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THE UNIVERSITY OF OKLAHOMA  
GRADUATE COLLEGE

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ON THE ORGANIZATION

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THE MANAGEMENT SYSTEM AND ITS IMPACT  
ON THE ORGANIZATION

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THE MANAGEMENT SYSTEM AND ITS IMPACT  
ON THE ORGANIZATION

CHAPTER I

PURPOSE, OBJECTIVES, AND METHODOLOGY

Introduction

In his book, Administrative Behavior, Simon has noted that much of what an executive does in an organization has its principal effect on shortrun, day-to-day operations; that each decision has an immediate effect of settling the specific question before him. But this stream of decisions or refusals to decide--like the erosion of a small but steady trickle of water--has an important cumulative effect on the patterns of action in the organization around him.<sup>1</sup>

Much of the prevailing management literature reflects similar sentiments. Studies by Likert, Blake and Mouton, Reddin, Litwin and Stringer, and many others have emphasized the importance of "management style."

It is not uncommon to find in the management

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<sup>1</sup>Herbert A. Simon, Administrative Behavior (2d ed.; New York: Free Press, 1965), p. xvi.

literature the proposition that a more participative style of management will result in improved organizational performance as reflected by individual motivation and higher organizational output and efficiency. McGregor, Likert, and K. Davis are closely associated with this view.

Although discussions of management style frequently emphasize interpersonal relationships between the leader and the led, from the standpoint of the organization optimum individual effectiveness can take place only in an appropriate, total organizational climate. Litwin and Stringer have noted that top management's ability to influence the organizational climate is, perhaps, the most powerful leverage point in the entire management system. The managerial style of the leader of the organization provides a major input to the cultural atmosphere under which his organization functions. Because climate can affect the motivation of organization members, changes in certain climate properties could have immediate and profound effects on the performance of all employees.<sup>2</sup>

Reddin, Likert, and Litwin and Stringer have postulated theories concerning the impact that individual managerial styles have on the total management system, the overall organizational climate, and the performance characteristics of the organization. A major objective of this study

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<sup>2</sup>George H. Litwin and Robert A. Stringer, Jr., Motivation and Organizational Climate (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968), p. 169.

will be to determine the validity and generality of these theories when applied to a specific organizational setting. A 60-bed government hospital has been chosen to analyze management style in terms of the resulting management system, organizational climate and performance factors.

The concept to be applied to the hospital environment is graphically depicted in Figure 1.1. In addition, the sequential development of the theoretical foundation of the study is based on this illustration.

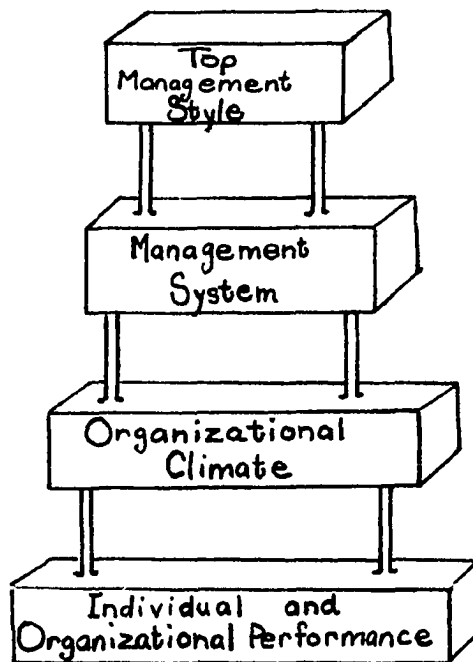


Fig. 1.1.--Framework of the study

First, the behavior patterns adopted by top management determines the "style" of top management. This style influences the behavior patterns of other managers in the

organization which are collectively called the "management system." The management system, in turn, is a major determinant of the "organizational climate" existing in the organization. Lastly, organizational climate is a direct determinant of "individual" motivation and total "organization performance." Precise definitions of these and other key terms used in the study will clarify the concepts involved.

### Terminology

To avoid confusion and to standardize terminology, it is necessary to apply specific definitions to a number of key concepts used in this study. These concepts and their definitions are as follows:

Managerial style: the behavior patterns adopted by an individual manager in his efforts to attain organizational goals. It is the dominant behavior patterns that habitually define a manager's daily actions and which are variously labeled along a continuum as being democratic or authoritarian (production- or employee-centered).<sup>3</sup>

Management system: the generalized, overall management style which organization members perceive being used throughout the total organization. Described by the terms exploitative-authoritative, benevolent-authoritative,

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<sup>3</sup>Both McGregor and Gellerman find the word "style" unattractive but continue to use the inadequate term without further qualification, both for the sake of simplicity and the inability to find another term in common use that conveys the intent as well.

consultative or participative, it is the mainstream or typical managerial style perceived by organization members and which characterizes, at least in an approximate way, the actions of most managers in an organization.<sup>4</sup>

Organizational profile: the combination of organizational variables (such as leadership, communication, and control), which are used to describe the management system.<sup>5</sup>

Organizational climate: a set of measurable properties of the work environment (such as responsibility, structure, and standards), perceived directly or indirectly by the people who live and work in this environment and which are assumed to influence their motivation and behavior.<sup>6</sup>

Organizational performance: the objective and subjective measurement of organizational effectiveness.

Using this terminology as a foundation, the purpose, importance, and related research methods of the study can now be stated.

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<sup>4</sup>The term management system has been used by Likert in his book, The Human Organization, however, he offers no formal definition. This definition has been adopted by the author to convey as closely as possible the same concept as Likert when he speaks of the management system.

<sup>5</sup>Other equally important variables are: motivational forces, interaction-influence, decision making process, goal setting, and performance goals and training. These profile variables are listed in Likert's questionnaire "Profile of Organizational Characteristics."

<sup>6</sup>This definition is taken directly from Litwin and Stringer, Organizational Climate, p. 1. The other specific properties are: reward, risk, warmth, support, and identity.

### Purpose of the study

The growth of an empirical doctrine is based upon the systematic accumulation and verification of knowledge. A major endeavor in the furthering of an empirical doctrine is to expand and to verify previously observed events.<sup>7</sup> The purpose of this study is to present an integrated theory concerning the influence of top management's style on the management system and the impact of the management system on organizational climate and individual and organizational performance. This purpose will be achieved by building on the theories of Reddin, Likert, and Litwin and Stringer and by testing the validity and applicability of these integrated theories to a government hospital. Specifically, the following questions will be investigated:

1. Is there a similarity between the self-perceived style of an organization's leader and of the second level managers?

2. Is there a difference between the managerial style as perceived by top management and the management system perceived by other members of the organization?

3. What type of management system do workers prefer in a government hospital environment?

4. What is the relationship between top managerial style, the management system, organizational climate, and

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<sup>7</sup>J. F. Rummel and W. C. Ballaine, Research Methodology in Business (New York: Harper and Row, Publishers, 1963), pp. 2-3.

organizational performance in a hospital?

### Importance of the Study

A great deal of research has focused on the behavioral aspects of the individual within the organization. Attention has also been directed toward the importance of the immediate "job climate" (as opposed to organizational climate) as a parameter of organizational effectiveness. This study, however, centers on the macro-interaction of total organizational variables in contrast to the micro-interaction of an individual. Blake and Mouton have emphasized the importance of this approach. They use the term "organizational culture," stating that "when a manager sees his responsibility as that of managing a culture rather than just managing people to get work out of them, the basic unit of development is no longer the individual considered separately and alone."<sup>8</sup> A complex system such as an organization should be viewed as a whole; it can then be assessed for excellence.<sup>9</sup>

Likert has pointed out that the lag in the use of the social sciences by industry and government is comparable to the lag in the use of the physical sciences prior to the 1920's.<sup>10</sup> Blake and Mouton expand this view by noting that

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<sup>8</sup>Robert R. Blake and Jane S. Mouton, The Managerial Grid (Houston: Gulf Publishing Company, 1964), p. 169.

<sup>9</sup>Robert R. Blake and Jane S. Mouton, Building a Dynamic Corporation Through Grid Organization Development (Reading, Mass.: Addison-Wesley Publishing Company, 1969), p. 17.

<sup>10</sup>Rensis Likert, The Human Organization (New York: McGraw-Hill Book Company, 1969), p. 105.

the lag results from a difference between "what is" and "what should be," which they equate to "cultural lag."<sup>11</sup> The application of various social science behavioral theories and measurement tools to evaluate an on-going organization should serve to reduce this lag.

This study has two unique characteristics. The first is the application and comparison of previous behavioral research studies to the government hospital environment. Secondly, it is a synthesis of the management theories of Reddin, Likert, and Litwin and Stringer. This synthesis is accomplished through the use of three standardized testing instruments. These instruments have proven useful to Reddin, Likert, and Litwin and Stringer in building their individual theories concerning the impact of the management system on the organization.

### Research Methodology

Basic to good scientific research is a theory which serves as a point of departure for the successful investigation of a problem.<sup>12</sup> Reddin, Likert, and Litwin and Stringer have been cited as providing the theories on which this study is based. It is appropriate, then, to discuss how the tools of research will be used to extend, correct, or verify these theories when applied to a government hospital. It is also

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<sup>11</sup>For a complete discussion of this point see Blake and Mouton, Grid Organization Development, pp. 1-9.

<sup>12</sup>Rummel and Ballaine, Research Methodology, p. 14.



necessary to characterize the methodology which is being used.

The nature of this study is both descriptive and exploratory. It is descriptive because it analyzes top management style, the management system, and organizational climate and performance. It is also descriptive in that the case-study method is used. Good and Scates note that the essential procedure of the case-study method is to take account of all pertinent aspects of one thing or situation, employing as the unit for study an individual, an institution, a community, or any group considered as a unit. In a case-study the complex situation and combination of factors involved in the given behavior are examined to determine the existing status and to identify the causal factors operating.<sup>13</sup> In this research the unit of study is a hospital and the causal factors being investigated are top management's style, the management system, and organizational climate.

The study is also exploratory because comprehensive management literature dealing specifically with behavioral application to a government hospital environment is limited. It is within this framework that further methodological aspects of the research will be discussed.

### Hypotheses To Be Tested

The management system is the generalized, overall management style which organization members perceive is being

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<sup>13</sup>C. G. Good and D. S. Scates, Methods of Research (New York: Appleton-Century-Crofts, Inc., 1954), p. 726.

used throughout the total organization. Often, the focus of management studies is: what type of management system produces organizational excellence? As students in the behavioral sciences became more interested in the organizational setting, their interests turned to this question.

Likert's studies revealed a relationship between the management system and an organization's performance and effectiveness. Litwin and Stringer, on the other hand, showed a relationship between organizational climate and individual motivation and performance. They postulated that the style of top management is a primary causal factor of this relationship. This study will combine these views to test the following hypotheses:

1. The perceived managerial style of second level managers is consistent with that style perceived by the leader of the organization.
2. The management system, as perceived by members of the organization, differs from the managerial style which top management perceives it is using.
3. Government hospital employees prefer participative management systems over authoritative management systems.
4. There is a positive correlation between the management system and organizational climate. More specifically, there is a positive relationship between the management system as perceived by organization members and the climate

properties existing in the organization.

5. The management system being used in an organization is a determinant of the organization's performance. This hypothesis stems from Likert's contention that high-performance organizations employ more participative management systems while low-performance organizations are characterized as using more traditional, autocratic management systems.

Minor hypotheses pertaining to organizational profile and climate variables are:

6. There is a positive intercorrelation between organizational profile variables, indicating internal consistency of the management system.

7. There is a positive intercorrelation between organizational climate scale factors which indicate scale consistency (referring to the extent that items in a scale are positively related and measuring the same thing).

#### Survey Design and Data Collection

A series of three standardized questionnaires were used to test the hypotheses and examine their generality and applicability. The use of these standardized instruments considerably reduced the problems of survey design and improved the probability of reliable research results. The questionnaires have been developed and previously tested for reliability and validity through factor analysis. Improved versions have been published to facilitate further research.

The first, to be administered to the top two levels :

of management, is adopted from Reddin's "3-D" theory presented in his book, Managerial Effectiveness. It is called the "Management Style Diagnosis Test" and is designed to provide a self-assessment of key managerial orientations (see Appendix I). The intent in administering this questionnaire is threefold: (1) to determine how the top six managers in the hospital perceive their own managerial style, (2) to determine if there is any consistency between styles, and (3) to assess the overall style of top management by combining the six style scores into one top management team score. The results will be related to the first and second hypotheses.

A second questionnaire, "Profile of Organizational Characteristics," is adopted from Likert's book, The Human Organization. It will be given to a sample of approximately 100 persons and will provide an indication of (a), the management system which hospital members perceive being used in the organization and (b), the management system they would prefer (see Appendix II). The results will be used to test the second through fifth hypotheses.

