagine the revolution will center around the "psychological saturation" of employees who grow emotionally and physically exhausted by the intensity of teamwork and the heavy pressure for innovative solutions.

My hunch is that the Phase 5 revolution will be solved through new structures and programs that allow employees to periodically rest, reflect, and revitalize themselves. We may even see companies with dual organization structures: a "habit" structure for getting the daily work done, and a "reflective" structure for stimulating perspective and personal enrichment. Employees could then move back and forth between the two structures as their energies are dissipated and refueled.

One European organization has implemented just such a structure. Five reflective groups have been established outside the regular structure for the purpose of continuously evaluating five task activities basic to the organization. They report directly to the managing director, although their reports are made public throughout the organization. Membership in each group includes all levels and functions, and employees are rotated through these groups on a six-month basis.

Other concrete examples now in practice include providing sabbaticals for employees, moving managers in and out of "hot spot" jobs, establishing a four-day workweek, assuring job

security, building physical facilities for relaxation *during* the working day, making jobs more interchangeable, creating an extra team on the assembly line so that one team is always off for reeducation, and switching to longer vacations and more flexible working hours.

The Chinese practice of requiring executives to spend time periodically on lower-level jobs may also be worth a nonideological evaluation. For too long U.S. management has assumed that career progress should be equated with an upward path toward title, salary, and power. Could it be that some vice presidents of marketing might just long for, and even benefit from, temporary duty in the field sales organization?

Implications of history

Let me now summarize some important implications for practicing managers. First, the main features of this discussion are depicted in *Exhibit III*, which shows the specific management actions that characterize each growth phase. These actions are also the solutions which ended each preceding revolutionary period.

In one sense, I hope that many readers will react to my model by calling it obvious and natural for depicting the growth of an organization. To me this type of reaction is a useful test of the model's validity.

But at a more reflective level I imagine some of these reactions are more hindsight than foresight. Those experienced managers who have been through a developmental sequence can empathize with it now, but how did they react when in the middle of a stage of evolution or revolution? They can probably recall the limits of their own developmental understanding at that time. Perhaps they resisted desirable changes or were even swept emotionally into a revolution without being able to propose constructive solutions. So let me offer some explicit guidelines for managers of growing organizations to keep in mind.

Know where you are in the developmental sequence.

Every organization and its component parts are at different stages of development. The task of top management is to be aware of these stages; otherwise, it may not recognize when the time for change has come, or it may act to impose the wrong solution.

Exhibit III. Organization practices during evolution in the five phases of growth

Category	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
MANAGEMENT FOCUS	Make & sell	Efficiency of operations	Expansion of market	Consolidation of organization	Problem solving & innovation
ORGANIZATION STRUCTURE	Informal	Centralized & functional	Decentralized & geographical	Line-staff & product groups	Matrix of teams
TOP MANAGEMENT STYLE	Individualistic & entrepreneurial	Directive	Delegative	Watchdog	Participative
CONTROL SYSTEM	Market results	Standards & cost centers	Reports & profit centers	Plans & investment centers	Mutual goal setting
MANAGEMENT REWARD EMPHASIS	Ownership	Salary & merit increases	Individual bonus	Profit sharing & stock options	Team bonus

Top leaders should be ready to work with the flow of the tide rather than against it; yet they should be cautious, since it is tempting to skip phases out of impatience. Each phase results in certain strengths and learning experiences in the organization that will be essential for success in subsequent phases. A child prodigy, for example, may be able to read like a teenager, but he cannot behave like one until he ages through a sequence of experiences.

I also doubt that managers can or should act to avoid revolutions. Rather, these periods of tension provide the pressure, ideas, and awareness that afford a platform for change and the introduction of new practices.

Recognize the limited range of solutions.

In each revolutionary stage it becomes evident that this stage can be ended only by certain specific solutions; moreover, these solutions are different from those which were applied to the problems of the preceding revolution. Too often it is tempting to choose solutions that were tried before, which makes it impossible for a new phase of growth to evolve.

Management must be prepared to dismantle current structures before the revolutionary stage becomes too turbulent. Top managers, realizing that their own managerial styles are no longer appropriate, may even have to take themselves out of leadership positions. A good Phase 2 manager facing Phase 3 might be wise to find another Phase 2 organization that better fits his talents, either outside the company or with one of its newer subsidiaries.

Finally, evolution is not an automatic affair; it is a contest for survival. To move ahead, companies must consciously introduce planned structures that not only are solutions to a current crisis but also are fitted to the next phase of growth. This requires considerable self-awareness on the part of top management, as well as great interpersonal skill in persuading other managers that change is needed.

Realize that solutions breed new problems.

Managers often fail to realize that organizational solutions create problems for the future (i.e., a decision to delegate eventually causes a problem of control). Historical actions are very much

determinants of what happens to the company at a much later date.

An awareness of this effect should help managers to evaluate company problems with greater historical understanding instead of "pinning the blame" on a current development. Better yet, managers should be in a position to *predict* future problems, and thereby to prepare solutions and coping strategies before a revolution gets out of hand.

A management that is aware of the problems ahead could well decide *not* to grow. Top managers may, for instance, prefer to retain the informal practices of a small company, knowing that this way of life is inherent in the organization's limited size, not in their congenial personalities. If they choose to grow, they may do themselves out of a job and a way of life they enjoy.

And what about the managements of very large organizations? Can they find new solutions for continued phases of evolution? Or are they

reaching a stage where the government will act to break them up because they are too large.

Concluding note

Clearly, there is still much to learn about processes of development in organizations. The phases outlined here are only five in number and are still only approximations. Researchers are just beginning to study the specific developmental problems of structure, control, rewards, and management style in different industries and in a variety of cultures.

One should not, however, wait for conclusive evidence before educating managers to think and act from a developmental perspective. The critical dimension of time has been missing for too long from our management theories and practices. The intriguing paradox is that by learning more about history we may do a better job in the future.

An end to growth?

The battle between the forces of growth and the restraints of nature may be resolved in a number of ways. Man, if he understands well enough and acts wisely, can choose a path out of the conflict of world pressures that is more favorable than present actions, attitudes, and policies portend. Such a path must be toward a non-growing and balanced condition of the world system. . . .

Population, capital investment, pollution, food consumption, and standard of living have been growing exponentially throughout recorded history. Man has come to expect growth, to see it as the natural condition of human behavior, and to equate growth with "progress." We speak of the annual percentage growth in gross national product (GNP) and in population. Quantities that grow by a fixed percentage per year are exhibiting "exponential" growth. But exponential growth cannot continue indefinitely.

Pure exponential growth possesses the characteristic of behaving according to a "doubling time." Each fixed time interval shows a doubling of the relevant system variable. Exponential growth is treacherous and misleading. A system variable can continue through many doubling intervals without seeming to reach significant size. But then, in one or two more doubling periods, still following the same law of exponential growth, it suddenly seems to become overwhelming.

The psychological impact of exponential growth is seldom appreciated. Suppose that some ultimate physical limit stands in the way of a quantity that is growing exponentially. In all previous time before the limit is approached, the quantity is much smaller than the limit. The very existence of the limit may be unrealized. No clash between the growing quantity and the limit forces attention to the eventual pressures that must arise. Then suddenly, within one doubling interval, the quantity grows from half the limit to the limit. The stresses from overexpansion become highly visible; they can no longer be ignored. If the pressures created by approach to the limit are not great enough to suppress growth, then growth continues until the limit has been overstepped far enough to generate forces sufficient to inhibit growth.

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Cambridge, Massachusetts,
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1971, pp. 2-3.