CHAPTER 9

DECISION MAKING IN SCHOOLS

The task of "deciding" pervades the entire administrative organization. . . . A general theory of administration must include principles of organization that will insure correct decision making, just as it must include principles that will insure effective action.

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Administrative Behavior

PREVIEW

1. Administrative decision making is a dynamic process that solves some organizational problems and, in the process, often creates others.
2. Decision making is a general pattern of action found in the rational administration of all functional and task areas in organizations.
3. Values are an integral part of decision making.
4. The classical decision-making model uses a strategy of optimizing to maximize the achievement of goals, but the model is an ideal rather than an actual description of practice.
5. Satisficing is a pragmatic decision-making strategy that some administrators use to solve the problems of practice.
6. Most administrators probably use an incremental model of deciding; they muddle through.
7. An adaptive strategy of deciding unites the rationalism and comprehensiveness of satisficing with the flexibility and utility of the incremental model.
8. Like most complex processes, however, there is no single best way to decide; the best approach is the one that best fits the circumstances: a contingency approach is proposed.
9. Not all organizational decisions are rational; the garbage can model helps explain nonrational decision making.
10. Irrationality in decision making is often produced by stress; the Janis-Mann conflict model describes the pitfalls of defective decision making.
11. Sometimes participation improves the quality of decisions; sometimes it does not. The Hoy-Tarter model suggests when and how to involve subordinates in decision making.

12. One of the dangers of group decision making is group think, shared illusions about the correctness and invulnerability of the group.
13. Groupthink can be avoided by understanding its causes and by appropriately structuring group decision making.

Decision making is a major responsibility of all administrators, but until decisions are converted into action they are only good intentions. Deciding is a sine qua non of educational administration because the school, like all formal organizations, is basically a decision-making structure. Our analysis begins with an examination of classical decision making.

THE CLASSICAL MODEL: AN OPTIMIZING STRATEGY

Classical decision theory assumes that decisions should be completely rational; it employs an **optimizing** strategy by seeking the best possible alternative to maximize the achievement of goals and objectives. According to the classical model, the decision-making process is a series of sequential steps:

1. A problem is identified)
2. Goals and objectives are established.
3. *All* the possible alternatives are generated.
4. The consequences of each alternative are consideredft
5. All the alternatives are evaluated in terms of the goals and objectives.
6. The *best* alternative is selected—that is, the one that maximizes the *k* goals and objectives.
7. Finally, the decision is implemented and evaluated.

The classical model is an ideal (a normative model), rather than'a description of how most decision makers function (a descriptive model). Most scholars, in fact, consider the classical model an unrealistic ideal, if not naive. Decision makers virtually never have access to all the relevant information. Moreover, generating all the possible alternatives and their consequences is impossible. Unfortunately, the model assumes information-processing capacities, rationality, and knowledge that decision makers simply do not possess; consequently, it is not very useful to practicing administrators.

THE ADMINISTRATIVE MODEL: A SATISFICING STRATEGY

Given the severe limitations of the classical model, it should not be surprising that more realistic conceptual approaches to decision making in organizations have evolved. The complexity of most organizational problems and the limited capacity of the human mind make it virtually impossible to use an optimizing strategy on all but the simplest problems. Herbert Simon (1947) was

the first to introduce the administrative model of decision making to provide a more accurate description of the way administrators both do and should make organizational decisions.' The basic approach is satisficing—that is, finding a satisfactory solution rather than the best one. Before analyzing the satisficing strategy in detail, we examine the basic assumptions upon which the model rests.

Some Basic Assumptions

Assumption 1. *Administrative decision making is a dynamic process that solves some organizational problems and creates others.*

Specific decisions that foster the achievement of the organization's purposes frequently interfere with other conditions that are also important. Peter M. Blau and W. Richard Scott (1962: 250-51) explain that the process of decision making is dialectical: "problems appear, and while the process of solving them tends to give rise to new problems, learning has occurred which influences how the new challenges are met." Thus at best, decision making by thoughtful and skillful executives and their staffs should lead to more rational decisions, but it typically will not result in final decisions. The complex nature of organizations usually precludes that possibility.

Assumption 2. *Complete rationality in decision making is impossible; therefore, administrators seek to satisfice because they have neither the ability nor the cognitive capacity to maximize the decision-making process.*

Effective administration requires rational decision making. Decisions are rational when they are appropriate for accomplishing specific goals, and people typically try to make rational decisions (Tversky, 1969; Payne, Bettman, and Johnson, 1988). Administrative decisions, however, are often extremely complex, and rationality is limited for a number of reasons:

- All the alternatives cannot be considered because there are too many options that do not come to mind 1
- All the probable consequences for each alternative cannot be anticipated because future events are exceedingly difficult to' predict and evaluate.
- Finally, rationality is limited not only by the administrators' information-processing capacities, but also by their unconscious skills, habits, and reflexes as well as their values and conceptions of purpose that may deviate from the organization's vials (Simon, 1947,1991).

Because individuals are not capable of making completely rational decisions on complex matters, they are concerned with the selection and implementation of satisfactory alternatives rather than optimal ones. To use Simon's words, administrators "satisfice" rather than "optimize." Nonetheless, administrators continue to talk about finding the best solutions to problems. What is meant, of course, is the best of the satisfactory alternatives.

Administrators look for solutions that are "good enough." They recognize that their perception of the world is a drastically simplified model of the complex interacting forces that constitute the real world. They are content with this oversimplification because they believe that most real-world facts are not important to the particular problem(s) they face and that most significant chains of cause and effect are short and simple. Consequently, they ignore many aspects of reality and make choices using a simplified picture of reality that accounts for only a few of the factors that they consider most relevant and important (Simon, 1947). That is, they limit the scope of the decisions so that rationality can be approached.

Organizations provide members with an environment of goals, objectives, and purposes. This environment narrows and defines the roles, thereby limiting the number of alternatives. According to Simon (1947), rational behavior consists of a means-ends chain. Given certain ends, appropriate means are selected, but once those ends are achieved, they in turn become means for further ends, and so on. After organizational objectives are agreed on, the administrative structure serves as a basis for the means-ends chains. To illustrate, once the ends for organizational members are defined by the directives from a superior, the subordinate's responsibility is primarily to determine the "best" means for attaining those ends. That pattern, along with procedural regulations, narrows the alternatives and establishes **bounded rationality.**

An individual's decision is rational if it is consistent with the values, alternatives, and information that were analyzed in reaching it. An organization's decision is rational if it is consistent with its goals, objectives, and information. Therefore, the organization must be constructed so that a decision that is rational for the individual remains rational for the organization when reassessed from the organizational perspective (Simon, 195M).

Assumption 3. *Decision making is a general pattern of action found in the rational administration of all major tasks and functional areas in organizations.*

In deciding, those with the responsibility generally go through a general pattern of action that includes the following:

- Recognize and define the problem or issue.
- Analyze the difficulties in the situation.
- Establish criteria for a satisfactory solution.
- Develop a strategy for action.
- Initiate a plan of action.
- Evaluate the outcomes.

Although the process is conceptualized as a sequential pattern because each step serves as a logical basis for the next, the process is also cyclical. Thus, decision making may be entered into at any stage. Moreover, the steps are taken again and again in the process of administering organizations. The cyclical evolution of rational, deliberate, purposeful action—beginning with the development of a decision strategy and moving through implementation and appraisal of results—occurs in all types of organizations (Litchfield, 1956).

The structure of the process is the same, for example, in military, industrial, educational, or health services organizations. The universality of rational decision making calls attention to the fact that essentially it is the same regardless of specific context. Educational organizations are different from industrial organizations in a great many important ways. For example, the technologies and the products are quite different, but the decision-making process is not.

The specific tasks of school administration can be described in a number of ways. School administrators are responsible for curriculum and instruction, negotiations, physical facilities, finance and business, pupil personnel, evaluation and supervision, recruitment and selection of employees, and public relations. Regardless of the task, decision making is essential not only in each of these task areas but also in the broader functional areas of administration—policy, resources, and execution (Litchfield, 1956).

A policy is a general statement of objectives that guides organizational actions. The policy function is often termed "policy making" or "policy formulation," but it is substantially more.[2] Policies are not only formulated but also programmed, communicated, monitored, and evaluated. Policy making is a special instance of decision making in which issues revolve around policy matters.

The key resources of administration are people, money, authority, and materials. The rational process of deciding also is the vehicle for resource allocation. In determining the need for personnel, supplies, physical facilities, and monies, the administrator is confronted with difficulties and problems that require both deliberate and reflective choice and implementation—the use of the action cycle of the decision-making process.

Finally, the cycle is used in the execution of administration. In order to allocate and integrate the resources consistent with policy mandates and to accommodate conflicting values and tendencies, the executive attempts to administer the system through a continuous series of the cyclical actions that constitute the decision-making process (Litchfield, 1956).

Assumption 4. *Values are an integral part of decision making.*

Decisions are not value free. Values and moral choice are critical in systematic and deliberate decision making. When administrators pursue actions that they believe will attain a valued outcome, they are making judgments of value between competing goods or the lesser of evils.[3] But action requires more than good intention. For example, educational administrators often must weigh compassion for students against the judgments of teachers. Teachers may be threatened by students and react strongly to reestablish their authority. In the process, students may be punished for infractions that challenge the teacher's position. Most administrators value the welfare of both teachers and students, and yet administrators often must make decisions that favor one over the other. Judgments of value are inextricably tied to judgments of fact. The same kind of scanning and assessing used by decision makers to consider their options can abet moral choices (Willower, 1991;Willower and Licata, 1997).

Science and rationality, and ethics and practice should not be sharply separated (Dewey, 1938; Evers and Lakomski, 1991; Willower, 1993). One goes through the same process to make an ethical judgment or a rational decision. Whether making ethical judgments or rational decisions, the reflective examination of alternative courses of action and their consequences is necessary. Hence, both moral choice and rational decisions require the formulation of hypotheses concerning probable consequences and outcomes. The practice of administrative decision making is a continuing exercise in both rationality and valuation; it is both a rational and ethical activity. To separate the activities is foolhardy and impossible. Values and rationality are symbiotic not antithetical. The separation of ethics and the reflective methods of science promote ritualism and mechanistic administration. Decision making is about moral choice, and thoughtful moral choice depends on informed explanation and inference (Hoy and Tarter, 1995).

Decision-Making Process: An Action Cycle

The specific sequence of steps in the decision-making process has already been outlined. The action cycle of that process is illustrated in Figure 9.1. Many decision-making action cycles may be occurring simultaneously. One elaborate cycle, regarding fundamental goals and objectives (strategic planning), may be proceeding at the level of the board of education, whereas smaller and related sequential cycles, regarding curriculum and instruction, pupil personnel services, finance and business management, and facilities planning, may be progressing at the district level.