The Litwin and Stringer "Organizational Climate Questionnaire" is adopted from their book, Motivation and Organizational Climate. It will be given to the same sample of approximately 100 persons and will be used to determine the organizational climate existing in the hospital as perceived by organizational members (see Appendix III). It will be used to test the fourth and seventh hypotheses.

To preserve the anonymity of the respondents' replies each questionnaire will be distributed and collected individually and personally. This method facilitates the mechanics of the process. It also emphasizes that this research project is not being carried out by a member of the organization, thus removing the possible threat of reprisal.

To assess the performance level of this hospital, performance data will be collected from the hospital's central headquarters in Washington, D.C. Objective data will include such economic indicators as patient unit costs, costs of prescriptions, x-ray costs, and others. This information will be combined with subjective data such as accreditation and medical audit reports. By comparing objective findings with like data on file for other hospitals, a comparative analysis can be made. In addition, by interpreting subjective ratings, general conclusions can be made concerning the overall performance level of the hospital. As noted in the fifth hypothesis, the performance level of the organization will be related to the management system being used throughout the organization. Objective data will be collected personally by the author at the central headquarters and subjective information will be collected from the hospital's files.

### Analysis

Analysis of Reddin's "Management Style Diagnosis Test" is straightforward. Following the procedures

established in the questionnaire, perceived management styles can be determined for each participating manager. Style differences or similarities between managers can be determined by comparing dominant and supporting styles shown on each questionnaire.

Likert's "Organizational Profile Questionnaire," on the other hand, requires considerable statistical analysis. A sample of approximately 100 persons, to include middle management, supervisory, and operational personnel, was chosen to provide a sample estimator of the true mean. This sample size was based on statistical assumptions and necessary confidence levels. A sample of 100 (30 percent of the population) provides an acceptable theoretical confidence interval for the mean at the 95 percent level, a standard often used in the social sciences.

Analysis of the results will concentrate on the relationships between each of the organizational variables listed on the questionnaire. The mean and variance for each variable and the total profile will be determined. Individual scores for each set of variables will be computed and combined to form an overall score on the management system continuum postulated by Likert. Computations will be based on the following formula:

$$\text{System Score} = (\text{Mean Score}) (.20) + 1.0$$

Once individual means and variances have been determined, parameter values of the population can be computed

for each of the eight factors and confidence intervals for each variable stated. The Pearson product-moment correlation coefficient will then be used to analyze the relationships between the variables.

As noted previously, the "Organizational Climate Questionnaire" measures eight specific properties of the organizational environment. The sample population selected for Likert's questionnaire will also be used to obtain a measurement of these properties. Mean and variance values will be computed for each of the climate properties listed on the questionnaire. Interscale relationships will be determined using the Pearson coefficient.

Relationships between the "Profile" variables and "Climate" scale factors will be determined by using the Pearson coefficient. Lastly, an overall correlation index will be computed for the combined "Profile" variables and "Climate" scale factors using canonical analysis.

As noted previously, data from these questionnaires, along with organizational performance data, will allow conclusions to be drawn for the acceptance or rejection of each hypothesis.

#### Limitations

The analysis and conclusions of this study are subject to several limitations arising, primarily, from the organization selected, time factors, and the techniques used for collection and analysis of the required data.

Hospitals should rightfully be measured by the quality of the medical care they dispense. Performance data based on costing information is only a measure of the efficiency with which this care is dispensed and is not a measure of the care itself. Although various reports may be referenced concerning the quality of care, these are subjective evaluations and, although very useful, are not absolute measures of performance. Valid performance data are difficult to derive in service oriented institutions. This is equally true in government hospitals. Performance data can serve only as an indication of the quality of medical care given to patients.

A second limitation is that survey data will be collected at one point in time, presenting a static picture of the organization. No attempt will be made to account for dynamics in style or climate.

In terms of the survey instruments involved, ambiguity in the questions asked in the questionnaires may arise. Although this limitation may have been somewhat reduced by the use of standardized instruments, it may still exist to the degree that hospital terminology differs from that used in other organizational structures. In addition, respondents may feel they are being tested and may attempt to cover up their true feelings. Thus, results may be altered to the degree that some individuals perceive the questions as threatening.



Implicit in the theoretical structure of this study is the idea that the managerial style of top management is a key factor in the determination of the management system and organizational climate and performance. Other factors such as technology, organization structure, and social structure are essentially taken as given. In this regard, caution must be observed in interpreting correlation coefficients. A correlation between the management system and organizational climate, for example, does not infer a cause and effect relationship. The fact that a relationship exists is not proof that a given system is the cause of a given climate. Other factors of the internal or external environment may also be contributing to the relationship. However, studies will be presented which indicate that the management system is an important factor. By studying specific variables, subtle causal relationships can be identified linking managerial behavior to the motivated behavior of the organization.

#### Organization of the Study

The content of the study is divided into five main areas: theoretical structure, setting of the study, standardized instruments and performance factors, analyses, and summary and conclusions.

The theoretical foundation for the study is developed in Chapter II. Research studies pertinent to the relationships between top management style, the management system, organizational climate, and individual and organizational

performance will be cited.

Chapter III provides the organizational setting in which the theory presented in Chapter II will be tested. The unique attributes of hospitals in general will be examined including goals and objectives of hospitals, effects of technology, organizational structure, the role system, and other pertinent factors. In addition, the characteristics of the study hospital will be examined including its goals, structure, and measures of performance.

Chapter IV represents the initial analytical portion of the study. Focusing on the management system in the hospital, the chapter deals first with the managerial style of the hospital's top management and, second, with the management system as perceived by hospital personnel.

Following the sequence presented earlier, Chapter V is concerned with organizational climate and its relationship to individual motivation. The purpose of the initial discussion is to relate various forms of organizational climate to specific types of motivation that are aroused in a particular climate. Using this discussion as a foundation, the concepts are applied to the study hospital.

Chapter VI, in turn, deals with organizational performance. In this regard, a judgment will be made concerning the overall effectiveness of the organization, that is, how successful has the hospital been in effectively utilizing its resources to accomplish the patient care objective.

The concluding chapter will serve as something more than a basic summary of the previous material. In this chapter, aspects of top management style, the management system, and organizational climate and performance will be interrelated and suggestions will be made toward improving organizational performance. Each hypothesis will then be concisely answered based on specific findings in the study. Lastly, recommendations for future research will be made and the study will close with some concluding and summarizing remarks.

## CHAPTER II

### A BEHAVIORAL THEORY OF THE ORGANIZATION

#### Introduction

The purpose of this chapter is to establish the theoretical foundations on which the remainder of the study is based. The overall objective is to develop a network of relationships from which generalizations may be made concerning the impact that differing management systems have on the organization.

A poor theory leads to idle speculation, inaction, or impractical proposals. A sound theory clearly shows how things are related and how and when the relationship changes. Sound management theories are intended to clarify, not to mystify. They are designed to make sense out of what may appear to be a confusing situation.<sup>1</sup> The intent here is to propose a sound theory of management behavior within an organization.

In the interdisciplinary fields variously known as organizational theory and organizational behavior, the

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<sup>1</sup>William J. Reddin, Managerial Effectiveness (New York: McGraw-Hill Book Company, 1970), p. vii.

distinction between individual unit data and aggregate unit data is often blurred. It is not surprising that psychologists gather data on an individual unit and that sociologists, economists, operations researchers, and others gather data on an aggregate unit level.<sup>2</sup> But as Schein points out, we cannot understand the psychological dynamics if we look only to the individual's motivations or only to organizational conditions and practices. The two interact in a complex fashion requiring us to develop theories and research approaches which can deal with systems and interdependent phenomena.<sup>3</sup> It is necessary, therefore, to construct a model of the management system which accounts for both the individual's motivations and the organizational environment.

#### Foundation of the Management System

The postulate that behavior is a function of the interaction of an organism and its environment, is widely accepted.<sup>4</sup> Therefore, to understand and more accurately predict performance, it is necessary to take into account not only individual aptitudes but also the situational variables

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<sup>2</sup>William M. Evan, "A Systems Model of Organizational Climate," in Organizational Climate, ed. by Renato Tagiuri and George H. Litwin (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968), p. 107.

<sup>3</sup>Edgar H. Schein, Organizational Psychology (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), p. 65.

<sup>4</sup>Reddin, Managerial Effectiveness, p. 145.

under which the performance takes place.<sup>5</sup> McGregor presents the expression

$$P = f(I_{a,b,c,d\dots} E_{m,n,o,p\dots})$$

indicating that "the performance (P) of an individual at work in an organization is a function of certain characteristics of the individual (I), including his knowledge, skills, motivation, attitudes, and certain aspects of his environment (E), including the nature of his job, the rewards associated with his performance, and the leadership provided him."<sup>6</sup> In other words, the way an individual carries out a given task depends upon what kind of person he is on the one hand, and the setting in which he acts on the other.<sup>7</sup> Figure 2.1 is an attempt to clarify the nature of the concepts involved. With the aid of this model, organizational behavior concepts concerning the impact of the management system can be stated. While oversimplifying the relationships, the model helps to clarify the pattern among the variables. It also provides the basic conceptual framework for further development of the study.

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<sup>5</sup>Benjamin Schneider and C. J. Bartlett, "Individual Differences and Organizational Climate II: Measurement of Organizational Climate By the Multi-Trait, Multi-Rater Matrix," Personnel Psychology, XXIII (1970), 493.

<sup>6</sup>Douglas McGregor, The Professional Manager (New York: McGraw-Hill Book Company, 1967), p. 5.

<sup>7</sup>Renato Tagiuri, "The Concept of Organizational Climate," in Organizational Climate, ed. by Renato Tagiuri and George H. Litwin (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968), p. 11.

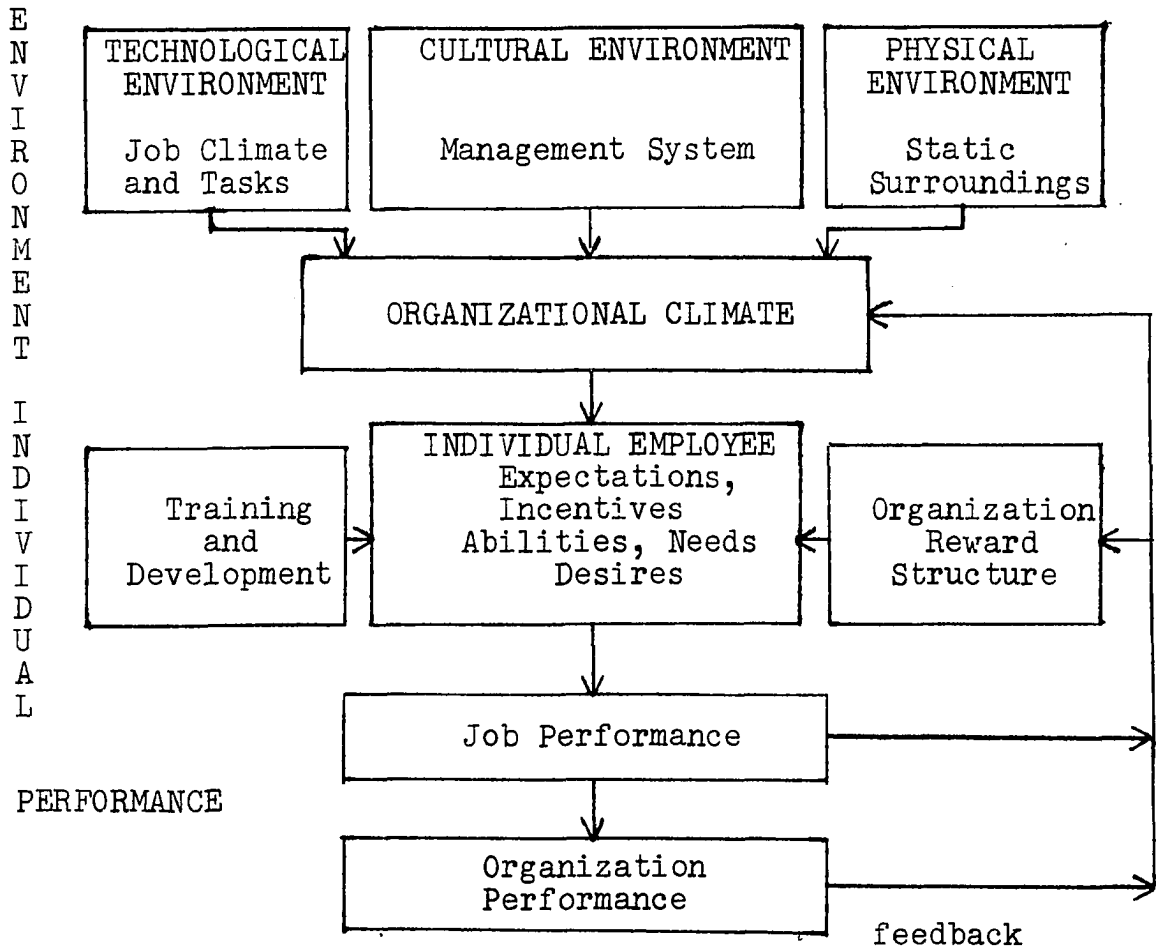


Fig. 2.1.--A conceptual model of the management system and its impact on the organization

Explanation of the overall relationships in the model can best be accomplished in a systems framework by identifying the input, process, and output elements.<sup>8</sup> The input to the model is represented by the environment. Previous models proposed by Lawrence and Lorsch, Likert, and Woodward are related to Homan's model in which the environment is viewed as having three parts: a physical environment, a cultural

<sup>8</sup>Evan, "A Systems Model," p. 111.

environment, and a technological environment.<sup>9</sup> For purposes of this study, the interest is on the cultural environment and, more specifically, the management system. As shown by Fig. 2.1, the management system is represented as a key aspect of the cultural environment.