Let us turn to a more detailed analysis of each step in the action cycle.4

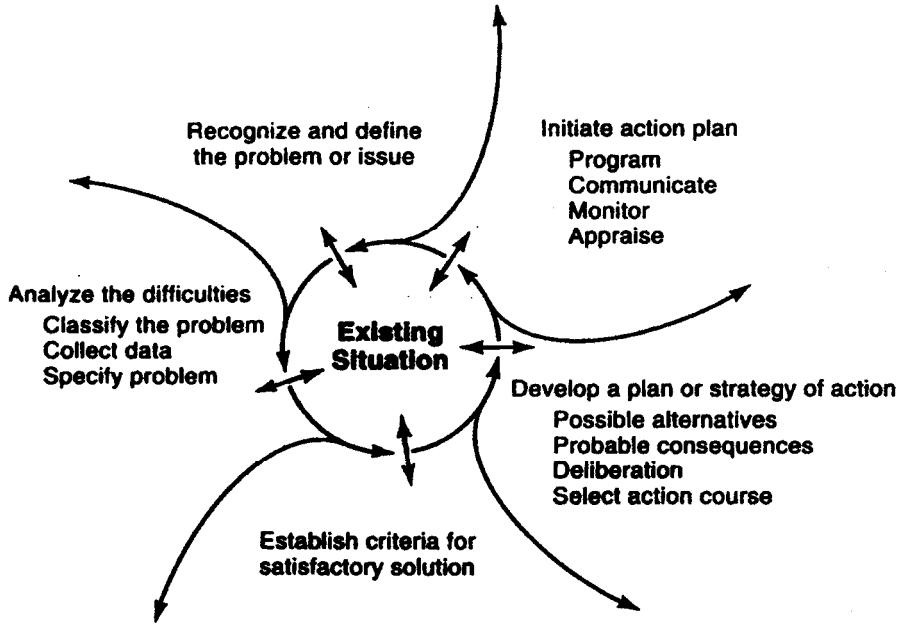


FIGURE 9.1 *Decision-Making Action Cycle*

Step 1. Recognize and Define the Problem or Issue

The recognition of a difficulty or disharmony in the system is the first step in the decision-making process. Effective administrators are sensitive to organizational actions and attitudes that do not measure up to the prescribed standards. The common retort, "We don't have problems; we have answers," is symptomatic of insensitive administrators who are headed for trouble. Although it may be possible for them to maintain equilibrium in the organization over the short run, the likelihood of organizational chaos over the long run seems great.

The recognition and definition of a problem are crucial to deciding and often do not receive adequate attention. The way a problem is conceptualized is important to subsequent analysis and solution. Not only are sensitivity and perceptual acuteness in the administrator necessary, but a rich conceptual background and a thorough understanding of formal and informal organizations are desirable in framing the problem. Too often administrators define problems quickly and narrowly and, in so doing, restrict their options. They treat only the symptoms of the problems, not the problem itself. For example, the response to a request from a teacher group for more autonomy in selecting curricular materials can be seen by a principal as an attempt to undermine administrative authority. The problem so conceived yields a set of alternatives that likely will be unduly narrow and restrictive. Such a teacher request, however, can open up a host of positive, creative possibilities for long-range curriculum development. This example, coincidentally, underscores the importance of security and confidence; the secure and confident administrator is unlikely to view such a teacher request as a threat to his or her authority.

During this first stage in the process, it is important to place the problem in perspective. If the problem is complex, its definition likewise will be complicated, perhaps multidimensional. The problem may need to be broken down into subproblems, with each subproblem cycled through the decision-making process. Furthermore, the problem may require several solutions. For instance, the problem of districting in a school system, where large numbers of parents want their children in school X rather than Y, may be settled in the short run by a policy statement indicating that a child will be assigned to a school solely on the basis of geographic location. The long-run solution, however, might well involve equalizing educational opportunities and improving the program of instruction in one or more schools. Two guides for defining the problem:

- First, define the immediate problem.
- Then, define the long-term problem.

In deciding, the executive does not necessarily merely react to existing problems. Effective administrators are constantly alert to issues that might become problems. In that way they can adopt a course of action that will prevent problems as well as promote organizational health and growth.

Step 2. Analyze the Difficulties in the Existing Situation

This stage of the decision-making process is directly related to the first stage; in fact, some writers prefer to combine definition and analysis. However,

analysis calls for the classification of the problem. Is the problem unique? Or is it a new manifestation of a typical difficulty for which a pattern of action has already been developed?

Chester I. Barnard (1938) distinguished three kinds of decisions based on where the need for them originates:

- Intermediary decision arise from authoritative communications from superiors that relate to the interpretation, application, or distribution of instruction.
- Appellate decisions grow out of cases referred by subordinates.
- Creative decisions originate in the initiative of the executive concerned.

In contrast, Peter E Drucker (1966) proposed two basic kinds of decisions—generic or unique. **Generic decisions** arise from established principles, policies, or rules. Indeed, recurring problems are routinely solved by formulaic rules and regulations. A great many of the intermediary or appellate decisions that confront school principals (indeed, all middle-level administrators) are generic. That is, the organization has established mechanisms and procedures for dealing with problems. This does not mean, however, that they are unimportant; it simply means that they belong to a general group of organizational problems that frequently occur and that the organization wants to be prepared to deal with. Such decisions are needed when a principal implements policy mandated by the board, monitors absenteeism among teachers, mediates student-teacher conflicts, and interprets disciplinary procedures. All these generic decisions can be intermediary or appellate decisions (originating from above or below the principal in the hierarchy). In all cases the principal should be able to handle the situation by applying the appropriate rule, principle, or policy to the concrete circumstances of the case.

Unique decisions, however, are probably creative decisions that require going beyond established procedures for a solution; in fact, they may revire a modification of the organizational structure. Here the decision maker deals with an exceptional problem that is not adequately answered by a general principle or rule. Creative decisions quite often change the basic thrust or direction of an organization. In order to seek a creative solution, decision makers explore all ideas that are relevant to the problem.

A unique decision might arise when principal and staff work to resolve a curricular issue where there are no established guidelines. The superintendent may specifically request an innovative solution. Completely unique events are rare; nevertheless, the distinction between problems that are routine and those that are unique is an important one in terms of deciding. Two common mistakes administrators need to guard against are:

- Treating a routine situation as if it were a series of unique events.
- Treating a new event as if it were just another old problem to which old procedures should be applied.

Once the problem has been classified as generic or unique, the administrator is in a position to address a number of other questions. How important is the problem? Can the problem be more fully specified? What information is

needed to specify the problem? The original definition of a problem is usually global and general. After classifying and determining the importance of the problem, the decision maker begins to define more precisely the problem and issues involved. This entails the need for information. The amount of information that should be collected depends on a number of factors, including the importance of the problem, time constraints, and existing procedures and structure for data collection. The more important the problem, the more information the decision maker gathers. Time, of course, is almost always a constraint. Finally, the existing procedures for data collection may facilitate or prohibit the search for relevant information.

In brief, decision makers need relevant facts. What is involved? Why is it involved? Where is it involved? When? To what extent? Answers to these questions provide information to map the parameters of the problem. Such information can be collected in formal, sophisticated ways, making use of operations research and computer facilities, as well as in informal ways, through personal contacts, by telephone, or in conversations.

Step 3. Establish Criteria for a Satisfactory Solution

After the problem has been analyzed and specified, the decision maker must decide what constitutes an acceptable solution. What are the minimum objectives that are to be achieved? What are the musts compared to the wants? It is not unusual for the perfect solution in terms of outcomes to be unfeasible. What is good enough? Answers to such questions help the decision maker establish his or her aspiration level. That is, what are the criteria for a satisfactory decision? At this point, sometimes the decision maker will rank possible outcomes along a continuum from minimally satisfying to maximally satisfying; a completely satisfactory outcome usually does not remain after compromise, adaptation, and concession. It is also useful to consider what is satisfactory in both the short and long term.

Criteria of adequacy need to be specified early so that the decision maker knows that a "right" decision is being made and not just one that will be accepted. In general, the criteria used to judge the decision should be consistent with the organization's mission. What we have referred to as criteria of adequacy, scientists often refer to as boundary conditions—the limits that the decision maker must meet if the decision is to be judged satisfactory.

Step 4. Develop a Plan or Strategy of Action

This is the central step in the process. After recognizing the problem, collecting data, and specifying the problem and its boundary conditions, decision makers develop a systematic and reflective plan of action. The process involves at least the following steps:

- Specify alternatives.
- Predict the consequences of each alternative.
- Deliberate.

  Select a plan of action.

Before we proceed to analyze each of these steps, several limitations need to be reiterated. Administrators base their plans of action on simplified pictures of reality; they choose the factors that they regard as most relevant and crucial; and thus they are able to come to some general conclusions and take actions without becoming paralyzed by the facts that "could be" indirectly related to the immediate problems. In describing the art of administrative decision making, Barnard (1938) warns:

- Do not decide questions that are not pertinent.
- Do not decide prematurely.
- Do not make decisions that cannot be effective.
- Do not make decisions that others should make.

The search for alternatives to solve a particular organizational problem is called **problemistic** search. It is distinguished from random curiosity and from the search for understanding per se (Cyert and March, 1963; Bass, 1985b). Problemistic search is straightforward, usually reflecting simplified notions of causality, and based on two simple rules:

- Search in the area of the problem symptom(s).
- Search in the area of the current alternative(s).

When these two rules do not produce enough reasonable alternatives, expand the search. Problemistic search probably is the dominant style of administrators; hence, most decision making is reactive.

But deciding need not be reactive. James D. Thompson (1967) has suggested that it is possible to develop behavior-monitoring procedures to search the environment for opportunities that are not activated by a problem. He calls this process **opportunistic** surveillance; it is the organizational counterpart of curiosity in the individual. Obviously, a decision-making structure that encourages opportunistic surveillance is more desirable than one that allows for only problemistic search.

Specifying Alternatives A preliminary step in formulating an intention to act is to list all possible alternatives. In actuality, only some of the options are specified because, as we have noted earlier, people do not have the information-processing capacity to think of all alternatives. Nonetheless, advancing a greater number of choices increases the likelihood of finding satisfactory alternatives that meet the already-specified conditions.

Creative decision makers are able to develop unique, viable alternatives, an often time-consuming task. Unfortunately, too many administrators do not take the time to develop a comprehensive set of possible options; they see the solution as a simple dichotomy—it is either this or that. Don't be overly impressed with speed in deciding; it is often a symptom of sloppy thinking. The impact of a solution is much more important than the technique. Educational organizations need sound decisions, not clever techniques.

Time is necessary to develop a comprehensive set of alternatives, yet time is limited. Consider as your first alternative doing nothing. Once in a great while, such an alternative turns out to solve the problem; things work

themselves out. Unfortunately, most problems do not just work themselves out, but the decision not to decide should always be reflectively considered. Even if "doing nothing" does not solve the problem, sometimes it buys time for further thinking and information gathering, that is, it becomes a short-term strategy. In fact, it is useful to consider other temporary alternatives that do not really solve the problem but that provide more time for deliberation. Temporary alternatives, once refined and more completely thought through, are often the basis for more elaborate proposals. The key in developing preliminary and temporary alternatives is that, if successful, they buy time without creating hostility. There is always the danger that options that buy time will be seen as stalling; hence, buying time should be used sparingly and adroitly.

Routine decisions often can be handled quickly and effectively. Unique decisions demand more thoughtful and creative decision making. Creative thinking is of particular value in generating options. To think creatively, individuals must be able to reduce external inhibitions on the thinking process, to make relativistic and nondogmatic distinctions, to be willing not only to consider but also to express irrational impulses, and to be secure and amenable to brainstorming. Of course, the climate and culture (see Chapter 5) of the organization can either inhibit or facilitate creative thinking.

In brief, the development of effective solutions typically requires:

- A willingness to make fewer black-and-white distinctions.
- The use of divergent and creative thinking patterns.
- Time to develop as many reasonable alternatives as possible.