It should also be noted that the three environmental inputs (technological, cultural, and physical) combine to affect organizational climate. Organizational climate, then, constitutes the environment (E) which McGregor cites as a factor of performance.

The individual's expectations, incentives, abilities, needs, and desires are also factors which combine to determine how the individual functions on the job. The training he receives and the rewards obtained (either tangible or intangible) are additional factors which contribute to the individual's behavior on the job. In terms of the model, the individual reacts to the input (environment) with a given response (behavior). The individual represents the process element in a systems framework.

While morale, satisfaction, and personal growth are important in terms of organizational effectiveness, the total organization is judged in terms of output. In other words, the performance of the organization is normally defined in terms of its major assignment. In the model, the

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<sup>9</sup>Litwin and Stringer, Organizational Climate, p. 35.



output element is related to organizational performance. Next, how successful the organization is in accomplishing its overall objectives affects the entire character of the system. This aspect of the model is represented by feedback.

Any effort to study a single system requires that the observer arbitrarily establish the boundaries of his vision and assert that this much and this much only will he accept as being within that system.<sup>10</sup> It is not necessary to specify all the constituents of the model used in analyzing a particular phenomenon; only the basic elements of analysis need be stated.<sup>11</sup> The function of this model is to integrate the basic elements of analysis (the management system and organizational climate and performance) by focusing on their interrelationships in order to generate understanding of behavior. As noted by Emshoff, one of the keys to successful implementation of a behavioral research program lies in the strategy used to segment the problem and to introduce new factors sequentially.<sup>12</sup> The plan here is to take this approach. In order to focus on detailed interrelationships, each phase of the model will be introduced sequentially.

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<sup>10</sup>John A. Beckett, Management Dynamics: The New Synthesis (New York: McGraw-Hill Book Company, 1971), p. 163.

<sup>11</sup>Evan, "A Systems Model," p. 114.

<sup>12</sup>James R. Emshoff, Analysis of Behavioral Systems (New York: The Macmillan Company, 1971), p. 77.

### The Management System

As was noted in Chapter I, the management system is the generalized, overall management style which organization members perceive being used throughout the total organization. In the discussion that follows, interest centers on the influence which top management exerts over the management system and on the characteristics of an effective management system.

#### Top Management and the Management System

The character of an organization whether dynamic, forceful, initiating and risk-taking or mechanical, repetitive, conservative, dull, aimless, or backward-looking, is established at the top.<sup>13</sup> Organization structure and policy, for example, are established by top management. Once established, they set limits on the behavior patterns which will be acceptable within the organization.<sup>14</sup> In short, top management determines the nature and character of the management system. Likert notes that managerial styles in an organization seem to display a remarkably consistent set of interrelationships.<sup>15</sup> This reflects a natural tendency toward "organizational homogenization" which a previous generation

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<sup>13</sup>Robert R. Blake and Jane S. Mouton, Building a Dynamic Corporation Through Grid Organization Development (Reading, Mass.: Addison-Wesley Publishing Company, 1969), p. 35.

<sup>14</sup>Douglas McGregor, The Human Side of Enterprise (New York: McGraw-Hill Book Company, 1960), p. 183.

<sup>15</sup>Likert, The Human Organization, p. 116.

of observers lamented as conformity but which we know today is simply the result of the ways in which managers are selected and of their facility in learning the ropes.<sup>16</sup>

#### Supporting Research

In a study of the Weldon Plant of Harwood Manufacturing Company, Likert found that at each level in the company, managers apparently felt pressure to manage in the style of their superiors.<sup>17</sup> This finding, shown also in other studies (which are summarized by Likert), reflects, no doubt, the pressure each manager feels from his own superior to behave as he feels his superior wishes him to behave in dealing with his subordinates.<sup>18</sup> Because of the restraints imposed by their immediate superiors and by higher echelons, many managers at middle and lower levels do not deviate from the prevailing management style of the firm even though they, themselves, believe that better performance would be achieved if they did.<sup>19</sup> These results are not surprising since it is the ultimate responsibility of top management to direct, guide, and control the management system.

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<sup>16</sup>Saul W. Gellerman, Management by Motivation (American Management Association, Inc., 1968), p. 226.

<sup>17</sup>Likert, The Human Organization, pp. 45-46.

<sup>18</sup>Ibid., p. 46.

<sup>19</sup>Ibid.

In examining the importance of first-line supervision, Argyle and his colleagues, after surveying the literature and making their own independent studies, concluded that differences in productivity in work groups resulting from contrasting methods of direct supervision were typically small, usually not larger than 15 percent of the total output.<sup>20</sup> Homans notes that this figure may come as a shock to many Americans because 15 percent is not a really big difference. He goes on to note that these results imply that perhaps we are wrong in focusing on first-line supervisors. The behavior of the foreman alone may not make much specific difference, and yet the behavior of total supervision, of the whole of management, may make a very great difference indeed. From these results he concludes, "If I had to choose, I should say that top management made more difference to production than any other single factor."<sup>21</sup>

Bowers and Seashore, reporting on data from a study of 40 agencies of one of the leading life insurance companies, conclude that "these data appear to confirm that there is, in fact, a significant and strong relationship between managerial and peer leadership characteristics."<sup>22</sup> As

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<sup>20</sup>Michael Argyle, Godfrey Gardner, and Frank Ciofi, "Supervisory Methods Related to Production, Absenteeism and Labor Turnover," Human Relations, XI (1958), 23-40.

<sup>21</sup>Robert Dubin, George C. Homans, Floyd C. Mann, and Delbert C. Miller, Leadership and Productivity (San Francisco: Chandler Publishing Company, 1965), p. 58.

<sup>22</sup>David G. Bowers and Stanley Seashore, "Predicting

Gellerman notes, "despite mavericks, however, there will ordinarily be a mainstream or typical managerial style which characterizes, at least in an approximate way, the actions of most managers in an organizational unit."<sup>23</sup> The effect of top management is to make the management system internally consistent.

Similarly, Sykes reported that supervisors who had been trained in a program emphasizing human relations and group participation became very frustrated when their organization refused to adapt to their new human relations view. The top executives seemed unwilling to practice themselves what they had encouraged their subordinates to learn. As a result, a group that had previously been highly successful, from the organization's point of view, became highly dissatisfied, and a large percentage of these men left the organization. Prior to the training program there had been almost no turnover within this group.<sup>24</sup>

The studies cited serve to emphasize the important influence top management exerts over the management system. Allowing that the leaders of the organization do set the pattern for other managers to follow, the next important

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Organizational Effectiveness With a Four-Factor Theory of Leadership," Administrative Science Quarterly, XI (1966), 258.

<sup>23</sup>Gellerman, Management by Motivation, p. 226.

<sup>24</sup>Walter R. Nord, Concepts and Controversy in Organizational Behavior (Pacific Palisades, Calif.: Goodyear Publishing Company, 1972), p. 540.

relationship which must be considered is the type management system that produces organizational excellence. In more specific terms, the position of various theorists must be examined concerning the "managerial style" that characterizes an effective management system.

### Managerial Style and the Management System

For centuries writers have been intrigued with the idea of specifying predictable relationships between what an organization's leaders do and how the organization fares.<sup>25</sup> For many years the most common approach to managerial behavior concentrated on leadership traits, suggesting that there were certain qualities that were essential for effective leadership.<sup>26</sup> The weakness of this approach is that there is no agreement on the best traits that fit all situations or that one group of traits is superior to another.<sup>27</sup> More recently the focus has turned from the topic of traits to managerial styles. In this regard, differences have developed in terms of an "ideal style" of management versus a "situational style" of management.

Those advocating that there is one managerial style which is superior to others include Likert, McGregor,

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<sup>25</sup>Bowers and Seashore, "Predicting Organizational Effectiveness," p. 238.

<sup>26</sup>Paul Hersey and Kenneth H. Blanchard, Management of Organizational Behavior (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969), p. 60.

<sup>27</sup>Reddin, Managerial Effectiveness, p. 20.

Argyris, and Blake and Mouton. Those supporting a situationalist theory are represented by such authors as Reddin, Schein, Hersey and Blanchard, Feidler, and Schmidt and Tannenbaum.

#### An ideal management style?

In recent years there has been considerable research by some authors concerning the relation between high individual and organizational performance and a preferred managerial style or attitude. The implication of their research is that the ideal and most productive leader behavior for industry is employee-centered or democratic.<sup>28</sup> These authors are prescriptive because they attempt to spell out the managerial and supervisory style and the supervisory practices which will result in a viable organization.<sup>29</sup> One of the principal proponents, Likert, states that this "ideal model" may sound completely unattainable, but this does not appear to be the case. There is impressive evidence supporting the view that this ideal can be approximated, if not fully reached, in actual operations in any organization.<sup>30</sup>

This ideal model calls for a relationship between

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<sup>28</sup>Hersey and Blanchard, Management of Behavior, p. 70.

<sup>29</sup>John P. Campbell, Marvin D. Dunnette, Edward E. Lawler, III, and Karl E. Weick, Jr., Managerial Behavior, Performance, and Effectiveness (New York: McGraw-Hill Book Company, 1970), p. 46.

<sup>30</sup>Rensis Likert, New Patterns of Management (New York: McGraw-Hill Book Company, 1961), p. 176.

the superior and the subordinate that is supportive and ego building.<sup>31</sup> The principle of supportive relationships can best be carried out by a manager who exercises a participative style of management.<sup>32</sup> Other styles of management are less effective because they are based on economic needs and rely on coercive, punitive measures. This management produces apathy or hostility in the subordinate toward both the superior and the organization and its objectives.<sup>33</sup>

McGregor felt that managerial assumptions about human nature and human behavior were all-important in determining the manager's style of operating. Managers who accepted the Y image of human nature would not structure, control, or closely supervise the work environment. To McGregor, the most effective manager would attempt to aid the maturation of subordinates by giving them wider latitude in their work, encouraging creativity, using less external control, encouraging self-control, and motivating through the satisfactions which came from the challenge of work itself. This integration of the individual and the

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<sup>31</sup>Likert, The Human Organization, p. 47. Likert considers the term "supportive relationships" to be a key word in his theoretical structure. He explains it by saying, "Experiences, relationships etc., are considered to be supportive when the individual involved sees the experience (in terms of his values, goals, expectations and aspirations) as contributing to or maintaining his sense of personal worth and importance."

<sup>32</sup>Likert, New Patterns of Management, p. 100.

<sup>33</sup>Likert, The Human Organization, p. 159.



organization would be best accomplished by an active and responsible participation of the individual.<sup>34</sup> In McGregor's own words:

The effective use of participation is a consequence of a managerial point of view which includes confidence in the potentialities of subordinates, awareness of management's dependency downwards, and a desire to avoid some of the negative consequences of emphasis on personal authority. It is consistent with theory Y--with management by integration and self-control. It consists basically in creating opportunities under suitable conditions for people to influence decisions affecting them.<sup>35</sup>

Argyris has built his case on the conflict between the needs of the healthy personality and the requirements of the formal organization. Argyris seeks, in his proposals for designing organizations, to reduce this incongruency and to achieve harmony between the personality and the organization.<sup>36</sup> He advises management to give employees a variety of experiences, to challenge them by giving them more responsibility, and to rely more on employee self-direction and self-control. Participative, employee-centered leadership decreases feelings of apathy, dependence, and submissiveness and helps the individual achieve self-actualization, while helping the organization meet its goals.<sup>37</sup>

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<sup>34</sup>Daniel A. Wren, The Evolution of Management Thought (New York: The Ronald Press, 1972), pp. 450-451.

<sup>35</sup>McGregor, The Human Side, p. 126.

<sup>36</sup>Wren, Evolution of Management, pp. 446-448.

<sup>37</sup>Ibid.

The Managerial Grid approach of Blake and Mouton was initially an attempt to avoid the extreme either/or styles of leadership, such as either scientific management or human relations, production-centered or people-centered, and even Theory X or Theory Y, by showing the possibilities of various blends of leadership styles.<sup>38</sup> However, the Managerial Grid also implies that the most desirable leader behavior is "team management." Blake and Mouton have developed training programs to change managers toward a 9-9 management style. Wren notes that, in this respect, the grid largely reflects the urgings of other organizational humanists to build teamwork, self-direction and control, and to get commitment from participants.<sup>39</sup>

According to this view, then, an organization in which managerial style is participative, democratic, and unstructured will differ from one whose practice is non-participative, authoritarian, or structured. Productivity and employee satisfaction will be higher when managerial behavior is supportive. This ideal style calls for participative leadership because such a leader participates or consults with his subordinates concerning decisions that will affect them or decisions that they will have to carry out.<sup>40</sup>

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<sup>38</sup>Ibid., p. 457.

<sup>39</sup>Ibid., p. 460.

<sup>40</sup>Alan C. Filley and Robert J. House, Managerial Process and Organizational Behavior (Glenview, Illinois: Scott, Foresman and Company, 1969), p. 394.

## Supporting research

Beyond the classic studies of Mayo, Roethlisberger and Trist, there are several strands of research evidence which are consistent with those authors favoring an ideal managerial style.<sup>41</sup> The antecedent experiment is the classic Lewin, Lippitt, and White study which used eleven-year-old boys as subjects. This study compared the effects of autocratic, democratic, and laissez-faire leadership on group productivity. In terms of the number of tasks accomplished, the autocratic and democratic groups were very similar; however, productivity in the autocratic groups dropped off as soon as the leader left the room. The democratic groups did not require such close "managerial control."<sup>42</sup>

A particularly important study in the analysis of leadership practices was that by French and Coch in which the effects of employee participation in a decision affecting them were measured. Four groups were involved: (1) a control group, which was simply given the new techniques and ordered to comply; (2) an experimental group, which elected two members to confer with management and help work out the details of the change; and (3) two other experimental groups, which participated in making decisions regarding the change. There were large differences in post change productivity in favor of the two full-participation groups. Productivity in

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<sup>41</sup>Schein, Organizational Psychology, p. 52.

<sup>42</sup>Campbell, et al., Managerial Behavior, p. 419.

the control group stayed below pre change levels, and 17 percent of the group quit during the first month after the change. The "representation" group was closer to the full-participation groups than to the control group.<sup>43</sup> This study has been the cornerstone of theory concluding that worker participation is desirable for efficiency reasons and for improvement of output levels.<sup>44</sup>

One of the most comprehensive studies supporting the beneficial effects of participation is reported in Marrow, Bowers and Seashore, Management by Participation.<sup>45</sup> Beginning in 1962 the authors began measuring the progress of a program designed to change a company's management system from exploitive-authoritative to participative. Marked shifts in the management system, as perceived by managers and supervisors, were revealed for a period of over two years. Using an index based on changes in the earnings of hourly workers, they found that changes in the management system resulted in substantial increases in productivity. They noted that from January, 1962 to March, 1964 productivity increased 26 percent and that it has continued to increase since that time.<sup>46</sup> The chairman of the board of directors

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<sup>43</sup>Ibid.

<sup>44</sup>Dubin, Homans, Mann, and Miller, Leadership and Productivity, p. 39.

<sup>45</sup>See Alfred J. Marrow, David G. Bowers and Stanley E. Seashore, Management by Participation (New York: Harper and Row, Publishers, 1967).

<sup>46</sup>Likert, The Human Organization, p. 37.

of the company is quoted by Likert as saying, "The increases in earnings were a result of heightened motivation and improved managerial skills."<sup>47</sup>

Correlative data from the Michigan studies also provide support for the participation-productivity relationship. In the Katz, Maccoby, and Morse study of work groups in an insurance company, supervisors of low producing groups described themselves as supervising more closely, checking up more frequently, and giving more detailed instructions.<sup>48</sup> The higher producing supervisors described their supervision in more participatory terms. In addition, there is also a considerable amount of research evidence in support of the participative approach summarized in Likert's New Patterns of Management and The Human Organization.<sup>49</sup>

#### The situationalist theory

In contrast to those advocating an ideal style, there are those who point to a situational approach to management. The "Law of the Situation" was mentioned as early as the 1920's by Mary Parker Follett.<sup>50</sup> Since then situational theory has developed through the Michigan and Ohio State

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<sup>47</sup>Ibid., p. 38.

<sup>48</sup>Campbell, et al., Managerial Behavior, p. 420.

<sup>49</sup>See especially Chapters 2 and 3 in New Patterns of Management and more recent studies in Chapters 3 and 4 in The Human Organization.

<sup>50</sup>Reddin, Managerial Effectiveness, p. 20.

leadership studies. In 1945 the Institute for Social Research at the University of Michigan began a series of empirical studies in a variety of organizations to determine the leadership characteristics that resulted in the highest productivity and greatest job satisfaction. Over a period of years, this research led to the identification of two different leadership orientations: (1) an employee orientation in which the supervisor stressed interpersonal relationships on the job; and (2) a production orientation in which the supervisor focused on getting out production and was more concerned with the technical aspects of the job.<sup>51</sup>

Chronologically parallel to the Michigan studies, the Ohio State University Bureau of Business Research began a series of investigations which would lead to the development of a "situation" approach to leadership. Relying heavily on sociometric techniques, the researchers explored members' perceptions of the organization and effective leader behavior in various group situations. The Ohio State findings put forth a two dimensional view of leadership: (1) an initiating structure dimension in which the leader acted to further the work objectives of the group and (2) a consideration dimension in which the emphasis was on the needs of the followers and upon interpersonal relationships.<sup>52</sup>

Drawing on the Michigan and Ohio State studies,

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<sup>51</sup>Wren, Evolution of Management, p. 336.

<sup>52</sup>Ibid., pp. 336-337.

Blake and Mouton popularized these concepts by expanding the two dimensional approaches to account for a "grid" of possible leader behavior. Authors such as Reddin and Hersey and Blanchard have built on this structure. They take the position that combinations of managerial leadership behavior may be rated as effective or ineffective based on the context of the situation in which they are applied. This view is, perhaps, best summarized by Reddin himself.

A manager should not simply respond to situations but also should manage them. A manager should see all situations as opportunities for situation management, that is, opportunities to so arrange the situation that all elements work with, rather than against, each other. Career success is not best explained as a result of luck but as a result of skill used day after day--skill in reading a situation, adapting to it if appropriate, and changing it if necessary and possible. . . . The three key skills of an effective manager may be logically described as situational sensitivity, style flexibility, and situational management skill.<sup>53</sup>

Expanding on this position, Schein notes that man is complex, highly variable and his needs vary from time to time and situation to situation. More specifically he points out:

Man can respond to many different kinds of managerial strategies, depending on his own motives and abilities and the nature of the task; in other words, there is no one correct managerial strategy that will work for all men at all times.<sup>54</sup>

Schein notes the important implications for the individual manager. He summarized this aspect as follows:

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<sup>53</sup>Reddin, Managerial Effectiveness, pp. 134-135.

<sup>54</sup>Schein, Organizational Psychology, p. 60.

Perhaps the most important implication is that the successful manager must be a good diagnostician and must value a spirit of inquiry. If the abilities and motives of the people under him are variable, he must have the sensitivity and diagnostic ability to be able to sense and appreciate the differences. Second, rather than regard the existence of differences as a painful truth to be wished away, he must also learn to value difference and to value the diagnostic process which reveals differences. Finally, he must have the personal flexibility and the range of skills necessary to vary his own behavior. If the needs and motivations of his subordinates are different, they must be treated differently.<sup>55</sup>

Hersey and Blanchard note that successful leaders can adapt their leader behavior to meet the needs of the group and of the particular situation.<sup>56</sup> Similar sentiments are presented by Tannenbaum and Schmidt who state that a manager should consider three forces in deciding how to manage: (1) forces in the manager (his value system, his confidence in his subordinates, his own leadership inclinations, his feelings of security in an uncertain situation); (2) forces in the subordinate (the subordinate's needs for independence and responsibility, his tolerance for ambiguity, interest in the problem, identity with the organization, knowledge and experience, expectations); and (3) forces in the situation (type of organization, group effectiveness, the problem itself, the pressure of time). The strength of each force will, of course, vary from instance to instance, but the manager who is sensitive to them can better assess

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<sup>55</sup>Ibid., p. 61.

<sup>56</sup>Hersey and Blanchard, Management of Behavior, pp. 79-80.



the problems which face him and can determine which mode of leadership behavior is most appropriate for him.<sup>57</sup>

The situationalists, therefore, believe that managerial style is multidimensional. These dimensions are finite in number and vary according to leader personality, the requirement of the task to be performed by him and his followers, the attitudes, needs, and expectations of his followers, and the organizational and physical environment in which he and they operate.<sup>58</sup>

#### Supporting research

There is substantial justification for the situation-  
alists' position based on some specific research findings.  
In a study of a large trucking company, Vroom and Mann found  
that the nature of the job being performed influenced the  
workers' preference for the type of supervision.<sup>59</sup> Package  
handlers whose work was highly interdependent showed a pref-  
erence for employee-centered supervision; truck drivers and  
dispatchers whose work was highly individual and independent  
preferred a more production-centered, authoritarian approach.

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<sup>57</sup>Robert Tannenbaum and Warren H. Schmidt, "How to Choose a Leadership Pattern," Harvard Business Review, XXXVI (March-April, 1958), 95-101.

<sup>58</sup>Filley and House, Managerial Process, p. 397.

<sup>59</sup>V. H. Vroom and F. C. Mann, "Leader Authoritarianism and Employee Attitudes," Personnel Psychology, XIII (1960), 125-140.

Vroom also found that the individual worker's personality affects his preference for, and response to, the type of supervision.<sup>60</sup> Those men who were themselves dependent, authoritarian types preferred that sort of supervision and responded well to it; those men who were highly independent were more productive when they were allowed to participate in decisions by more employee-centered supervisors.<sup>61</sup>

Both Pearlin and Argyris, in studying the alienation of workers in typical industrial organizations, found cases of workers who were not alienated. Their personal needs and predispositions made them comfortable in a highly authoritarian situation which demanded little of them, either because they did not seek challenge and autonomy or because they genuinely respected authority and status.<sup>62</sup> A similar finding was reported by Tannenbaum.<sup>63</sup> He found that dependent subordinates reacted negatively to an increase in participation.

In 1960, French, Israel, and Aas published an account of an experiment conducted in Norway. They found that the effects of participation or of any other style probably depends, to a large degree, on the workers expectations

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<sup>60</sup>Schein, Organizational Psychology, p. 55.

<sup>61</sup>Ibid., p. 62.

<sup>62</sup>Ibid.

<sup>63</sup>A. S. Tannenbaum, "The Relationship Between Personality and Group Structure" (Unpublished Ph.D. dissertation, Syracuse University, 1953).

about how they should be treated. Some would welcome participation and some would not.<sup>64</sup>

The studies cited are just a sample of numerous studies published which show that the most effective managerial style that can be adopted by a manager depends on technology, the people, and the organizational situation.<sup>65</sup>

#### A Need to Examine Additional Factors

To summarize the discussion of the management system to this point, there is considerable evidence that top management exerts an important influence over the management system by setting the pattern for other managers to follow. There is conflicting evidence, however, as to the managerial style that should characterize an effective management system.

The main issue here is not a matter of choosing one management system over another. What matters is whether management's style of managing creates an appropriate climate for its people to operate in; appropriate in the sense of encouraging behavior that ultimately benefits the organization.<sup>66</sup> The crucial point is that the way an employee

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<sup>64</sup>J. R. P. French, Jr., J. Israel, and D. Aas, "An Experiment on Participation in a Norwegian Factory," Human Relations, XIII (1960), 3-19.

<sup>65</sup>Both Filley and House, Managerial Process, pp. 408-414 and Campbell, et al., Managerial Behavior, pp. 418-441, provide excellent summaries and discussions of studies that pertain to this subject.