Predicting Consequences For each alternative that is developed, probable consequences should be proposed. Although for analytic purposes we have treated specifying alternatives and predicting consequences as separate operations, they usually occur simultaneously. The formulation of alternatives and probable consequences is a good place to use groups—pooling brainpower and experience to make predictions as accurately as possible. By and large, pre-d icting consequences to proposed alternatives is hazardous. On some issues—for example, those involving financial costs—accurate predictions of consequences can be made; however, when trying to anticipate the reactions of individuals or groups, the results typically are much more problematic.

Predicting consequences underscores the need for a good management-information system, and those school structures that have built-in capacities to collect, codify, store, and retrieve information have a distinct advantage in the decision-making process. In addition, consulting with a number of individuals who are in a position to know improves one's predictive power. For each decision alternative, the consequences can be predicted only in terms of probable rather than certain outcomes.

Deliberating on And Selecting the Course *of Action* The final phase of developing a strategy for action involves a reflective analysis of the alternatives and consequences. Sometimes it is helpful to list all the alternatives with their accompanying probable consequences in a probability-event

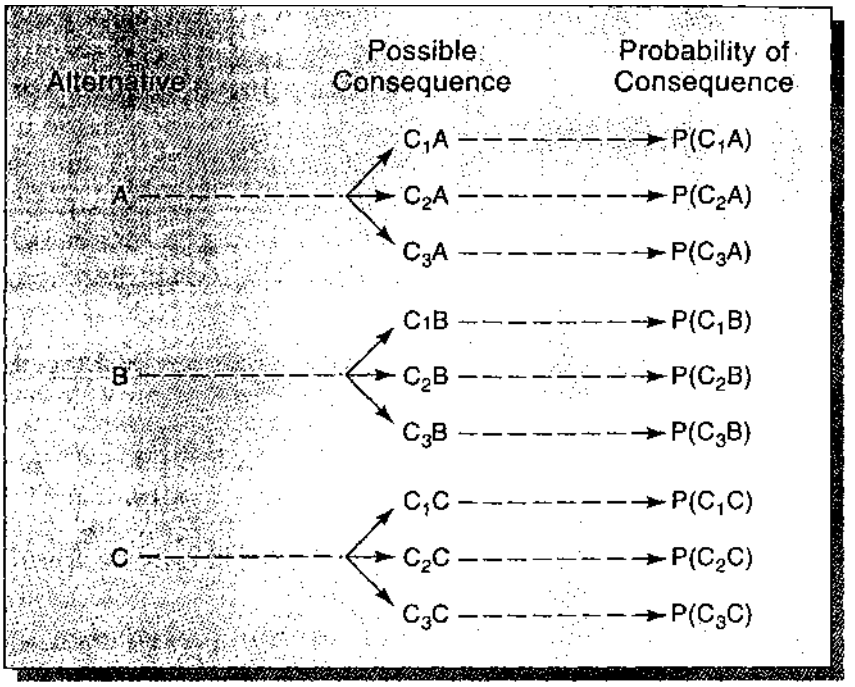


FIGURE 9.2 *Example of Probability Event Chain*

chain (see Figure 9.2). The figure is read as follows: Alternative A has three possible consequences (C_1A, C_2A, C_3A), and the probability of each of these consequences occurring is designated $P(C_1A)$, $P(C_2A)$, $P(C_3A)$. Although this procedure may not be completed for each problem-solving issue, every option typically has a number of consequences, each with a certain probability that should be considered.

In the deliberation, prior to selecting the appropriate alternatives, decision makers carefully weigh the pzpbable consequences of each alternative in light of the criteria for a satisfactory solution. After such reflection, they choose the "best" alternative or select a series of alternatives that are linked in some sequential order, which provides a strategy and plan of action; the more problematic the issue, the more likely a complex course of action.

To illustrate the planning of strategy, let us simplify the procedure. It may be possible to set up a strategy several moves in advance, just as a good chess player does. Alternative A may result in a positive and acceptable solution; however, if it does not, the decision maker goes to alternative B and, if need be, to alternative C, and so on, provided the probable consequences are still satisfactory. Of course, unanticipated consequences may require a rethinking of viable alternatives. Occasionally decision makers cannot find an acceptable alternative. A reduction in the aspiration level may be necessary; that is, the criteria for a satisfactory solution are reconsidered (return to step 3). A new set of objectives, new alternatives, new data, and a new and more feasible strategy may have to be formulated.

In the process of searching for satisfactory alternatives, decision makers seek to keep the activity manageable by using simplified decision rules called

heuristics—simple rules of thumb that guide the decision making and enable us to make decisions in a rapid and efficient manner.[6] For example, rules about when to take a "hit" in blackjack ("hit on 16, stick on 17") or how to play chess (dominate the center of the board) are heuristics. Some heuristics are useful, but others can be misleading (Gigerenzer, Todd, and ABC Research Group, 1999).

The recognition heuristic is the tendency to infer a higher value (e.g., stronger, faster, higher) to that which is familiar. The recognition heuristic for a two-object problem is simply stated:

> If one of two objects is recognized and the other is not, then infer that the recognized object has a higher value (Gigerenzer, Todd, and ABC Research Group, 1999).

For example, "Which city has a larger population: Munich or Dortmund?" The person who has not heard of Dortmund would infer Munich to be larger and would be correct. The recognition heuristic should only be applied when one of the objects is not recognized, but in such cases research demonstrates that the recognition rule of thumb is quite powerful (Gigerenzer, Todd, and ABC Research Group, 1999).

The availability heuristic is the tendency for decision makers to base their judgments on information already available to them (Abelson and Levi, 1985). Although such a strategy is quick and efficient, it is limited by what is known and what first comes to mind. Moreover, this heuristic can cause people to make errors (Tversky and Kahneman, 1974) and to overestimate the frequencies of events. In short, what is available in the decision maker's memory is often inadequate and sometimes misleading.

The representative heuristic is the tendency to view others as the typical stereotype that they represent; for example, an accountant is seen as bright, mild-mannered, and precise (Tversky and Kahneman, 1974: Greenberg and Baron, 1997). The representative heuristic applies to events and objects as well as people—the more Closely an item represents the most typical occurrence, the more likely it will be judged to be that prototype. Even though such quick judgments are incomplete and prone to error, they are quite common in decision making (Tversky and Kahneman, 1974, 1981).

The **anchoring-and-adjustment** heuristic is a mental rule of thumb in which existing information is accepted as a reference point for decision making but is adjusted as new information becomes available (Baron, 1998). For example, a principal may evaluate teacher performance during an observation as satisfactory, but when confronted with new information from the teacher may make an adjustment on the rating. Such a process is more likely if the principal does not have a good basis for judging the quality.

The influence of heuristics on decision making is strong and often occurs unconsciously; in fact, recent evidence suggests that arbitrary numbers can anchor people's judgments even when the numbers are irrelevant to the decision (Wilson, Houston, Etling, and Brekke, 1996). The bad news is that the potential sources of errors of some heuristics are strong; but the good news is that such errors can be reduced by experience and expertise (Frederick and Libby, 1986; Northcraft and Neale, 1987; Smith and Kida, 1991).

Obviously, a large number of factors mediate the choice of a preferred alternative or alternatives. The values of the administrator, the cultural context in which the decision is made and implemented, the perceptions of those involved, the importance of the situation, the pressure on the decision maker, heuristics, and the importance of the goal—all of these and other factors intervene in the selection of a final course of action. Nonetheless, deliberate, rational, and reflective decisions generally result from following a systematic sequence of steps.

Step 5. Initiate the Plan *of Action*

Once the decision has been made and a plan of action formulated, the decision needs to be implemented—the final element in the decision-making cycle. The initiation of the plan of action requires at least four steps: programming, communicating, monitoring, and appraising.

Programming Decisions must be translated and interpreted into specific programs—that is, the mechanics and specific details for implementing the plan must be specified. For example, the plan to change the system of grading elementary school students contains a specific and detailed set of operations that require answers to a number of questions. Who has to have information about the plan? What actions need to be taken and by whom? What preparation is needed so that those who have to take action can do so? The action that is to be programmed must be appropriate to the abilities of the people involved. In brief, the program must be realistic and capable of implementation.

What we call "programming" others have called "program planning"—the activity designed to implement decisions. Program planning can be accomplished through a wide range of specific methods and techniques. Which ones are used depends on the sophistication and capabilities of the school organization. Programming may include budgeting, setting behavioral objectives, using network-based management techniques, and specifying other ways of translating a decision into specific programs for allocating authority and human resources.

Communicating Once the plan has been programmed, it is necessary that each involved individual become aware of his or her responsibilities. Channels of communication among the individuals as well as opportunities for communicating both horizontally and vertically must be given careful attention. For a program to be successful, individuals need to know clearly not only what their own roles are, but also the roles of others as they relate to the total plan. Otherwise, efforts may be duplicated, counterproductive, or ineffective. The communication system developed to implement the plan in large part can and should be a crucial mechanism to initiate action and to enhance coordination of the program. Communicating is discussed in detail in Chapter 10.

Monitoring The process of overseeing the implementation of the plan of action is monitoring. Evaluation and reporting must be built into the action

cycle to provide continuous assessment of actual outcomes as compared to expected ones. Monitoring is a control process using systematic feedback. Standards of performance, once they are set, need to be enforced. Enforcement does not necessarily mean coercive control. There are many techniques of control such as rewards and incentives, persuasion, and identification with organizational goals. Different modes of control and enforcement are more or less effective depending on the situation and the individuals involved. Continuous feedback is necessary to evaluate the progress of implementing the plan of action.

Appraising Once the decision has been programmed, communicated, and monitored, the outcomes still need to be appraised to determine how successful the decision has been. Has the decision been a satisfactory one? What new issues or problems have arisen? Decisions commonly are made in situations where probabilities, not certainties, are weighed. Even the most carefully conceived and executed decisions can fail or become obsolete. Organizational decisions are made in a context of change—facts, values, and circumstances change. Therefore, a fully articulated decision—one that has been reflectively made, programmed, communicated, and monitored—in itself brings about sufficient change to necessitate its own further reevaluation and appraisal (Litchfield, 1956). Hence, the appraisal stage is both an end and a new beginning in the action cycle of decision making. Clearly, there are no ultimate solutions—only satisfactory decisions and solutions for the moment.

THE INCREMENTAL MODEL: A STRATEGY OF SUCCESSIVE LIMITED COMPARISONS

Although the satisficing strategy that we have just described in detail is well suited to dealing with many problems in educational administration, occasionally some situations require an incremental strategy. When relevant alternatives are difficult to discern or the consequences of each alternative are so complicated as to elude prediction, even satisficing does not work well (Grandori, 1984). For example, to what new activities should a school administrator allocate more resources? The answer to this question is probably more adequately addressed by considering only alternatives that differ marginally from existing conditions. The underlying assumption of the strategy is that small incremental changes will not produce major unanticipated negative consequences for the organization.

Charles Lindblom (1959, 1965, 1968, 1980; Braybrook and Lindblom 1963; Lindblom and Cohen, 1979) first introduced and formalized the incremental strategy. He characterizes this method of deciding as the science of **muddling through** and argues that it may be the only feasible approach to systematic decision making when the issues are complex, uncertain, and riddled with conflict. The process is best described as a method of successive limited comparisons. Deciding does not require objectives, exhaustive analysis of alternatives and consequences, or a priori determination of either opti-

mum or satisfactory outcomes. Instead only a small and limited set of alternatives, similar to the existing situation, is considered by successively comparing their consequences until decision makers come to some agreement on a course of action.