<sup>66</sup>Gellerman, Management by Motivation, p. 222.

perceives and understands his total climate is an important determinant of his response.<sup>67</sup> The question as to how the environment and more specifically organizational climate, affects individual behavior needs to be examined if either the ideal or situationalist's positions are to have significance.<sup>68</sup>

This, then, brings us to consider organizational climate as the next sequential step in the model presented earlier in the chapter. The concept of organizational climate will provide a useful bridge between theories of individual motivation and behavior on the one hand and the management system on the other.<sup>69</sup>

### Organizational Climate

When students of human behavior attempt to deal systematically with the concept of organizational climate, they soon discover some obstacles in relating it to organizational behavior. It is somewhat difficult, for example, to state precisely the dimensions of organizational climate. Once these climate factors are specified, it must be shown how they can be varied to produce desired individual behavior patterns for members of the organization as a whole. The

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<sup>67</sup>Burt K. Scanlan, Results Management in Action (2d ed.; Burlington, Mass.: Management Center of Cambridge, 1969), p. 21.

<sup>68</sup>Garlie A. Forehand and B. von Haller Gilmer, "Environmental Variation in Studies of Organizational Behavior," Psychological Bulletin, LXII (1964), 369.

<sup>69</sup>Litwin and Stringer, Organizational Climate, p. 5.

discussion begins by noting the various dimensions of organizational climate and becomes increasingly more specific in relating these dimensions to Litwin and Stringer's precise definition and concept of organizational climate.

Forehand and Gilmer feel that climate consists of a set of characteristics that describe an organization, distinguish it from other organizations, are relatively enduring over time, and influence the behavior of the people in it.<sup>70</sup> Georgopoulos speaks of normative structure of attitudes and behavioral standards which provide a basis for interpreting the situation and act as a source of pressure for directing activity.<sup>71</sup> Meyer suggests that climate arises as the result of the style of management, the organization's policies, and its general operating procedures.<sup>72</sup> Gellerman feels that goals and tactics of the men whose attitudes "count" are a significant determinant of climate.<sup>73</sup>

When organizational climate is described in this way, it can be seen that many kinds of organizational factors are potentially relevant contributors. The crucial elements,

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<sup>70</sup>Forehand and Gilmer, "Environmental Variation," p. 362.

<sup>71</sup>Basil S. Georgopoulos, "Normative Structure Variables and Organizational Behavior," Human Relations, XVIII (1965), 115-170.

<sup>72</sup>Herbert H. Meyer, "Achievement Motivation and Industrial Climates," in Organizational Climate, ed. by Renato Tagiuri and George H. Litwin (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968), p. 151.

<sup>73</sup>Gellerman, Management by Motivation, p. 225.

however, seem to be the individual's perception of relevant stimuli--constraints and reenforcement contingencies that govern his job behavior.<sup>74</sup> The basic data used by a number of investigators to organize a taxonomy of climate factors are individual perceptions of organizational properties.

#### Properties of Organizational Climate

Campbell, Dunnette, Lawler and Weick suggest that one way to get a firmer grasp on the concept of organizational climate is to consider some potential properties of climate.<sup>75</sup> Schneider and Bartlett found that after factor analyzing 299 items describing various characteristics of two different insurance companies, there were six primary climate factors: (1) managerial support--taking an active interest in agents; (2) managerial structure--requiring adherence to budgets and other control devices; (3) concern for new employees; (4) intra-agency conflict--undercutting managerial authority; (5) agent independence--freedom given to agents; (6) general satisfaction--agents' expressions of satisfaction.<sup>76</sup>

In a study by Kahn, Wolfe, Quinn, Snoek, and Rosenthal, 36 questions were factor analyzed and five factors seemed to emerge: (1) rules orientation--the degree to which company-oriented rules are followed; (2) the nurturance

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<sup>74</sup>Campbell, et al., Managerial Behavior, p. 390.

<sup>75</sup>Ibid.

<sup>76</sup>Schneider and Bartlett, "Individual Differences," pp. 323-333.

of subordinates--taking an interest in them; (3) closeness of supervision; (4) universalism--the degree to which the individual should identify with the organization as a whole; and (5) promotion-achievement orientation.<sup>77</sup>

Campbell, et al. note that in all the studies reviewed by them, at least four climate properties are common across all the investigations: (1) individual autonomy--the freedom of the individual to be his own boss and to reserve considerable decision-making power for himself: his not being constantly accountable to higher management; (2) the degree of structure imposed upon the position--the degree to which the objectives and methods of the job are established and communicated to the individual superiors; (3) reward orientation--these factors do not hang together quite as well as the previous two groups and seem to vary a great deal in breadth; however, the reward element appears to be present in all; (4) consideration, warmth, and support--the support and stimulation received from one's superior.<sup>78</sup>

#### A Specific Definition

Based on this background, the concepts of climate as presented by Litwin and Stringer most adequately contribute to the theoretical structure being developed here. By adhering to a specific meaning, the concept of organizational

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<sup>77</sup>Campbell, et al., Managerial Behavior, p. 392.

<sup>78</sup>Ibid., p. 393.

climate can be more clearly understood.

Organizational climate refers to the quality of the internal environment, especially as experienced by the insider.<sup>79</sup> It refers to the perceived, subjective effects of the formal system, the informal "style" of managers, and other important environmental factors, attitudes, beliefs, values, and motivations of people who work in a particular organization.<sup>80</sup>

Referred to in this way, the concept of climate describes a set or cluster of expectations and incentives and represents a property of the environment that is perceived directly or indirectly by individuals in the environment.<sup>81</sup> This property can be measured by the following scale factors:

1. Structure--the feeling that employees have about the constraints in the group: how many rules, regulations, procedures there are; is there an emphasis on "red tape" and going through channels or is there a loose and informal atmosphere.
2. Responsibility--the feeling of being your own boss; not having to double-check all your decisions; when you have a job to do, knowing that it is your job.
3. Reward--the feeling of being rewarded for a job well done; emphasizing positive rewards rather than punishments; the perceived fairness of the pay and promotion policies.
4. Risk--the sense of riskiness and challenge in the job and in the organization; is there an emphasis on taking calculated risks or is playing it safe the best way to operate.

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<sup>79</sup>Tagiuri, "Organizational Climate," p. 26.

<sup>80</sup>Litwin and Stringer, Organizational Climate, p. 5.

<sup>81</sup>Ibid., p. 29.



5. Warmth--the feeling of general good fellowship that prevails in the work group atmosphere; the emphasis on being well-liked; the prevalence of friendly and informal social groups.
6. Support--the perceived helpfulness of the managers and other employees in the group; emphasis on mutual support from above and below.
7. Standards--the perceived importance of implicit and explicit goals and performance standards; the emphasis on doing a good job; the challenge represented in personal and group goals.
8. Identity--the feeling that you belong to an organization and you are a valuable member of a working team; the importance placed on this kind of spirit.<sup>82</sup>

These are properties not of individuals but of environments. Specific individuals may perceive these properties differently; however, a significant overall environmental effect remains.<sup>83</sup> More importantly, they are measurable properties of the environment.

#### The Management System and Organizational Climate

It has been stated previously that the leaders of the organization significantly influence the management system used throughout the organization. What has not been shown, however, is that the management system which the organization adopts is a prime determinant of the climate that exists in the organization.

Townsend has made the point that you can't motivate people. That door is locked from the inside. You can create a climate in which most of your people will motivate

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<sup>82</sup>Ibid., pp. 81-82.

<sup>83</sup>Campbell, et al., Managerial Behavior, p. 386.

themselves to help the organization reach its objectives.<sup>84</sup>

Scanlan makes a similar point, noting:

The idea that motivation is a personal thing and that it must be generated within the man himself is not new. In a strictly technical sense, a manager can't motivate anybody. What he can do, however, is to create a climate which will trigger and point in the right direction the motivation potential that is already there. . . . The challenge of the manager is to build into the job climate and his own approach to leadership those incentives which will trigger the latent potential.<sup>85</sup>

Thus, the key to getting maximum effort and efficiency from an employee is to create a climate where he has something to get excited about besides the money.<sup>86</sup> There are a number of ways this can be done. The emphasis that the system puts on adherence to rules, the kinds of goals and standards that are set, and, perhaps most important, the nature of the informal relationships and communications that exist throughout the system. All these factors will have an impact on the climate that exists in any organization. The main point is, however, that the capacity to influence the organizational climate is perhaps the most powerful leverage point in the entire management system.<sup>87</sup>

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<sup>84</sup>Robert Townsend, Up the Organization (Greenwich, Conn.: Fawcett Publications, Inc., 1970), p. 124.

<sup>85</sup>Scanlan, Results Management, pp. 2-3.

<sup>86</sup>Ibid., pp. 41-42.

<sup>87</sup>Litwin and Stringer, Organizational Climate, p. 169.

## Supporting research

Three specific research studies support the contention that the management system is indeed a prime determinant of organizational climate. First, Litwin and Stringer designed a laboratory study to test certain hypotheses regarding the influence of the management system on organizational climate. The study involved the creation of three simulated business organizations each headed by a president with a distinct style. The principal means for creating climate differences was the president of the company who was a member of the research staff and who adopted the appropriate managerial style: (1) an autocratic-structured style, with strong emphasis on careful definition of duties; (2) a democratic-friendly style, where cooperative behavior and loose structure were emphasized; and (3) an achieving style, where innovation was fostered and higher personal goals were encouraged. Managerial style was the major variable input and all other factors were controlled as carefully as possible. Significant differences in performance and satisfaction were found. The data confirmed the research hypothesis that different organizational climates could be created by influencing the managerial style input.<sup>88</sup>

A second study by Meyer conducted at two major divisions of General Electric sought to gain a better understanding of how "the system" in an organization, especially

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<sup>88</sup>Litwin and Stringer, Organizational Climate, p. 116.

as it is influenced by the manager's style or practice, affects the motivation of employees in the organization.<sup>89</sup> Using the Litwin and Stringer "Climate Questionnaire" he concluded that climate scores for each dimension appear to be a factor of the ways the two division managers operate.

Lastly, an organization climate study conducted by Greiner, Leitch, and Barnes in the Internal Revenue Service revealed that the key variable is the approach taken by top management since they are responsible, to some degree, for interpreting legal constraints, specifying task relationships, and defining job factors.<sup>90</sup>

Summarizing the model to this point, it has been noted that top management has a major influence over the management system and that the management style characterizing the management system is a prime determinant of organizational climate. The final step to complete the model is to relate how organizational climate can affect individual and organizational performance.

#### Individual and Organizational Performance

The broad objective of this final aspect of the model is to explain the behavior of individuals in terms of

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<sup>89</sup>Meyer, "Achievement Motivation," p. 154.

<sup>90</sup>Larry E. Greiner, D. Paul Leitch, and Louis B. Barnes, "Organizational Climate in a Government Agency," in Organizational Climate, ed. by Renato Tagiuri and George H. Litwin (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968), p. 218.

a theory of motivation and climate. Individual performance will then be related to the overall performance of the total organization. Many approaches to the study of behavior consider either the individual or the environment (in terms of organizational structure). Few studies attempt to explain both factors at the same time.<sup>91</sup> The model being developed here makes it possible to examine both sets of variables. It provides not only a greater understanding of the functions of the management system but also a chance to develop propositions about the individual and his environment.

#### Organizational Climate and Motivation

Theoretically, it is argued that a particular climate creates certain kinds of beliefs (expectations) about what kinds of consequences will follow from various actions. A given climate may indicate the kinds of satisfactions or frustrations that are present in a given situation.<sup>92</sup> Litwin and Stringer, for example, state that climate represents the direct determinants of motivation.<sup>93</sup> They state that climate induces (or is made up of) expectancies and incentives which interact with a variety of psychological needs to produce aroused motivation and behavior directed toward need

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<sup>91</sup>Forehand and Gilmer, "Environmental Variation," p. 379.

<sup>92</sup>Litwin and Stringer, Organizational Climate, p. 188.

<sup>93</sup>Ibid., p. 44.

satisfaction.<sup>94</sup> In other words, the climate that characterizes the work situation helps determine the kinds of worker motivation actually aroused.<sup>95</sup>

Organizational climate, then, serves as a bridge to relate the effect of the management system on the motivation of the individuals who work in organizations.

Forehand and Gilmer discuss the problem of specifying how organizational climate differences are translated to differences in behavior. They mention three mechanisms:

1. Definition of stimuli. Environmental characteristics such as the structure of an organization, the implicit theories held by its management, or the economic condition of the industry have considerable influence on the relevant stimuli which impinge on an individual in his work role.
2. Constraints upon freedom. Certain attributes of the situation may actually prevent certain behavior from occurring. The structure of the management communication or the degree of autonomy. Such structurally imposed constraints may be either deleterious or facilitative, relative to performance effectiveness.
3. Reward and punishment. Besides influencing what sorts of stimuli will be perceived and what types of responses are permitted, the environment can also specify the reinforcement contingencies for various behaviors. It seems intuitively obvious that the situation should help determine the behavior-reward contingencies in an organization.<sup>96</sup>

#### Supporting research

According to Litwin and Stringer, different climates stimulate or arouse different kinds of motivation, generate

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<sup>94</sup>Ibid., p. 111.