This incremental approach has a number of important features. First, the setting of objectives and the generation of alternatives are not separate activities. Goals and objectives are not established prior to decision analysis. Rather, a feasible course of action emerges as alternatives and consequences of action are explored. The more complex the problems, the more likely objectives will change as the decision evolves. Thus, the marginal differences in value among alternative courses of action rather than any prior objectives serve as the basis for deciding.

The **incremental model** also greatly reduces the number of alternatives. The strategy considers only alternatives that are very similar to the existing situation, analyzes only differences between the current state and proposed outcomes, and ignores all outcomes that are outside the decision maker's narrow range of interest. With this approach, the complexity of the decision making is dramatically reduced and made manageable. Lindblom (1959) argues that this simplification of analysis, achieved by concentrating on alternatives that differ only slightly, is not capricious; simplifying by limiting the focus to small variations from existing situations merely makes the most of available knowledge. Administrators who limit themselves to a reasonable set of alternatives on the basis of their experiences can make predictions of consequences with accuracy and confidence. Moreover, by emphasizing only differences among alternatives, time and energy are conserved. The narrow focus on outcomes avoids possible paralysis caused by attempts to predict and analyze all possible outcomes of a specific course of action.

Finally, successive comparison is often an alternative to theory. In both the classical and the administrative models, theory is viewed as a useful way to bring relevant knowledge to bear on specific problems. As problems become increasingly complex, however, the inadequacies of our theories to guide decisions become more prevalent. The strategy of successive limited comparisons suggests that, in such complex situations, decision makers make more progress if they successively compare concrete practical alternatives rather than emphasize more abstract, theoretical analyses.

In brief, the incremental approach has the following distinctive features:

- Means-end analysis is inappropriate because setting objectives and generating alternatives occur simultaneously.
- Good solutions are those upon which decision makers agree regardless of objectives.
- Alternatives and outcomes are drastically reduced by considering only options similar to the current state of affairs.
- Analysis is restricted to differences between the existing situation and proposed alternatives.
- **The** incremental method eschews theory in favor of successive comparisons of concrete, practical alternatives.

THE MIXED-SCANNING MODEL AN ADAPTIVE STRATEGY

Although widely used, muddling through has its limitations: it is conservative and aimless (Hoy and Tarter, 1995). Yet most administrators make decisions with only partial information and under the press of time. Amitai Etzioni (1967, 1986, 1989) offers a model of decision making that is a pragmatic approach to complexity and uncertainty. His adaptive model, or **mixed-scanning model,** is a synthesis of the administrative and incremental models that we have just described (Thomas, 1984; Wiseman, 1979a, 1979b).

Mixed scanning involves two questions:

- What is the organization's mission and policy?
- What decisions will move the organization toward its mission and policy?

Mixed scanning seeks to use partial information to make satisfactory decisions without either getting bogged down examining all the information or proceeding blindly with little or no information.[?] This adaptive strategy is "a mixture of shallow and deep examination of data—generalized consideration of a broad range of facts and choices followed by detailed examination of a focused subset of facts and choices" (Etzioni, 1989: 124). Higher-order, fundamental decision making (mission or policy decisions) is combined with lower-order, incremental decisions that work out the higher-order ones (Etzioni, 1986; Goldberg, 1975; Haynes, 1974). Mixed scanning unites the rationalism and comprehensiveness of the administrative model with the flexibility and utility of the incremental model.

As we have suggested, there are times when alternatives are difficult to discern and when consequences are hard to predict. In these situations, administrators often muddle through. Their incremental decisions are tentative or remedial—small steps taken in directions not far afield from the existing state. Such decision making has its downside, however; it is patently conservative and often without direction. That is, unless decision makers evaluate these incremental decisions in terms of some broad, fundamental policy, drift is likely. Broad guidelines, however, are not incrementally formulated; in fact, they have all the trappings of grand, a priori, decisions, which incrementalism seeks to avoid (Etzioni, 1989).

The mixed-scanning model has its roots in medicine. It is the way effective physicians make decisions. Unlike incrementalists, doctors know what they are trying to achieve and on which parts of the organism to focus attention. Moreover, unlike decision makers who seek to optimize, they do not engage all their resources on the basis of an initial diagnosis, or wait for every conceivable bit of personal history and scientific data before beginning treatment. Doctors survey the symptoms of a patient, analyze the difficulty, initiate a tentative treatment, and, if it fails, they try something else (Etzioni, 1989).

The principles for mixed scanning are straightforward; in fact, Etzioni (1989) advances seven basic rules for a mixed-scanning strategy, which Wayne Hoy and John Tarter (1995) have summarized as follows:

1. *Use focused trial and error.* First, search for reasonable alternatives; then select, implement, and test them; and finally, adjust and modify as the outcomes become clear. Focused trial and error assumes that, despite the fact that important information is missing, the administrator must act. Thus decisions are made with partial information and then carefully monitored and modified in light of new data.
2. *Be tentative; proceed with caution.* Be ready to modify a course of action as necessary. It is important that administrators view each decision as experimental, expecting to revise it.
3. *If uncertain, procrastinate.* Waiting is not always bad. When the situation is ambiguous, delay as long as possible so that more information can be collected and analyzed before taking action. Complexity and uncertainty frequently justify delay.
4. *Stagger your decisions.* Commit to a decision in stages, evaluating the outcomes of each phase before proceeding to the next phase.
5. *If uncertain, fractionalize decisions.* Staggered decisions can be tested in parts. Do not invest all your resources to implement a decision, but instead use partial resources until the consequences are satisfactory.
6. *Hedge your bets.* Implement several competing alternatives, provided that each has satisfactory outcomes. Then make adjustments on the basis of the results.
7. *Be prepared to reverse your decision.* Try to keep decisions tentative and experimental. Reversible decisions avoid overcommitment to a course of action when only partial information is available.

Educational administrators can skillfully employ all of these adaptive techniques; all illustrate flexibility, caution, and a capacity to proceed with partial knowledge.

In sum, the mixed-scanning model has the following distinctive features:

- Broad, organizational policy gives direction to tentative incremental decisions.
- Good decisions have satisfactory outcomes that are consistent with organizational policy and mission.
- The search for alternatives is limited to those close to the problem.
- Analysis is based on the assumption that important information is missing but action is imperative.
- Theory, experience, and successive comparisons are used together.

The major differences in the four models of decision making—classical, administrative, incremental, and mixed scanning—are compared in Table 9.1.

The Right Strategy for the Situation

We have proposed four decision-making models thus far. Which is the best way to decide? There is no best way to decide just as there is no best way to organize, to teach, to do research, or to do myriad other tasks. As in most complex tasks, the best approach is the one that best matches the circumstances—a contingency approach.

TABLE 9.1

Comparison of the Classical, Administrative, Incremental, and Mixed-Scanning Models of Decision Making

Classical	Administrative	Incremental	Mixed Scanning
Objectives are set prior to generating alternatives	Objectives are usually set prior to generating alternatives.	Setting objectives and generating alternatives are intertwined.	Broad policy guidelines are set prior to generating alternatives.
Decision making is a means-ends analysis: first, ends are determined, and then the means to obtain them are sought.	Decision making is typically means-ends analysis; however, occasionally ends change as a result of analysis.	Because means and ends are not separable, means-ends analysis is inappropriate.	Decision making is focused on broad ends and tentative means.
The test of a good decision is that it is shown to be the best means to achieve the end.	The test of a good decision is that it can be shown to result in a satisfactory means to achieve the end; it falls within the established boundary conditions.	The test of a good decision is that decision makers can agree an alternative is in the "right" direction when the existing course proves to be wrong.	The test of a good decision is that it can be shown to result in a satisfactory decision that is consistent with the organization's policy.
(Optimizing)	(Satisficing)	(Successive comparing)	(Adaptive satisficing)
Engage in comprehensive analysis; all alternatives and all consequences are considered.	Engage in "problemistic search" until a set of reasonable alternatives is identified.	Drastically limit the search and analysis: focus on alternatives similar to the existing state. Many alternatives and important outcomes are ignored.	Limit the search and analysis to alternatives close to the problem, but evaluate tentative alternatives in terms of broad policy. More comprehensive than incrementalism.
Heavy reliance on theory.	Reliance on both theory and experience.	Successive comparisons reduce or eliminate the need for theory.	Theory, experience, and successive comparisons used together.

The decision strategies can be ordered according to their capacity to deal with complexity and conditions of increasing uncertainty and conflict (Grandori, 1984). When decisions are simple, information complete and certain, and a collective preference (no conflict) exists, then an optimizing strategy is most appropriate. As we have already noted, however, organizational problems are almost never simple, certain, and without conflict in preferences. Even in the case of the traditional application of the classical model—the economic theory of competitive decision—questions abound concerning its suitability.

When uncertainty and conflict prevail, as is typically the case in administrative decision making, a satisficing strategy becomes appropriate. The administrative model is flexible and heuristic. Decisions are based on comparisons among consequences of alternatives and the decision maker's aspiration level. Only a partial exploration of the alternatives is performed until a satisfactory course of action is discovered. If satisfactory solutions are not found, then the aspiration level is lowered.

When alternatives are difficult if not impossible to discern or consequences are so complicated as to elude prediction, even a satisficing strategy has its limits. In such situations an incremental strategy may be appropriate because it deals with both uncertainty and conflict of interest by assuming that small changes will not produce large negative consequences for the organization (Grandori, 1984). Thus, when the organization is in turmoil and without direction, the incremental approach may be the appropriate short-run strategy.

Some students of organization (Starkie, 1984; Etzioni, 1989), however, argue that even when the decisions are complex and outcomes are difficult to predict, incrementalism is too conservative and self-defeating. Small, incremental decisions made without guidelines lead to drift—to action without direction. Instead, mixed scanning or adaptive decision making is recommended to deal with exceedingly complex decisions. Mixed scanning combines the best of both the satisficing and the incremental models; a strategy of satisficing is combined with incremental decisions guided by broad policy. Full scanning is replaced by partial scanning of a set of satisfactory options, and tentative and reversible decisions are emphasized in an incremental process that calls for caution as well as a clear sense of destination.

We have suggested that the appropriate decision model depends on the amount of information and the complexity of the situation. A summary guide for matching the appropriate decision models with situations is found in Table 9.2.

THE GARBAGE CAN MODEL: NONRATIONAL DECISION MAKING

Individuals and institutions sometimes need ways of doing things for which there are no good reasons. Not always, not even usually, but occasionally people need to act before they think (March, 1982, 1994). The so-called **garbage can model** describes this tendency, which is most likely to occur in organizations that experience extremely high uncertainty. Michael Cohen,

TABLE 9.2

Matching the Right Decision Strategy with the Appropriate Circumstance

Strategy	Appropriate Circumstance
Optimizing	Narrow, simple problems with complete information and certain outcomes
Satisficing	Complex problems with partial information, uncertainty, but with definable satisfactory outcomes and adequate time to deliberate
Muddling through	Incomplete information, complex problems, outcomes uncertain, no guiding policy, and general organizational chaos
Adaptive satisficing	Incomplete information, complex problems, outcomes uncertain, but a guiding policy and mission

James March, and Johan Olsen (1972), the originators of the model, call such organizations organized anarchies. These organizations are characterized by *problematic preferences, unclear technology, and fluid participation.* That is, ambiguity accompanies each step of the decision process; cause-and-effect relationships within the organization are virtually impossible to determine; and there is a rapid turnover in participants and time is limited for any one problem or decision. Although no organization fits this extremely organic and loosely coupled system all the time, the model is often useful for *understanding* the pattern of decisions for situations of organized anarchy.

The basic feature of the garbage can model is that the decision process does not begin with a problem and end with a solution; rather, decisions are a product of independent streams of events in the organization (Cohen, March, and Olsen, 1972; Cohen and March, 1974; March, 1982; Estler, 1988; Daft, 1989; Tarter and Hoy, 1998; Slater and Boyd, 1999). The following four streams are particularly relevant for organizational decision making in organized anarchies:

- *Problems* are points of dissatisfaction that need attention; however, problems are distinct from solutions and choices. A problem may or may not lead to a solution and problems may or may not be solved when a solution is adopted.
- *Solutions* are ideas proposed for adoption, but they can exist independently of problems. In fact, the attractiveness of an idea can produce a search for a problem to justify the idea. Cohen and colleagues (1972: 3) argue, "Despite the dictum that you cannot find the answer until you have formulated the question well, you often do not know what the question is in organizational problem solving until you know the answer."

- *Participants* are organizational members who come and go. Because personnel are fluid, problems and solutions can change quickly.
- *Choice opportunities* are occasions when organizations are expected to make decisions—for example, contracts must be signed, people hired and fired, money spent, and resources allocated.

Within these four streams of events, the overall pattern of organizational decision making takes on a quality of randomness. Organizational decision makers do not perceive that something is occurring about which a decision is necessary until the problem matches one with which they already have had some experience (Hall, 1987). When problems and solutions happen to match, a decision may occur. An administrator who has a good idea may suddenly find a problem to solve. When a problem, solution, and participant just happen to connect at one point, a decision may be made and the problem may he solved, but it will not be solved if the solution does not fit the problem. In the garbage can model, organizations are viewed as a set of choices looking for problems, issues and feelings looking for decision arenas in which they might be aired, solutions looking for questions to which they might be answers, and decision makers looking for work (Cohen, March, and Olsen, 1972).

The garbage can model helps explain why solutions may be proposed to problems that don't exist; why choices are made without solving problems; why problems persist without being solved; and why few problems are solved. Events may be so poorly defined and complex that problems, solutions, participants, and choice opportunities act as independent events. When they mesh, some problems are solved, but in this chaotic decision process many problems are not solved—they simply persist (Daft, 1989). Undoubtedly the garbage can metaphor contains elements of truth, and it appears to be an apt description of the way decisions are reached in some situations but not in others. The model has received support in a number of studies of different kinds of organizations (Sproull, Weiner, and Wolf, 1978; Bromily, 1985; Levitt and Nass, 1989), but other recent research has questioned its utility as a *general* model of decision making, even in organizations of complexity, uncertainty, discontinuity, and power politics (Janis and Mann, 1977; Padgett, 1980; Hickson et al., 1986; Pinfield, 1986; Heller, Drenth, Koopman, and Rus, 1988).

In brief, the garbage can model has the following distinctive features:

- Organizational objectives emerge spontaneously; they are not set beforehand.
- Means and ends exist independently; chance or happenstance connects them.
- A good decision occurs when a problem matches a solution.
- The decision relies more on chance than rationality.
- Administrators scan existing solutions, problems, participants, and opportunities looking for matches.

The garbage can metaphor is a description of how decisions sometimes occur; it is not a suggestion for action.

jANIS-MANN CONFLICT THEORY: STRESS AND IRRATIONALITY IN DECISION MAKING

Regardless of which decision-making strategy is employed, the pressures of the situation and the decision-making process itself often produce stress. Irving Janis and Leon Mann (1977) have developed an insightful model of conflict that answers the following two questions: Under what conditions does stress have unfavorable effects on the quality of decision making? Under what conditions will individuals use sound decision-making procedures to avoid choices that they would quickly regret?8

People handle psychological stress in different ways as they make vital decisions. The main sources of such stress are the fear of suffering from the known losses that will occur once an alternative is selected, worry about unknown consequences when a critical decision is at stake, concern about making a public fool of oneself, and losing self-esteem if the decision is disastrous (Janis, 1985). Critical decisions usually involve conflicting values; therefore, decision makers face the unsettling dilemma that any choice they make will require sacrificing ideals or other valued objectives. Thus, the decision makers' anxiety, shame, and guilt rise, which increases the level of stress (Janis, 1985).

There is no question that errors in decision making are a result of many causes, including poor analysis, ignorance, bias, impulsiveness, time constraints, and organizational policies. But another major reason for many poorly conceived and implemented decisions is related to the motivational consequences of conflict—in particular, attempts to overcome stress produced by extremely difficult choices of vital decisions. As a result, people employ a variety of defensive mechanisms as they try to cope with the stress of the decision-making situation, most of which impede the efficiency of the process.

Janis (1985) identified five basic patterns of coping with psychological stress:

- **Unconflicted adherence:** The decision maker ignores information about risks and continues what has begun.
- **Unconflicted** change: The decision maker uncritically accepts whatever course of action is most salient or popular, without concern for costs or risks.
- **Defensive avoidance:** The decision maker evades the conflict by procrastinating, shifting the responsibility elsewhere, constructing wishful rationalizations, minimizing expected unfavorable consequences, and remaining selectively inattentive to corrective **feedback.**

- **Hypervigilance:** The decision maker panics and searches frantically for a solution, rapidly vacillating back and forth between alternatives, and then impulsively seizes upon a hastily contrived solution that promises immediate relief. The full range of alternatives and consequences is neglected because of emotional excitement, repetitive thinking, and cognitive schema that produce simplistic ideas and a reduction in immediate memory span.

- Vigilance: The decision maker searches carefully for relevant information, assimilates the information in an unbiased manner, and then evaluates the alternatives reflectively before making a choice.

The first four patterns are typically dysfunctional and lead to defective decisions. Although vigilance is no panacea, it is most likely to lead to effective decisions.

Even when decision makers are vigilant, however, they sometimes make mistakes by taking cognitive shortcuts to deal with the multiplicity of judgments that are essential. All kinds of people, including scientists and statisticians, make cognitive errors such as overestimating the likelihood that events can be easily imagined, giving too much weight to information about representativeness, relying too much on small samples, and failing to discount biased information (Tversky and Kahneman, 1973; Nisbet and Ross, 1980; Janis, 1985). Moreover, these kinds of errors probably increase when decision makers are under psychological stress.

The coping strategies of unconflicted adherence or unconflicted change promote sloppy and uncritical thinking because of a lack of motivation to engage in careful decision analysis. Defensive avoidance is used to elude the work required for vigilant decision making. If the decision maker cannot pass the buck or postpone the decision, the defensively avoidant person usually makes a quick choice to "get it over with" and then engages in wishful thinking and rationalization—playing up the positive reasons and playing down the negative ones. Hypervigilance produces a paniclike state in which the decision maker temporarily is overwhelmed by information as a result of being overly attentive to both relevant and trivial data. The informational overload and sense of imminent catastrophe contribute to the hypervigilant decision maker's tendency to use such simple-minded decision rules as "do whatever the first expert advises" (Janis, 1985).

The vigilant decision maker is most effective because he or she avoids many of the traps of the other four patterns and also because vigilance requires (Janis and Mann, 1977):

- A careful survey of a wide range of alternatives.
- An analysis of the full range of objectives to be fulfilled and the values implicated by the choice.
- An analysis of the risks and drawbacks of the choice.
- Intensive search for new information relevant to further evaluation of alternatives.
- Conscientious evaluation of new information or expert judgment, even when such information does not support the initial preferred course of action.
- Reexamination of both positive and negative consequences of alternatives, including those originally regarded as unacceptable.
- Detailed plans for implementing the selected course of action with special attention to contingency plans that might be required if various anticipated risks were to develop.

Notice the similarity of these seven criteria for vigilant information processing and the satisficing strategy that we have already discussed.

What are the conditions that make for vigilance? When confronted with a decision, reflective decision makers either consciously or unconsciously consider four issues (Janis and Mann, 1977).

Issue 1: Once the process begins, the decision maker's first question to himself or herself is: Are the risks serious if I don't change? If it is determined that the risks of not changing anything are not serious, then the result is a state of unconflicted adherence. The decision maker simply adheres to the current situation and avoids stress and conflict.

Issue 2: If the answer to the first question is affirmative, however, then the level of stress increases slightly, and the decision maker is likely to ask a second question: Are the risks serious if I do change? Here the emphasis is on losses associated with changing. If the anticipated losses of changing are minimal, then the risks are not serious and the decision maker is predicted to accept uncritically the first reasonable alternative—that is, to opt for a state of unconflicted change. Again stress is limited.

Issue 3: If the answer to the second question is yes, then stress builds because there are serious risks in both changing and not changing. The anxiety typically produces the next question: Is it realistic to hope to find a better solution? If the decision maker believes there is no realistic hope of finding a better solution, then the result is a state of defensive avoidance. In order to escape from the conflict and reduce the stress, the individual avoids making the decision by either passing the buck or rationalizing the current situation.

Issue 4: If, however, there is some perceived hope for a better solution, then the decision maker inquires: Is there sufficient time to search and deliberate? If the decision maker perceives insufficient time, then a state of hypervigilance may occur. Panic sets in and the individual seizes upon a hastily contrived solution that promises immediate relief. If time is ample, then the decision maker is much more likely to engage in vigilant information processing, a process that enhances the effectiveness of the decision making through careful search, appraisal, and contingency planning.

Clearly, administrators should avoid unconflicted adherence, unconflicted change, defensive avoidance, and hypervigilance; however, the forces of labor, time, and stress are operating against vigilance. Nevertheless, knowing the dangers of defective decision making and when they are most likely to occur should help avoid them.

PARTICIPATION IN DECISION MAKING

In 1948 Lester Coch and John R. P. French conducted a classic study on the effects of participation in decision making, using a series of field experiments at the Harwood Manufacturing Corporation. The results were clear and con-

clusive: employee participation in decision making improved productivity. Other studies also have supported the desirability and influence of participation in decision making, both in business and in educational organizations.[9] The following generalizations summarize much of the research and theoretical literature on teacher participation in decision making.

- The opportunity to share in formulating policies is an important factor in the morale of teachers and in their enthusiasm for the school.
- Participation in decision making is positively related to the individual teacher's satisfaction with the profession of teaching.
- Teachers prefer principals who involve them in decision making.
- Decisions fail because of poor quality or because they are not accepted by subordinates.
- Teachers neither expect nor want to be involved in every decision; in fact, too much involvement can be as detrimental as too little.
- The roles and functions of both teachers and administrators in decision making need to be varied according to the nature of the problem.

Should teachers be involved in decision making and policy formulation? Wrong question! Sometimes they should. Other times they should not. Involvement can produce either positive or negative consequences. The appropriate questions are: Under what conditions should subordinates be involved in decision making? To what extent? How?

There are a number of models of shared decision making that are useful in answering these questions. The most well-known model is one originally developed by Victor Vroom and Phillip Yetton (1973) and refined by Vroom and Jago (1988). The Vroom-Jago model matches participation in decision making with the nature of the problem and situation. From the extant research, a set of eight rules is developed to improve the quality and acceptance of a decision. In addition, the constraints of time and development are formulated as two additional rules. In brief, these 10 rules provide a complicated model of participation that requires the use of a complex set of decision trees or a computer (Vroom and Jago, 1988). The model has its limitations for practice, in that it is initially difficult to learn and then challenging to apply; nonetheless, students of administration would be well advised to examine the formulation in some depth (Vroom and Jago, 1988; Hoy and Tarter, 1995). We focus our attention on a simplified model of shared decision making developed by Hoy and Tarter (1992, 1993a, 1993b, 1995).