<sup>95</sup>Ibid., p. 169.

<sup>96</sup>Forehand and Gilmer, "Environmental Variation," pp. 363-382.

distinctive attitudes about a person's relationship with others, and strongly influence both feelings of satisfaction and performance level. They used the McClelland-Atkinson theory of motivation to test the degree to which various induced climates stimulated the need for achievement (a need to excel in relation to competitive or internalized standards), the need for power (the need for control and influence over others), and the need for affiliation (the need for warm, friendly relationships).

To identify the climate conditions that might be compatible with or foster certain kinds of individual motivation, a group of 59 Harvard MBA students were asked to describe the kind of ideal climate they would like to work in. A thematic apperception measure of motivation was administered to this same group and three motive scores were derived: (1) a measure of the strength of the need for achievement; (2) a measure of the strength of the need for affiliation; and (3) a measure of the strength of the need for power. The subjects tended to prefer climates which would arouse their dominant motives. In everyday language, we can say that people prefer climates which seem most likely to satisfy their needs.<sup>97</sup> Litwin and Stringer's conclusions were that the study supported quite strongly the initial theoretical assumption that the organizational climate

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<sup>97</sup> Litwin and Stringer, Organizational Climate, p. 76.

concept would serve as a link between organizational and individual motivational variables.<sup>98</sup>

Additional laboratory experiments were conducted by Litwin and Stringer with 45 Harvard MBA candidates. They also conducted three field studies in a large public utility, two manufacturing organizations, and two functional departments of the largest plastics manufacturer in the United States. These studies confirmed that achievement motivation, affiliation motivation, and power motivation are aroused by very different kinds of climates; that personality differences account for much of the variation of individual behavior in organizations based on the need for achievement, power, and affiliation; and that the climate which characterizes the work situation helps determine the kinds of worker motivation actually aroused.<sup>99</sup> Climates tend to mediate between the task requirements and the needs of the individual.<sup>100</sup>

In summary, Litwin and Stringer found that achievement motivation seems to be stimulated or aroused by climates that (a) emphasize personal responsibility; (b) allow calculated risks and innovation; and (c) give recognition and reward for excellent performance and create the impression that an individual is part of an outstanding and successful team.

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<sup>98</sup>Ibid., p. 92.

<sup>99</sup>Ibid., pp. 188-190.

<sup>100</sup>Ibid., p. 169.



Affiliation motivation is stimulated or aroused by climates that (a) allow the development of close warm relationships; (b) provide considerable support and encouragement for the individual; (c) provide considerable freedom and very little structure or constraint; and (d) give the individual the feeling he is an accepted member of a family group. Power motivation is stimulated or aroused by climates that (a) provide considerable structure (in the form of rules, procedures, etc.); (b) allow individuals to obtain positions of responsibility, authority, and high status; and (c) encourage the use of formal authority as a basis for resolving conflict and disagreement.

These results imply that different organizational climates can be designed to affect and arouse different motives in individuals. Yet to be shown in the model is the overall effect that different climates have on organizational performance.

### Results Management

Performance of the organization is normally defined in terms of its major assignment. While such other aspects of the organization such as morale, member satisfaction, or personal growth might be important concomitants of organization effectiveness, they are not considered to be primary criteria but rather contributors to performance. In other words, we evaluate the performance of an orchestra conductor not by his ability as a musicologist or the happiness of his

musicians, but how well his orchestra plays.<sup>101</sup>

A realistic definition of organization effectiveness might be that effectiveness is the extent to which the organization achieves its output requirements. Effectiveness represents output, not input. The manager must think in terms of performance, not personality.<sup>102</sup>

#### Supporting research

Two specific research studies demonstrate the effects of different organizational climates on total organizational performance. Fredericksen found that the amount of administrative work is more predictable in a climate that encourages innovation than in one that encourages standard procedures; that in an innovative climate (but not in a rules climate) greater productivity can be expected of people with skills and attitudes that are associated with independence of thought and action and the ability to be productive in free, unstructured situations. He also found that performance was more predictable for subjects who worked in a consistent climate (innovation + loose supervision) or (rules + close supervision) than for those who had to operate in an inconsistent environment (innovation + close supervision) or

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<sup>101</sup>Fred E. Fiedler, "Validation and Extension of the Contingency Model of Leadership Effectiveness: A Review of Empirical Findings," Psychological Bulletin, LXXVI (1971), 131.

<sup>102</sup>Reddin, Managerial Effectiveness, p. 1.

(rules + loose supervision).<sup>103</sup> In further analysis of the same study, it was demonstrated that inconsistent climates have a negative effect on productivity. Specifically, those subjects who were placed in a climate that encouraged innovation and were at the same time subjected to detailed supervision worked at a substantially reduced level of output. Digging still deeper in the data, Fredericksen was able to show that subjects employed different work methods under different climate conditions.<sup>104</sup>

Litwin and Stringer found that, depending on the performance needs of the organization, different climates were appropriate. Achievement-oriented climates appear to stimulate performance in organizations that demand individual initiative and calculated risk taking. Such climates would also be appropriate in an organization seeking to grow rapidly in a changing environment where individual responsibility and risk taking are inevitably required.

Improved performance might also be expected in an affiliation-oriented climate where the work requires building close relationships and in situations where highly competent and motivated people are working on very specialized tasks and where some noncoercive means for generating organizational cohesion and team spirit seems required.

Interestingly enough, Litwin and Stringer found that

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<sup>103</sup>Campbell, et al., Managerial Behavior, pp. 401.

<sup>104</sup>Ibid., pp. 401-402.

power-oriented climates could also result in improved performance in organizations which are very hierarchical in structure and for organizations where the work is highly routinized and repetitive. Apparently, there are people who respond positively to such a power-oriented setting.

What Litwin and Stringer are suggesting is that the matching of organizational and individual characteristics would maximize both organizational effectiveness and individual satisfaction. Organizational performance, then, is a product of the individual's needs (I) and his environment (E).

#### Summary and Conclusion

What type management system produces organizational excellence? Referring back to the model, one sees that the tone of the management system is strongly influenced by the leaders at the top of the organization; that the system of management used in the organization is a prime determinant of the organizational climate; and that different climates arouse different motives within individuals. What management system is most effective in terms of organizational performance depends on the needs and wants of the people who work in the organization. This point is critical. If motives are not capable of being elicited or stimulated, more emphasis should be placed on selecting those workers who initially display patterns of behavior required by the organization. If, on the other hand, by changing

organizational arrangements and managerial styles, it is possible to arouse the kinds of motives desired, more emphasis should be given to helping organizations change.<sup>105</sup>

The evidence presented here suggests that the most appropriate management system depends on what the organization is attempting to achieve and the motives of the individuals working in that organization. The two interact in a complex fashion requiring us to develop theories and research approaches which can deal with systems and interdependent phenomena.<sup>106</sup> Surely the same prescriptions cannot be made for all subordinates, all managers, all tasks, and all situations for all organizations.

In building this model, variables which studies showed were relevant to the management process were sequentially introduced (the management system, organizational climate, and individual/organizational performance). Propositions about how an organization was conditioned by the value of each variable were stated. The model of the management system and its impact on the organization may prove to be heuristic. As in the case of any theory, the test of a model is whether it generates verifiable and significant propositions.<sup>107</sup>

To test the theoretical structure of the model a number of hypotheses were developed in Chapter I. The question

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<sup>105</sup>Schein, Organizational Psychology, p. 63.

<sup>106</sup>Ibid., p. 65.

<sup>107</sup>Evan, "A Systems Model," p. 120.

to be answered is how does the theoretical model presented above apply to a specific organization? In this case a 60-bed government hospital will provide the setting in which the hypotheses can be tested.

## CHAPTER III

### CHARACTERISTICS OF THE HOSPITAL SYSTEM

#### Introduction

A key factor in the development of an organizational theory is the extent to which general concepts are appropriate for various forms of organization. In Chapter II, a generalized theoretical model was developed. It was based on the propositions of several eminent organizational theorists. Such a model should apply to all modern organizational structures, essentially without qualification. However, as Etzioni notes, propositions believed to hold for all organizations have to be tested separately for each organizational type.<sup>1</sup>

The intent of this study is to test the theoretical model in a hospital setting. Few organizations offer such a challenging environment in which to test the validity and generality of any management theory. The hospital has a unique organizational structure and a complex social system. There are other reasons to study the hospital. Hospitals

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<sup>1</sup>Amitai Etzioni, "Authority Structure and Organizational Effectiveness," Administrative Science Quarterly, IV (1959), 44.

are becoming increasingly important to society. The size and scope of the hospital industry underscores this importance. The industry already ranks as the third largest employer nationally and indications are it will grow larger.<sup>2</sup> By 1975 over 3 1/2 million wage earners will be employed by the hospital industry in the United States.<sup>3</sup> Surprisingly, however, little organizational research has been conducted in the industry. Greenblatt, et al. recently stated, "in health administration, there are few theoreticians, few training centers, few books and an almost dearth of strict scientific investigations."<sup>4</sup>

In order to study the hospital as a social institution, the relevant characteristics, organizational processes, and their interrelationships must be described. It is the purpose of this chapter to examine first, the common characteristic of hospitals in general and second, the unique aspects of the specific hospital that will serve as the basis for analysis.

### The Hospital System

Like other large scale organizations, the hospital pursues certain objectives. The main objective is to

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<sup>2</sup>E. B. Helin, "Hospitals: Over 40 or 8 and 80?" Personnel Journal, LI (1972), 565.

<sup>3</sup>Ibid.

<sup>4</sup>Milton Greenblatt, Myron R. Sharaf, and Evelyn M. Stone, Dynamics of Institutional Change (Pittsburgh: University of Pittsburgh Press, 1971), pp. 239-240. Cited in Harvard Business Review, IL (Nov-Dec, 1971), 43.



provide high-quality patient care within the level of technology, medical knowledge, and available economic resources. Its principal product is medical, surgical, and nursing service to the patient.<sup>5</sup> Much of its work is performed by a highly trained professional staff who require the support of other technical and non-professional personnel. The professionals include the medical staff--the doctors--and graduate nurses serving in various supervisory and direct patient care positions.<sup>6</sup> A variety of technicians perform the highly specialized tasks required in supporting departmental functions such as x-ray, laboratories, and similar departments. In addition to these professionals and technicians, an administrative staff performs the fiscal and administrative functions of the organization. Apart from these occupational groups, a variety of relatively untrained persons execute the important tasks of warehousing, housekeeping, laundry, dietary, and nursing aid functions. In sum, professionalization and specialization are two hallmarks of the hospital.

The work of the professionals, technicians, and non-professionals is mutually interlocking and interdependent; consequently, the hospital must develop an intricate system of internal coordination. Fundamentally, the hospital is a human rather than a machine system. In spite of a great

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<sup>5</sup>Basil S. Georgopoulos and Floyd C. Mann, The Community General Hospital (New York: The Macmillan Company, 1962), p. 5.

<sup>6</sup>Ibid., p. 6.

variety of elaborate equipment, it has no integrated mechanical-physical system for handling its work.<sup>7</sup> In fact, its product is extremely individualized and specifically tailored to the needs of its customers.

It is doubtful if, in our society, there are many institutions more complex than the general hospital.<sup>8</sup> In characterizing the hospital system Wilson notes:

Hospitals are among the most complex organizations in modern society, characterized by extremely fine division of labor and an exquisite repertory of technical skill. The major hospital embraces multiple goals, chiefly patient care, teaching and research. It is at once a hotel, a treatment center, a laboratory, a university. Because the institution's work is so specialized, staffed by a variety of professional and technical personnel, there are very important problems of coordination and authority.<sup>9</sup>

In terms of an organizational system, hospitals take on certain characteristics of research organizations and universities; knowledge is institutionalized and there is a strong commitment to individual autonomy and freedom. Institutions of this type are also characterized as catering to values which are usually upheld by the professional.<sup>10</sup> Thus, Etzioni categorizes a hospital as a "professional organization" as opposed to a strict line and staff

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<sup>7</sup>Ibid., p. 7.

<sup>8</sup>Robert N. Wilson, "The Social Structure of a General Hospital," The Annals of the American Academy of Political and Social Science (March, 1963), p. 69.

<sup>9</sup>Ibid., p. 67.

<sup>10</sup>Etzioni, "Structure and Effectiveness," p. 59.

"bureaucratic organization."

As an overview, Georgopoulos and Mann provide a list of the ten main distinguishing characteristics of general hospitals:<sup>11</sup>

1. The main objective of the organization is to render personalized service, care, and treatment to individual patients rather than to manufacture some uniform material object.

2. In comparison with industrial organizations, the hospital is much more directly dependent upon, and responsive to, its surrounding community. Its work is closely integrated with the needs and demand of its consumers and potential customers.

3. The demands of much of the work at the hospital are of an emergency nature and are nondeferrable.

4. The nature and volume of work are variable and diverse and are subject to relatively little standardization.

5. The principal workers in the hospital--doctors and nurses--are professionals, and this entails various administrative and operational problems for the organization.

6. In comparison with industrial organizations, the hospital has relatively little control over its workload and over many of its key members.

7. The administrator has much less authority, power, and discretion than his managerial counterparts in industry

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<sup>11</sup>Georgopoulos and Mann, Community Hospital, pp. 13-14.

because the hospital is not and cannot very well be organized on the basis of a single line of authority.

8. The hospital is a formal, quasi-bureaucratic, and quasi-authoritarian organization which, like most organizations of this kind, relies greatly on conventional hierarchical work arrangements and on rather rigid impersonal rules, regulations, and procedures.

9. The hospital shows a very great concern for efficiency and predictability of performance among its members and of overall organizational effectiveness.

10. Finally, the community general hospital is an organization which is important to us all and which is becoming increasingly important.

#### Goals and Goal Attainment

There is little ambiguity, if any, about the main organizational objective of the general hospital. The chief objective of the hospital is, of course, to provide adequate care and treatment to its patients.<sup>12</sup> In the final analysis, the hospital stands or falls on the basis of the care provided.<sup>13</sup> But there are also some important limitations concerning the degree to which this objective can be accomplished. Technical medical knowledge, effective organization

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<sup>12</sup>Ibid., p. 5.

<sup>13</sup>Paul J. Gordon, "The Top Management Triangle in Voluntary Hospitals (II)," Journal of the Academy of Management, V (April, 1962), 67.

and scarcity of economic resources to some degree limit the accomplishment of the patient care objective.

The attainment of this objective is also affected by the social-cultural values of the external environment. Today, as an example, the hospital is faced with the problem of expanding its goals to include consideration of preventive medicine, public health practices, and total community health care.<sup>14</sup> This pressure for expansion is a product of factors external to the system. As a result, the hospital is gradually transforming its objectives from individual patient care to the broader aspects of total health service.<sup>15</sup> These changes have influenced the various subsystems of the hospital and will be examined shortly. In spite of expanded goals, however, emphasis upon patient care still permeates the value system of the typical general hospital.

#### Measuring Goal Attainment

In the analysis of complex organizations the definition of organizational goals is commonly utilized as a standard of appraising organizational performance.<sup>16</sup> This point is made by Kahn as he states: "An organization exists for

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<sup>14</sup>James D. Thompson and William J. McEwen, "Organizational Goals and Environment: Goal-Setting as an Interaction Process," American Sociological Review, XXIII (1958), 23.

<sup>15</sup>Fremont E. Kast and James E. Rosenzweig, Organization and Management: A Systems Approach (New York: McGraw-Hill Book Company, 1970), p. 537.

<sup>16</sup>Thompson and McEwen, "Organizational Goals," p. 23.

the achievement of some goal--the creation of a product, the rendering of a service or the edification of its members--and one of the criteria by which it may properly be judged is its success and efficiency in achieving its goal."<sup>17</sup>

Performance measurement in a hospital may at first seem clear. The goal or objective, as has been stated, is patient care. Once a satisfactory assessment of patient care is attained, different aspects of hospital performance can be related systematically to the quality of care, and factors associated with better or poorer care can then be determined.<sup>18</sup>

There are two important factors, however, which immediately cloud the issue. The first deals with the goal itself (quality patient care) and the second with the efficient use of resources to achieve the goal (efficiency).

#### Quality patient care

The problems encountered in attempting to evaluate the quality of patient care are complex. Thompson and McEwen note: ". . . as goals call for increasingly intangible, difficult-to-measure products, society finds it more difficult to determine and reflect its acceptability of that product . . ."<sup>19</sup>

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<sup>17</sup>Robert L. Kahn, "The Prediction of Productivity," The Journal of Social Issues, XII (1956), 41.

<sup>18</sup>Georgopoulos and Mann, Community Hospital, p. 198.

<sup>19</sup>Thompson and McEwen, "Organizational Goals," p. 24.

Before any system can be developed that measures quality patient care, the all-pervasive methodological problem of defining and measuring the subtle and complex concept of patient improvement must be overcome.<sup>20</sup> Defining patient improvement is especially difficult where improvement takes place over time and is a functional concept often unassociated with a change in the basic disease process. Improvement is also difficult to measure where the definition of therapeutic objectives is often the joint responsibility of a group of co-professionals with both physical and behavioral objectives.<sup>21</sup>

Assuming for a moment that the methodological problem of definition and measurement of quality medical care could be overcome, a second problem remains. Physicians tend to see quality control as a punitive measure threatening their professional standing and dignity.<sup>22</sup> Additionally, quality control--which must be a centralized, institutionalized, bureaucratic technique--appears to be in direct conflict with the individual physician's control of the care of his individual patient.<sup>23</sup>

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<sup>20</sup>Paul M. Ellwood Jr., "Quantitative Measurement of Patient Care Quality (II)," Hospitals, XL (December 16, 1966), 59.

<sup>21</sup>Ibid.

<sup>22</sup>Paul M. Ellwood Jr., "Quantitative Measurement of Patient Care Quality (I)," Hospitals, XL (December 1, 1966), 42.

<sup>23</sup>Ibid.

The literature on hospitals and patient care indicates the difficulties and alternatives regarding the measurement of quality patient care. Three major approaches have been frequently proposed:

1. The accreditation approach. Accredited hospitals meet certain standards and requirements while nonaccredited hospitals do not. Most hospitals are accredited institutions so accreditation is not adequate in itself to distinguish between a higher and a lower performing hospital.

2. The patient approach. A seemingly logical solution is to ask the patient what he thinks of the quality of care he has received. Unfortunately, the patient is hardly in a position to evaluate the quality of his care. The patient has limited medical knowledge, he is influenced by the patient-physician interaction which may or may not affect his recovery, his goals and expectations are often at variance with the hospital staff, and being a transient member of the hospital system, the patient cannot be expected to familiarize himself with the many facets of the care process.<sup>24</sup>

3. The clinical approach. This approach to performance measurement rests on the assumption that qualified judges, such as hospital staff physicians, can appraise patient care on the basis of their medical knowledge and clinical expertise. Although this approach may be the least

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<sup>24</sup>Georgopoulos and Mann present an excellent discussion of this point in Community Hospital, pp. 204-205.



inadequate, there is the difficulty of personal bias when attempting self-appraisal.

From this discussion it can be seen that there is no clear cut method for directly measuring the accomplishment of the goal. For this reason, many hospitals have turned to measuring the quality of care indirectly through indexes of efficiency.

### Efficiency

Efficiency is related to the economic concept of scarcity in that it is concerned with the optimum use of resources. The concept of efficiency is also related to organizational goals. The central concern is the best way to combine a given set of resources in order to achieve a certain goal.

The hospital rests on a foundation of dollars for, although the service that the hospital gives to its patients can never be truly measured in terms of money, the volume and the quality of its work are dependent upon its resources.<sup>25</sup>

Franklin sums up the point as follows:

The basic administrative problem is that both the complexity and cost of hospital operations have risen to the point where it is no longer a simple task to manage the resources of the hospital efficiently since the hospital's size and diversity of function have obscured the determinants of efficiency; and efficiency, per se, has become an important goal of the hospital because of the constant increase in demand for hospital

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<sup>25</sup>S. S. Goldwater, On Hospitals (New York: The Macmillan Company, 1947), p. 60.

services and the rising reluctance to subsidize inefficient hospital operations.<sup>26</sup>

Efficiency, then, is a relevant measurement. The resources devoted to medical care are scarce, and it is highly desirable to find the best of any combination of resources that produces quality medical care.<sup>27</sup> These efficiency measurements are tangible and measurable.

A typical example of a measure of efficiency is the average cost of treating one patient for one day.<sup>28</sup> Other measures deal with the subsystems such as average cost of drugs, x-rays, and outpatient visits. The objective of these measures is to insure the optimum allocation of resources contributing to quality patient care. Such measures can be adopted to the needs of the institution and will provide a basis for control. In an extensive study of ten Michigan hospitals, Georgopoulos and Mann found that the more efficient organizations from a financial point of view are also the better-care hospitals.<sup>29</sup>

However, drawbacks to measures of efficiency may also exist. First, the overall efficiency of the hospital is in

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<sup>26</sup>Carter L. Franklin, II, "The Administrator and Hospital Efficiency: A Proposal," Hospital Administration, XIV (Winter, 1969), 10.

<sup>27</sup>Paul J. Feldstein, "Applying Economic Concepts to Hospital Care," Hospital Administration, XIII (Winter, 1968), 68.

<sup>28</sup>Franklin, "Administrator and Efficiency," p. 10.

<sup>29</sup>Georgopoulos and Mann, Community Hospital, p. 414.

the hands of the hospital administrator, and it is he who is responsible for the hospital's performance.<sup>30</sup> In his attempt to be more efficient, control costs, and improve the financial position of the hospital, the administrator may compromise patient care. Patient care may be sacrificed at the alter of efficiency. In addition, measures of performance are institutionalized and not under the direct control of the professional staff or individual physician.

Another problem concerns the noncomparability of measures between hospitals due to the differing requirements for collection, measurement, and presentation of data. Perhaps the most significant deficiency is that this approach fails to measure patient care directly--it merely measures components of the system and is circumstantial evidence at best. The crucial assumption is that (1) acceptable components are a valid index of acceptable care and that (2) the acceptable care processes being measured are highly correlated with outcomes.<sup>31</sup>

In summary, then, the theoretical problems of assessing hospital performance are not unlike the problems of measuring performance in an industrial firm. Judgment must be used in deciding the main goal of the organization and how achievement toward that goal will be measured. Components

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<sup>30</sup>Franklin, "Administrator and Efficiency," p. 10.

<sup>31</sup>Ellwood, "Quantitative Measurement (I)," pp. 43-44.

of input-output in a hospital, however, are more diverse; therefore the measurement of hospital performance is less tangible, and considerably more elusive.<sup>32</sup> Apart from these difficulties, hospitals do not ordinarily maintain uniform, or even comparable, data regarding their output or data yielding suitable measures of patient care.<sup>33</sup>

### Technology

Perhaps no other factor has had a greater influence on shaping the structure of the general hospital than advancing technology. Certainly it has been the cultural system that has shaped the legitimate goals for the hospital. However, rapidly changing technology regulates the means for reaching these goals. Technology determines how the broad cultural mandate can be carried out and influences the kinds of interaction that people can have.<sup>34</sup>

Illustrating the point, expanding technology usually means that activities which were formerly considered single units of effort are dissected and split into multiple units of effort, each of them specialized and highly developed.<sup>35</sup>

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<sup>32</sup>Georgopoulos and Mann, Community Hospital, p. 199.

<sup>33</sup>Ibid.

<sup>34</sup>Charles Perrow, "Hospitals: Technology, Structure, and Goals," in Handbook of Organizations ed. by James G. March (Chicago: Rand McNally and Company, 1965), p. 966.

<sup>35</sup>James D. Thompson and Frederick L. Bates, "Technology, Organization, and Administration," Administrative Science Quarterly, 11 (1957), 326.

This is the now familiar process called division of labor. With the advancing technology and division of labor comes increasing complexity within the social organization designed to operate it. In place of a few distinct vocations, the U.S. Department of Labor now lists 83 separate vocational careers related to hospitals.<sup>36</sup>

Every criterion for differentiation of functions in the hospital represents a possible or potential basis for cleavage and conflict--the more functional the hospital becomes, the greater are the problems of integration. Segmentation, among other things, means that the organization is likely to respond and function by parts rather than as a unified structure.<sup>37</sup> As members of the hospital differentiate among themselves as specialists, distinctions leading to problems of status and authority naturally arise.

The division of labor also leads to a division of loyalty. Increasing technological complication in hospitals is accompanied by a proliferation of professionalism and technical societies and associations, each with a unique value and code of ethics. Hence, there is more likelihood for hospital members to owe loyalty or allegiance to a profession; greater opportunity for the demands of the organization to conflict with those of the profession; and, at the

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<sup>36</sup>Donald W. Cordes, "Proliferation of Hospital Professions Is New Challenge to Management," Hospital Administration, X (Spring, 1965), 8.