Hoy-Tarter Model of Shared Decision Making

Subordinates accept some decisions without question because they are indifferent to them. As Barnard (1938: 167) explains, there is a **zone of indifference** "in each individual within which orders are accepted without conscious questioning of their authority." Simon prefers the more positive term of **zone of acceptance,** but the terms are used interchangeably in the literature. The

subordinates' zone of acceptance is critical in deciding under what conditions to involve or not involve subordinates in the decision making.

Zone of Acceptance: Its Significance and Determination

Drawing on the work of Barnard (1938), Simon (1947), and Chase (1951), Edwin M. Bridges (1967) advances two propositions about shared decision making:

1. As subordinates are involved in making decisions located within their zone of acceptance, participation will be less effective.
2. As subordinates are involved in making decisions located outside their zone of acceptance, participation will be more effective.

The problem for the administrator is to determine which decisions fall inside and which outside the zone. Bridges suggests two tests to answer this question:

- *The test of relevance:* Do the subordinates have a personal stake in the decision outcomes?
- *The test of expertise:* Do subordinates have the expertise to make a useful contribution to the decision?

The answers to these two questions define the four situations pictured in Figure 9.3. When subordinates have both expertise and a personal stake in the outcomes, then the decision is clearly outside their zone of acceptance. But if subordinates have neither expertise nor a personal stake, then the decision is inside the zone. There are, however, two marginal conditions, each with different decisional constraints. When subordinates have expertise but no personal stake, or have a personal stake but no particular expertise, the conditions are more problematic. Hoy and Tarter (1995) propose two additional theoretical propositions for guidance:

3. As subordinates are involved in making decisions for which they have marginal expertise, their participation will be marginally effective.
4. As subordinates are involved in making decisions for which they have marginal interest, their participation will be marginally effective.

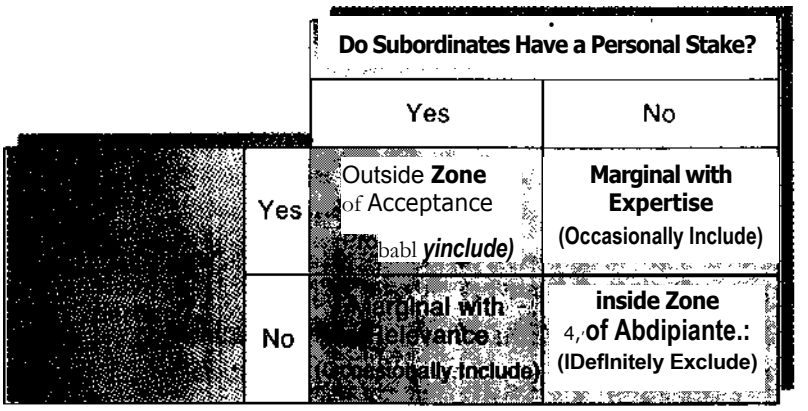


FIGURE 9.3 *The Zone of Acceptance and Involvement*

Trust and Situations

One more consideration is useful if we are to be successful in applying the model to actual problems. Trust of subordinates should sometimes moderate their degree of involvement.[10] When subordinates' personal goals conflict with organizational ones, it is ill-advised to delegate decisions to them because of the high risk that decisions will be made on personal bases at the expense of the overall welfare of the school.[11] Thus subordinate trust is important, and to gauge trust, we propose a final test.

- *The test of trust:* Are subordinates committed to the mission of the organization? And can they be trusted to make decisions in the best interests of the organization?

If the decision is outside the zone of acceptance and if subordinates can be trusted to make decisions in the best interest of the organization, then participation should be extensive. We call this a *democratic situation* because the only issue is whether the decision should be made by consensus or majority rule. But if the decision is outside the zone and there is little trust in the subordinate, then we have a *conflictual situation* and participation should be restricted. To do otherwise invites moving in directions inconsistent with the overall welfare of the organization.

If the decision issue is not relevant to subordinates and they have no expertise, however, then the decision clearly falls within their zone of acceptance and involvement should be avoided; this is a *noncollaborative situation.* Indeed, participation in such cases will likely produce resentment because subordinates typically are not interested.

When subordinates have a personal stake in the issue but little expertise, we have a *stakeholder situation* and subordinate participation should be limited and only occasional. To do otherwise courts trouble. If subordinates have nothing substantive to contribute, the decision ultimately will be made by those with the expertise (not subordinates), and a sense of frustration and hostility may be generated. Subordinates, in fact, may perceive the experience as an empty exercise in which the decisions have "already been made." Daniel L. Duke, Beverly K. Showers, and Michael Imber (1980) conclude from their research that shared decision making is often viewed by teachers as a formality or attempt to create the illusion of teacher influence. On the other hand, occasionally it may be useful to involve teachers in a limited way. When involvement is sought under these circumstances, it must be done skillfully. Its major objectives should be to open communication with subordinates, to educate them, and to gain support for the decision.

Finally, when there is an *expert situation—when* subordinates have no personal stake in the outcomes but do have the knowledge to make a useful contribution. Should subordinates be involved? Only occasionally! To involve them indiscriminately in decisions of this type is to increase the likelihood of alienation. Although involvement under these circumstances increases the administrator's chances of reaching a higher-quality decision, subordinates too often are likely to wonder aloud "what the administrator gets paid for." These decision situations and appropriate responses are summarized in Figure 9.4.

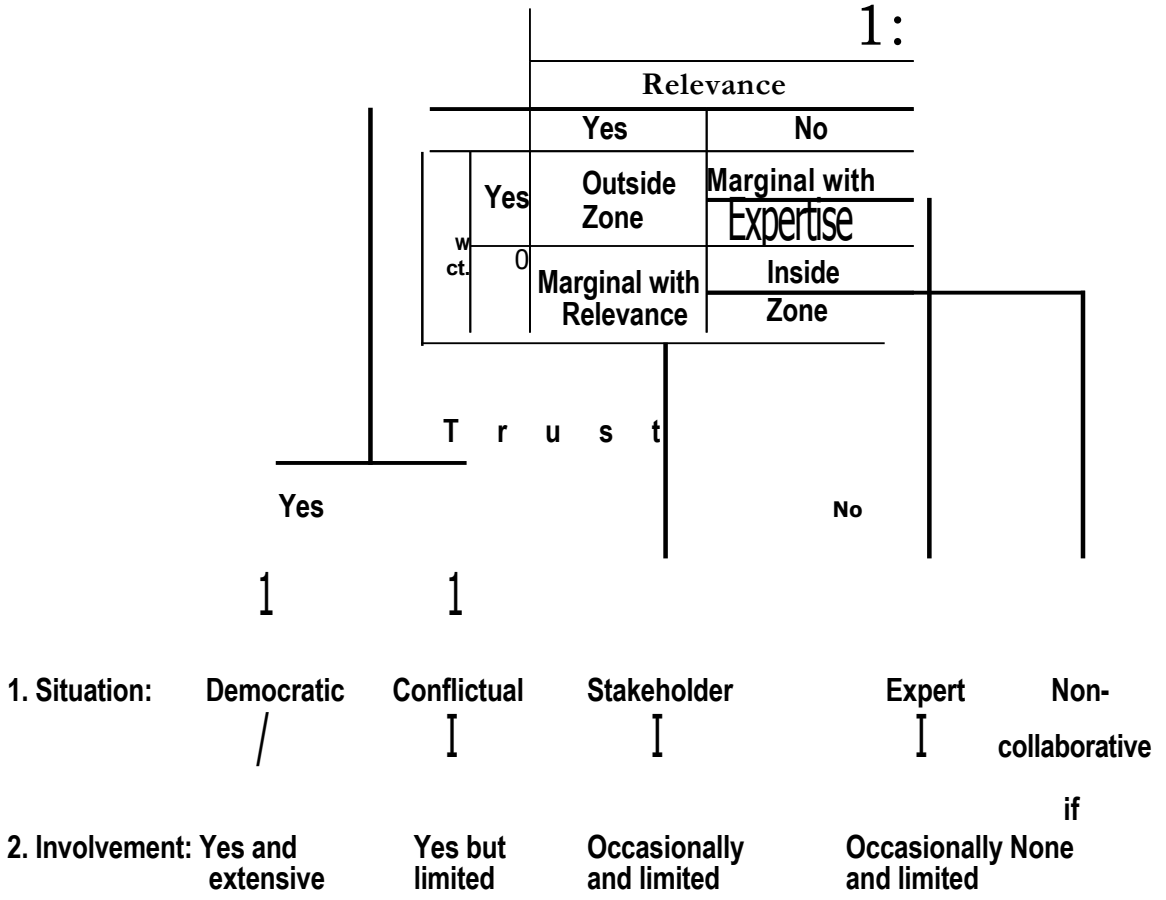


FIGURE 9.4 *Decision Situation and Subordinate Involvement*

Decision-Making Structures

Once the administrator has determined that subordinates should be involved in deciding, the next question becomes how the process should proceed. Hoy and Tarter (1995) suggest five decision-making structures:

1. *Group consensus:* The administrator involves participants in the decision making, then the group decides. All group members share equally as they generate and evaluate a decision, but total consensus is required before a decision can be made.
2. *Group majority:* The administrator involves participants in the decision making, then the group decides by majority rule.
3. *Group advisory:* The administrator solicits the opinions of the entire group, discusses the implications of group suggestions, then makes a decision that may or may not reflect subordinates' desires.
4. *Individual advisory:* The administrator consults with subordinates individually who have expertise to inform the decision, then makes a decision that may or may not reflect their opinions.
5. *Unilateral decision:* The administrator makes the decision without consulting or involving subordinates in the decision.

TABLE 9.3

Administrative Roles for Shared Decision Making

Role	Function	Aim
Integrator	Integrates divergent positions	To gain consensus
Parliamentarian	Promotes open discussion	To support reflective group deliberation
Educator	Explains and discusses issues	To seek acceptance of decisions
Solicitor	Solicits advice	To improve quality of decisions
Director	Makes unilateral decisions	To achieve efficiency

Leader Roles

Thus far we have focused on subordinates in shared decision making. Now we turn to the administrator and define five leadership roles: integrator, parliamentarian, educator, solicitor, and director. The *integrator* brings subordinates together for consensus decision making. Here the task is to reconcile divergent opinions and positions. The *parliamentarian* facilitates open communication by protecting the opinions of the minority and leads participants through a democratic process to a group decision. The *educator* reduces resistance to change by explaining and discussing with group members the opportunities and constraints of the decisional issues. The *solicitor* seeks advice from subordinate-experts. The quality of decisions is improved as the administrator guides the generation of relevant information. The *director* makes unilateral decisions in those instances where the subordinates have no expertise or personal stake. Here the goal is efficiency. The function and aim of each role is summarized in Table 9.3.

Putting It Together: A Model for Shared Decision Making

Administrators are too often exhorted to involve teachers in all decisions. The more appropriate stance is to reflect upon the question: When should others be involved in decision making and how? We have proposed a model that answers this question.

The key concept in the model, drawn from Barnard (1938) and Simon (1947), is the zone of acceptance. There are some decisions that subordinates simply accept and, therefore, in which they need not be involved. The administrator identifies those situations by asking two questions:

1. *Relevance question:* Do the subordinates have a personal stake in the outcome?

2. *Expertise question:* Can subordinates contribute expertise to the solution?

If the answer to both these questions is yes, the subordinates have both a personal stake in the outcome and the expertise to contribute, then the situation is outside the zone of acceptance. Subordinates will want to be involved, and their involvement should improve the decision. However, one must next evaluate their commitment to the organization by asking the following question:

3. *Trust question:* Can subordinates be trusted to make a decision in the best interests of the organization?

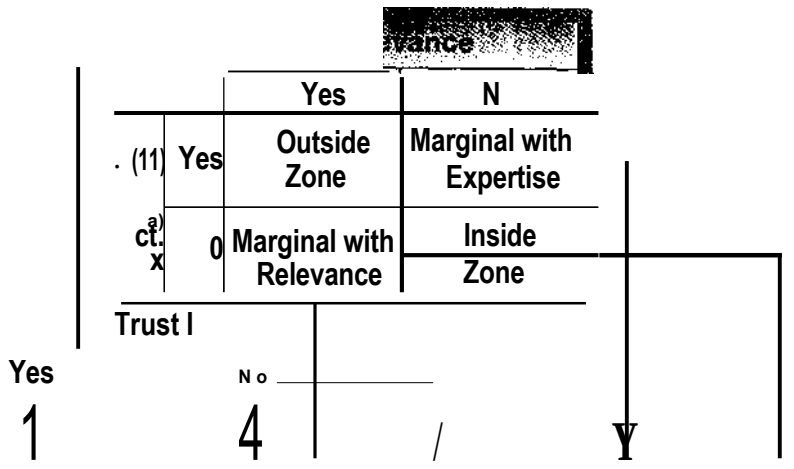
If they are committed, their involvement should be extensive as the group tries to develop the "best" decision. In the process, the role of the administrator is to act either as an integrator (if consensus is essential) or as a parliamentarian (if a group majority is sufficient). If subordinates are not committed (conflictual situation), their involvement should be limited. In this situation the administrator acts as an educator, and the group serves to advise and identify pockets of resistance.

If, however, subordinates have only a personal stake in the decision but no expertise (stakeholder situation), their involvement should be occasional and limited. Subordinates are interested in the outcome, but they have little knowledge to bring to bear on the decision. The reason for occasional involvement in this situation is to lower resistance and educate participants. If the involvement is more than occasional, the danger is alienation as teachers feel manipulated because their wishes are not met. At the outset, all parties should know that the group is clearly advisory to the leader. The administrator's role is to decide and educate.

If subordinates have expertise but no personal stake (expert situation), their involvement should also be occasional and limited as the administrator attempts lb improve the decision by tapping the expertise of significant individuals who are not normally involved in this kind of action. At first blush, one might think that expertise should always be consulted in a decision, but if workers have no personal stake in the outcomes, their enthusiasm will quickly wane. They may well grumble, "This isn't my job."

In noncollaborative situations the teachers have neither the interest nor the expertise to contribute to the decision. Yet there is such a strong norm about involving teachers in all sorts of decisions that school administrators often feel constrained to involve teachers regardless of their knowledge or interest. Such ritual is dysfunctional and illogical. Why would you involve someone in a decision when that person doesn't care and can't help? The model suggests that administrators make direct unilateral decisions when the issue is within the zone of acceptance of subordinates. The entire model is summarized in Figure 9.5.

This model for shared decision making is not a panacea. It is not a substitute for sensitive and reflective administrative thought and action; it simply provides some guidelines for determining when and how teachers and



1. Situation:	Democratic	Conflictual Stakeholder	Expert	Non-collaborative	
2. Involvement:	Yes and extensive	Yes but limited	Occasionally and limited	Occasionally and limited	None
3. Decision-structures:	Group consensus	Group majority	Group advisory	Group advisory	Individual advisory / Unilateral making
4. Role of superior:	Integrator	Parliamentarian	Educator	Educator	Solicitor / Director

FIGURE 9.5 *A Normative Model for Participative Decision Making*

principals should be involved in joint decision making. The effectiveness of decisions is determined by both the quality of the decision and the acceptance and commitment of subordinates to implement the decision.

A Caution on Group Decision Making: Groupthink

There is little question that group decision making can be an effective process, but there are some dangers even when the conditions call for a group decision. Time is always a potential constraint on participation in decision making, and group decisions typically require more time than individual decisions. Participation involves discussion, debate, and often conflict; in fact, as the number of actors increases in the process, coordination

becomes more important and difficult. Speed and efficiency are not basic advantages of group decision making.

Although participation in decision making can produce rampant conflict in the group, success in group problem solving often produces a strong cohesiveness, especially among members of smaller "in" groups. Too much cohesiveness can be as dangerous as conflict. Conflict prevents action; strong cohesiveness promotes uniformity within the group. The problem with uniformity is that it can produce a like-mindedness that is uncritical. Janis (1985) highlights this concurrence-seeking tendency among moderately or highly cohesive groups. When the tendency is dominant, the members use their collective cognitive resources to develop rationalizations consistent with the shared illusion about the invulnerability of their organization; that is, they display the **groupthink syndrome.**

The following eight main symptoms of groupthink characterize historic decision-making fiascoes (Janis and Mann, 1977; Janis, 1982):

- *Illusion of invulnerability:* Members ignore obvious danger, take extreme risks, and are overly optimistic.
- *Collective rationalization:* Members discredit and explain away warning contrary to group thinking.
- *Illusion of morality:* Members believe their decisions are morally correct, ignoring the ethical consequences of their decisions.
- *Excessive stereotyping:* The group constructs negative stereotypes of rivals outside the group.
- *Pressure for conformity:* Members pressure any in the group who express arguments against the group's stereotypes, illusions, or commitments, viewing such opposition as disloyalty.
- *Self-censorship:* Members withhold their dissenting views and counterarguments.
- *Illusion of unanimity:* Members perceive falsely that everyone agrees with the group's decision; silence is seen as consent.
- *Mindguards:* Some members appoint themselves to the role of protecting the group from adverse information that might threaten group complacency.

Conditions That Foster Groupthink

Janis (1985) provides a comprehensive analysis of the conditions that encourage groupthink. The likelihood that groupthink will occur in cohesive groups depends on a number of conditions. One of the most potent conditions is insulation from direct contact with others in the same organization who are not members of the "in" group of policy makers. As Janis (1985) explains:

> For example, an insulated group of executives is likely to receive only brief and unimpressive summaries of warning about the insurmountable difficulties of implementing a strategic reorganization or a new method of production that is under consideration. The top commanders of the organization may end up concurring on a course of action that many

> middle-level and lower-level personnel on the firing line could have informed them in advance would not be feasible. (p. 174)

Lack of impartial leadership also will encourage concurrence seeking, especially when the leader is strong and charismatic. Followers seek to please such leaders, and knowing a leader's initial preferences channels their thinking. Moreover, lack of norms requiring systematic analysis as well as homogeneity of members' social background and ideology contribute to like-mindedness.

Similarly, the situational context may nurture groupthink. We have already discussed the negative consequences produced by stress. High stress from external threats combined with little hope that the leader will advance a better solution pushes the group toward uncritical consensus. Furthermore, low self-esteem of the group, temporarily induced by recent failures, excessive difficulties, and moral dilemmas, fosters groupthink. All these antecedent conditions promote a tendency toward concurrence seeking, which in turn produces the consequences of groupthink—overestimation of the group, closed mindedness, and pressure of unanimity. Such behavior makes for low vigilance in decision making, which ultimately results in defective decision making with a low probability of a successful outcome.

Avoiding Groupthink

There are a number of ways to prevent groupthink. The following 10 recommendations are a tentative set of prescriptions for counteracting the conditions that foster groupthink (Janis, 1985).

1. The group should be made aware of the causes and consequences of groupthink.
2. The leader should be neutral when assigning a decision-making task to a group, initially withholding all preferences and expectations. This practice will be especially effective if the leader consistently encourages an atmosphere of open inquiry.
3. The leader should give high priority to airing objections and doubts, and be accepting of criticism.
4. Groups should always consider unpopular alternatives, assigning the role of devil's advocate to several strong members of the group.
5. Sometimes it is useful to divide the group into two separate deliberative bodies as feasibilities are evaluated.
6. The group should spend a sizable amount of time surveying all warning signals from rival groups and organizations.
7. After reaching a preliminary consensus on a decision, all residual doubts should be expressed and the matter reconsidered.
8. Outside experts should be included in vital decision making.
9. Tentative decisions should be discussed with trusted colleagues, not in the decision-making group.
10. The organization should routinely follow the administrative practice of establishing several independent decision-making groups to work on the same critical issue or policy.

THEORY INTO PRACTICE

Anonymous Letter'2

Jack Garner is the principal of Dewey Elementary School. Dewey is one of five elementary schools in Pleasantville, a community of 30,000 in a middle Atlantic state.

Pleasantville is an interesting cross section of America. It is a working-class community in transition to a different kind of workforce. The old work of farms, mills, and mines has given way to newer occupations in a small aircraft plant and in the emergence of the state college (recently renamed the State University at Pleasantville). The paper mill, a carpet factory, a chemical plant, a small steel mill, and a coal mine were formerly the major employers of the townspeople. But recently, much to the dismay of the working people in Pleasantville, most of the factories and mills are in decline. Unemployment is up to 13 percent and not getting better. The people blame the government. In the old days, there had been no EPA and no environmentalists and no interference from the state and federal bureaucrats. In those days, people worked hard and made a decent living.

With the advent of environmental protection regulations and changes in the marketplace, the steel mill employs only half the people it employed 15 years ago. So too with the paper mill and the coal mine. The chemical plant is on the verge of bankruptcy because newer dyes are imported from abroad and expensive chemical cleanup projects have plagued the plant for the past three years. In fact, there seems to be only one major industry that is thriving in Pleasantville—the state university. It is growing, from an enrollment of 2,000 10 years ago to nearly 10,000 students today. Although construction of the expanding campus produced many jobs during the past five years, it did not offset the decline of the old industries. Moreover, many of the jobs that were produced by the state university were professional positions that required employment of outsiders rather than townspeople.

Some people resent the intrusion from the outside and harken back to the halcyon day of the past. Others in the community, especially businesspeople, welcome the expansion of the school and are proud of the fact that Pleasantville has become sophisticated.

Jack Garner is no stranger to Pleasantville. At 35, his entire life has been spent in and around Pleasantville. He went to, elementary school, junior high, and high school in town. Upon graduation, he went to the local state college and majored in education. His first job was as a science teacher at Pleasantville High. During his first year of teaching, Jack Garner decided that he wanted an expanded role in education down the road. He began taking curriculum classes in the summers at the main campus of the state university, 65 miles from Pleasantville.

Taking courses at the main campus was Garner 's first real exposure to life outside Pleasantville. A chronic bad knee had kept him out of the service, and perhaps just as well. Thinking back, Garner judged the experience at the main campus to be an eye-opener for a country boy, as he sometimes refers to himself. Ten years later, he had completed his doctorate in educational curriculum, served as districtwide elementary science curriculum coordinator, and as a result of his success in working with people and his genuine good sense, he was promoted to principal of the new Dewey Elementary School. Some might think that Dewey is a progressive school, but the Dewey this elementary school was named after was Thomas, the former governor of New York, not the educator. Therein lay a substantial difference. Dewey Elementary School is not a place hospitable to change. Former students who grew up in the system send their 'children to Dewey. They want the same good education they had received—no frills, no life adjustment, no multiculturalism, no debates on right to life or the nature of families, just basic learning in reading, math, science, writing, and history.

There is no questicin that the surroun neighborhood of Dewey is conservative, but it is slowly changing as more, and atoxe, sors buy housess in Dew [illegible] the Dewey neighborhood [illegible] residential area for p [illegible] community.

THEORY INTO PRACTICE, (Continued)

As a curriculum person and skillful administrator, Garner has been able to initiate a strong elementary school curriculum. He has combined many of the elements of cooperative learning and mastery education in order to engage students individually and collectively in the pursuit of math, science, and reading. His whole-language approach to the teaching of English and composition is a model that is frequently observed by students from the local college. (Garner has a hard time thinking of his undergraduate school as a state university; he still thinks of it as his college.) Five years as curriculum coordinator and five years as principal have produced a school of which he is proud. The elementary school students continue to do well and parents are generally supportive of his initiatives, even though some complain that he is getting away from the basics.

It is Monday morning. As Jack reviews his mail, he *is* shocked by the third letter he opens and reads.

May 11

Dear Dr. *Garner:*

You should know that your science curriculum supervisor is a homo. He lives with another man and I have seen them fondling each other in the tavern in Greenville. I don't care what people do in their private lives, but teachers are different. I don't want my *son endangered by this guy. Of course, there is always the question of AIDS, and I don't want him' abusing my child. There is a rumor that Jenkins has not been well. Frankly, we're worried for the safety of our children.*

We know that you are with us on this issue. After all, you are one of us. Why don't you do something about this? Everyone is talking about it. And if you *don't do something, I can't be responsible for what some hotheads might do. Jenkins is in some danger.*

I am *not going to sign this letter because I don't want to be involved in this, but I think you ought to know about the situation. Someone is going to get hurt. Do something before it becomes a police matter.*

Sincerely,

A Concerned Parent

Matt Jenkins had been Gamer's new elementary science supervisor for the past three years. Although Garner had not hired Jenkins directly, the former superintendent, who had,**thought** highly of Jenkins, consulted him. Gamer had called one of his former professors in curriculum at the state university and the professor had said, "He *is* a little peculiar but without question he is one ot the brightest and most creative students I have kno.wn He will be an asset to your program." Without much further ado, Jenkins was hired, even though he was an outsider and a segment of the community was opposed to hiring from the outside.

There is no question in Garner's mind that Jenkins had shown strong leadership in improving the science curriculum at Dewey. Other teachers like him because he is low-key, supportive, sensitive, and nurturing. He has a few odd mannerisms, but they don't seem to bother anyone. He stays to himself and lives 10 miles outside the city, in a small suburb of Pleasantville called Greenville No one seems to know much about Jenkins or his personal life. Rumor has it that Jenkins spends a lot of his time at University Station, the main campus of the state university. Many of the townspeople take a dim view of the liberal goings-on in University Station, but it is a world away. Only one time could Gamer remember any negative comments about Jenkins. One of the parents had complained that he was always touching her son. Gamer had discreetly looked into this matter and found nothing substantial. Rather, he found that Jenkins had grabbed the student in question a number of times to correct his aggressive behavior with the other children. The student in question was a little on the wild side.

Garner was a bit surprised to discover that Jenkins lives with a new high school English teacher, Brad Korbus. Gamer had been instruniental in the recruitment and selection of Korbus, and now the two teachers were roommates in Greenville. Garner is inclined to believe that whatever people do privately is their own business. His policy for dealing with anonymous letters is *tee* this letter troubles him.

He *felt* constrained to doso [illegible]. He thought about turning the [illegible]

THEORY INTO PRACTICE, (Continued)

local police. Should he talk to his superintendent? Is this a crank letter from an isolated individual? Does he have a right to make inquiries—even if done discreetly? Should he talk to Jenkins? What would he say, if he did? Suppose Jenkins is gay and living with another man, would it matter? Is there a problem? A potential problem? Is this a time for preventive action? Or will any action simply exacerbate the situation? Is it time for the district to develop a policy on private behavior or alternative lifestyles?

Assume the role of principal.

- What are the short-term and long-term problems in this case?
- Is this a case for satisficing, muddling through, or adaptive scanning?
- What are your immediate and long-term plans?
- Who should be involved in this decision and how?
- No matter what your eventual strategy, make sure it includes a plan to address the dysfunctional consequences of your actions.

SUMMARY AND SUGGESTED READINGS

An understanding of the decision-making process is vital to successful administration. Four basic strategies of managerial decision making are identified and described. The optimizing strategy of the classical model is found not to be useful to administrators because it assumes perfect information, rationality, and human capacity not found in the actual world of administration.

Although completely rational decision making is impossible, administrators need a systematic process to enhance the selection of satisfactory solutions. Thus, a strategy of satisficing is central to decision making in the administrative model. Here decision making is a cycle of activity that includes recognition and definition of the problem, analysis of difficulties, establishment of criteria for a satisfactory resolution, development of a plan of action, and initiation of the plan. Because of its cyclical nature, the decision-making action cycle may be entered at different stages and the stages are gone through again and again in the process of administration.

The satisficing strategy is well suited for dealing with many problems in educational administration; however, when the set of alternatives is indefinable or the consequences of each alternative are unpredictable, then an incremental strategy may seem more appropriate. This process is a method of successive limited comparisons; only a limited set of alternatives, similar to the existing situation, is considered by successively comparing their consequences until agreement is reached on a course of action. It is assumed that small changes are not likely to produce large negative consequences for the organization.

Incrementalism, however, can be too conservative and self-defeating. Incremental decisions made without fundamental guidelines can lead to action without direction. Thus, the mixed-scanning model of decision making is proposed for complex decisions. Mixed scanning unites the best of both the administrative and the incremental models. A strategy of satisficing is used in combination with incremental decision making guided by broad policy.

Full scanning is replaced by partial scanning and tentative decisions are made incrementally in a process that is guided by a clear sense of destination.

As in most complex tasks, however, there is no single best approach to deciding; the best strategy is the one that best matches the circumstances. We have proposed a set of guidelines that matches the right strategy with the situation.

The garbage can model of organizational decision making is useful for understanding nonrational decisions. In this model, the decision does not begin with a problem and end with a solution; rather, organizations are viewed as sets of choices looking for problems, issues and feelings seeking opportunities, solutions searching for problems, and administrators looking for work. Problems, solutions, participants, and choice opportunities act as independent events. When they mesh, some problems are solved, but in this chaotic decision process many problems are not solved—they simply persist. The model explains why solutions may be proposed to problems that do not exist and why irrelevant choices are made.

Regardless of the strategy, decision making often causes stress, which produces irrationality. The conditions under which stress has unfavorable effects on the quality of decision making are discussed, and five coping mechanisms that decision makers are most likely to use in stressful situations are analyzed.

It is not always beneficial for administrators to involve subordinates in decision making. A simplified model of shared decision making is proposed to help administrators determine under what conditions subordinates should and should not participate in the decision-making process. The framework uses the tests of relevance, expertise, and commitment as guides for participation. Administrators, depending on the circumstances, use the roles of integrator, parliamentarian, educator, solicitor, and director. Finally, the conditions that foster groupthink are analyzed, and suggestions are proposed for avoiding them.

Decision making is a complex process. Ideas and theories are drawn from such diverse disciplines as cognitive science, economics, political science, psychology, and sociology. Several supplementary books are useful to beginning students. James G. March (1994) provides a primer on decision making; his book is concerned with how decisions actually happen rather they how they should; his ideas are simple and straightforward. Amitai Etzioni (1988) reminds us of the moral dimension of decision making and the centrality of moral issues in economic thought. Two edited selections are worth perusing: Mary Zey's (1992) collection pursues alternatives to the rational-choice models, and the March (1988) selections examine decision making under ambiguity. For those students who want a sophisticated treatment of participation in decision making, Victor Vroom and Arthur Jago (1988) provide an excellent and comprehensive model. Hoy and Tarter (1995) use case studies to link decision theory to problems of practice; they demonstrate the utility of good theory in solving actual administrative problems in schools. Finally, Willower and Licata (1997) discuss values and valuation in educational decision making and demonstrate the use of "consequence analysis" to solve the problems of practice.

NOTES

1. Research suggests that many administrators ignore normative methods prescribed by scholars for effective decision making and persist in questionable decision tactics. See Nutt (1984).
2. What has been termed policy making in the public sector is often discussed as strategic formulation in the private sector; for example, see Henry Mintzberg (1978) and Johannes Pennings (1985).
3. For an excellent discussion and application of values and valuation in the practice of educational administration, see Willower and Licata (1997).
4. Iterations of this cycle occur frequently in the organizational literature. For example, see Griffiths (1959) and Daft (1989).
5. The problem is much more complex, however, if it also involves the integration of minority students into segregated schools.
6. A critical and interesting analysis of heuristics is made by a group of cognitive psychologists called the *prospect school*. Their main thesis is that individuals cope with their limited cognitive abilities by using heuristic devices to solve complex problems. Although the heuristics help, they themselves sometimes introduce systematic biases that may subvert decision making. For example, see Nisbett and Ross (1980) and Kahneman, Solvic, and Tversky (1982).
7. Etzioni (1967) reports that 50 articles and Ph.D. dissertations have been written on mixed scanning since his original article. For his synthesis, see Etzioni (1986).
8. This section draws heavily on the work of Janis (1985) and Janis and Mann (1977).
9. For studies that support the desirability of participation in decision making, see Sharma, 1955; Guest, 1960; Vroom, 1960, 1976; Belasco and Allutto, 1972; Allutto and Belasco, 1973; Conway, 1976; Hoy, Newland, and Blazovsky, 1977; Driscoll, 1978; Mohrman, Cooke, and Mohrman, 1978; Moon, 1983. For a comprehensive and somewhat critical review of participation in decision making, see Locke and Schweiger (1979). Likewise, for a review of participative decision making in education, see Conway (1984). The effects of subordinate participation in decision making, however, are neither simple nor unambiguous; for example see Imber, 1983; Conway, 1984; Imber and Duke, 1984; Vroom and Jago, 1988; Conley, Bower, and Bacharach, 1989; Bacharach, Bamberger, Conley, and Bauer, 1990; Conley, 1990.
10. In earlier versions of this model, this third test was called commitment; we believe trust is a better word to capture the meaning of the test.
11. For a useful distinction between shared decision making and delegation of decision making, see Hoy and Sousa (1984), and for a critical analysis on participation in schools, see Keith (1996).
12. Hoy and Tarter (1995) illustrate the application of decision theory to practice with actual contemporary cases and then provide 30 new cases

from educational settings for consideration. The anonymous letter was written by Hoy and Tarter for this chapter. From Hoy and Tarter Administrators Solving the Problems of Practice. Copyright 1995 by Allyn & Bacon. Adapted by permission.

KEY CONCEPTS AND IDEAS

Adaptive strategy
Administrative model
Anchoring-and-adjustment heuristic
Availability heuristic
Boundary conditions
Bounded rationality
Classical model
Defensive avoidance
Garbage can model
Generic decisions
Groupthink syndrome
Heuristics
Hypervigilance
Incremental model
Mixed-scanning model
Muddling through
Opportunistic surveillance
Optimizing
Policy
Problemistic search
Recognition Heuristic
Representative heuristic
Satisficing
Unconflicted adherence
Unconflicted change
Unique decisions
Vigilance
Zone of acceptance
Zone of indifference

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