<sup>37</sup>Georgopoulos and Mann, Community Hospital, p. 294.

same time, a greater opportunity for the individual employee to enforce demands on the organization by invoking sanctions from the profession.<sup>38</sup> In this regard, Georgopoulos and Mann found that only 25 percent of the nurses and 27 percent of the technicians in their study felt very strongly identified with their respective hospital and its goals.<sup>39</sup> Their conclusion was that organizational commitment of the members obviously leaves much to be desired, especially by comparison to their professional and work group commitment.<sup>40</sup>

Advancing technology not only affects structure, specialization, integration, and professionalization but affects patient attitudes as well. Technically improved methods result in rationalized and mechanized medical care with accompanying assembly line techniques. Technological changes have come in head-on conflict with belief systems covering the nature of the ill person. The nursing literature is full of references to the dilemma of maximizing technical skills versus "tender loving care."<sup>41</sup> The warmth and intimacy of "tender loving care," a closeness which many believe to be already greatly attenuated by professional specialization, will presumably be even less readily apparent

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<sup>38</sup>Thompson and Bates, "Technology, Organization," p. 343.

<sup>39</sup>Georgopoulos and Mann, Community Hospital, p. 140.

<sup>40</sup>Ibid.

<sup>41</sup>Perrow, "Hospitals: Technology," p. 963.

under automation.<sup>42</sup>

Lastly, the effect technological change has had on hospitals concerns the management of change. Because technology in the hospital is knowledge-based (as opposed to machine-based), the hospital has been more flexible in adapting to change as compared to the factory. In short, the hospital has been able to adjust to technological change more easily and earlier. In this regard, one author has suggested that the hospital be considered as a prototype organization for industry in terms of its ability to handle changing technology and the accompanying professionalization.<sup>43</sup> The implication is that as our society becomes more highly trained and educated, it also becomes more professionalized; the hospital has been relatively successful in adapting to this environment.

### Structure

Like any social system, a hospital has a describable structure. Max Weber has provided a useful framework for analyzing and understanding complex organizations. Weber has classically described bureaucracy as authority functioning in a clearly defined hierarchy with "packets" of authority and

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<sup>42</sup>Wilson, "The Social Structure," p. 67.

<sup>43</sup>For an excellent discussion of this point see Alan D. Bauerschmidt, "The Hospital as a Prototype Organization," Hospital Administration, XV (Spring, 1970), 6-14.

prestige prescribed for each level.<sup>44</sup> Weber's model of bureaucracy has also been summarized as a rational, efficient organization characterized by hierarchical authority, division of labor on the basis of specialized competence, systematic rules, and impersonality.<sup>45</sup>

An important insight, or perspective, which has influenced the study of general hospitals stems from the deviate character of their structure from the standard bureaucratic model postulated by Weber. This has probably been the most underlying concern in the significant studies of general hospitals.<sup>46</sup>

Basically, a hospital may be viewed as an organization at cross-purposes with itself.<sup>47</sup> Glaser aptly describes how this comes about:

The hospital, they say, is manifestly dedicated to the provision of means for treating patients successfully. However, every organization requires an administrative structure to arrange its resources economically and to control deviant behavior. Thus, therapeutic and administrative structures exist simultaneously in the hospital, each with its own priorities and personnel. Emphasizing one set of goals (such as administrative order) is dysfunctional for maximization of the other structure's goals (such as patient care), and conflicts

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<sup>44</sup>Harvey L. Smith, "Two Lines of Authority Are One Too Many," Modern Hospitals, LXXXIV (March, 1955), 60.

<sup>45</sup>Ellwood, "Quantitative Measurement (I)," p. 42.

<sup>46</sup>Perrow, "Hospitals: Technology," p. 957.

<sup>47</sup>Smith, "Two Lines of Authority," p. 59.



occur between the two lines of authority (such as the lay administrators and the doctors).<sup>48</sup>

There seems to be a basic incompatibility between the professional orientation and the bureaucratic orientation.<sup>49</sup>

The difference, then, between hospitals and most organizations is the system of multiple authority or multiple subordination. A different authority structure has been constructed. This deviation from the Weberian model of bureaucracy has fascinated social scientists.<sup>50</sup> Etzioni has given an excellent description showing how this duality of authority comes about:

Although manager orientations are suitable for the major goal activities in private business, the major goal activity of professional organizations is in its mature expertness. Managers in professional organizations are in charge of secondary activities; they administer means to the major activity carried out by experts. In other words, if there is a staff-line relationship at all, experts constitute the line (major authority) structure and managers the staff. Managers give advice about the economic and administrative implication of various activities planned by the professionals. This final internal decision is, functionally speaking, in the hands of the various professionals and their decision-making bodies. The professor decides what research he is going to undertake and to a large degree what he is going to teach; the physician determines what treatment should be given to the patient.<sup>51</sup>

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<sup>48</sup>William Glaser, "Medical Care: Social Aspects," International Encyclopedia of the Social Sciences, X (1968), 98.

<sup>49</sup>Smith, "Two Lines of Authority," p. 59.

<sup>50</sup>Perrow, "Hospitals: Technology," p. 957.

<sup>51</sup>Etzioni, "Structure and Effectiveness," p. 52.

This unique formal structure must be examined in detail. In the general hospital there is an absence of a single line of authority.<sup>52</sup> Authority does not emanate from a single source nor does it flow along a single line of command. One author described the hospital as a train running on parallel rails. In visual perspective parallels merge at a distant point.<sup>53</sup>

The problem may be seen another way--as a conflict between two systems of status in the hospital. This idea centers on Barnard's scalar status (the status inherent in a position within some hierarchical system) and functional status (the status inherent in certain kinds of work regardless of position in a rank system). Thus, in a hospital the administration represents a system of scalar status and the professional staff a system of functional status. Hospital personnel find themselves receiving orders from carriers of both forms of status--from the administrative side whose "right to boss" them is explicitly recognized and from the professional staff whose "right to boss" them is not so clearly recognized but just as keenly experienced.<sup>54</sup> Since the doctor is the person with the functional authority to interpret the needs of the patient, he is also the one person

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<sup>52</sup>Georgopoulos and Mann, Community Hospital, p. 11.

<sup>53</sup>David B. Starkweather, "The Classicists Revisited," Hospital Administration, XII (Summer, 1967), 70.

<sup>54</sup>Smith, "Two Lines of Authority," p. 60.

who can give orders on how the patient is to be treated. His orders, of course, regulate employees of the hospital over whom he does not have the ordinary "line" administrative control.<sup>55</sup> Smith summarizes the essence of this point:

. . . at the staff level, the physicians do not act merely in a passive advisory capacity. They intervene actively and powerfully throughout the structure, exerting power upon hospital operating personnel, defiant of administrative regulation, and where they are members of boards of trustees, are able directly to control top management itself--and it is here that we find the important resistances to management generated. This distinctive aspect of the hospital power structure highlights the problems of hospital administration.<sup>56</sup>

In the main, administration is forced to focus upon the contingencies of fiscal survival, and the professional staff more often appears as the person dedicated to the service aspect.<sup>57</sup> It is of interest to note that some of the complaints usually launched against the experts in private business are launched against administrators in professional organizations: they are said to lose sight of the major function of the organization in pursuit of their specific, limited responsibilities.<sup>58</sup> In any event, it is the employees of the hospital who have to mediate between the often conflicting demands of money and service.

There is hardly an area unaffected by the two perspectives held by the administration and medical staff.

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<sup>55</sup>Gordon, "Top Management Triangle," p. 69.

<sup>56</sup>Smith, "Two Lines of Authority," p. 60.

<sup>57</sup>Ibid.

<sup>58</sup>Etzioni, "Structure and Effectiveness," p. 52.

Throughout the literature, it is clear that doctors in the purely professional aspects of their practice cannot be subject to control by laymen. It is also difficult to decide which are purely professional aspects of the doctors' activities and which are properly administrative.<sup>59</sup>

The absence of a single line of authority creates various administrative and operational problems as well as psychological problems associated with relative power and influence. For one thing, it makes coordination rather difficult. For another, it allows instances in which it is not clear where authority, responsibility, and accountability reside.<sup>60</sup> The absence of a single line of authority also makes it difficult to resolve problems that must be solved through the cooperative efforts of the lay administrators and medical professionals.<sup>61</sup> For this reason, the administrator is prone toward bureaucracy. Increased bureaucracy of organizational operations is likely to be fought and resented by the doctors because it eventually means a reduction of their influence.<sup>62</sup>

In spite of these differences with Weber's bureaucratic model, there are some striking similarities. Any systematic organization tends towards the machine-like

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<sup>59</sup>Gordon, "Top Management Triangle," p. 68.

<sup>60</sup>Georgopoulos and Mann, Community Hospital, p. 12.

<sup>61</sup>Ibid.

<sup>62</sup>Ibid., pp. 12-13.

methods of bureaucracy. No hospital can wholly dispense with the system.<sup>63</sup> Paradoxical as it may seem, the hospital is a highly formal, quasi-bureaucratic organization which, like all task-oriented organizations, relies a great deal upon formal policies, formal written rules and regulations, and formal authority for controlling much of the behavior and work relationships of its members. This idea is conveyed by Georgopoulos and Mann:

The emphasis on formal organizational mechanisms and procedures and on directive rather than "democratic" controls, along with a number of other factors, gives the hospital its much talked about "authoritarian" character, which manifests itself in relatively sharp patterns of superordination-subordination, in expectation of strict discipline and obedience; and in distinct status differences among organizational members.<sup>64</sup>

This authoritarian characteristic stems in part from the crisis orientation of the hospital. Like the military, when responding to life and death situations or disasters, the system is pulled together by strict adherence to formal rules and discipline. Under these circumstances, it is important that organizational lines of authority and responsibility be clearly drawn and discipline be maintained. Consequently, a good deal of regimented behavior is required by the system, and coordination of activities must in part be achieved in a

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<sup>63</sup>Wilson, "The Social Structure," p. 74.

<sup>64</sup>Georgopoulos and Mann, Community Hospital, p. 7.

highly directive manner through formal, hierarchical relationships.<sup>65</sup>

There is another factor that is tending to push hospitals more and more toward the bureaucratic tradition. Technology has brought with it specialization and high cost medicine. In the recent past, and even more today, there is growing concern that the hospital optimize and efficiently use its resources. The increasing complexity of patient care and diagnostic medicine and the proliferation of specialties all demand a level of administrative ability that goes beyond the training of the medical specialist.<sup>66</sup> With the growing importance of administration, there has been a growing professionalization of administrators.<sup>67</sup> In this regard, Perrow notes administration is power; those who wish to change things, get things done, or implement social or personal goals in organizations will have to turn to administrative activities.<sup>68</sup>

#### Coordination

The emphasis on underlying duality and conflict in authority leads one to conclude that the hospital organization is a barely workable system with a built-in propensity

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<sup>65</sup>Ibid., p. 423.

<sup>66</sup>Perrow, "Hospitals: Technology," p. 950.

<sup>67</sup>Ibid.

<sup>68</sup>Ibid., p. 960

for conflict and crisis. There are structural factors, however, that tend to unite and integrate the entire system. One, as previously mentioned, is the patient himself who by his very presence is a coordinating force. The needs of the ill are not enough. To do its work, the hospital relies upon a complex and elaborate system of formal and informal coordination of tasks, functions, and social interaction.<sup>69</sup> Georgopoulos and Mann make this point clear by noting:

Because of this extensive division of labor and accompanying specialization of work, practically every person working in the hospital depends upon some other person or persons for the performance of his own organizational role. Specialists, and professionals can perform their functions only when a considerable array of supportive personnel and auxiliary services is put at their disposal at all times. Doctors, nurses, and others in the hospital do not, and cannot, function separately or independently of one another. Their work is mutually supplementary, interlocking, and interdependent. In turn, such a high interdependence requires that the various specialized functions and activities of the many departments, groups and individual members of the organization be sufficiently coordinated, if the organization is to function effectively and attain its objectives. Consequently, the hospital has developed a rather intricate and elaborate system of internal coordination. Without coordination, concerted effort on the part of its different members and continuity in organization operations could not be ensured.<sup>70</sup>

Because internal differentiation is so extensive and so highly developed in hospitals, the question of coordination is a crucial one to the effective functioning of organizational units and of the total system. Moreover, problems

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<sup>69</sup>Georgopoulos and Mann, Community Hospital, pp. 5-6.

<sup>70</sup>Ibid., pp. 6-7.

of coordination assume special significance here because the organizational product is neither shoes nor cars but the health and well-being of people.<sup>71</sup>

For hospitals, then, the problem of coordination is the problem of articulating and interrelating the diversified, but interacting and interdependent, parts of the organizational system and the special activities of these parts, so that the total system can attain structural coherence and functional unity.<sup>72</sup> It is the problem of how best to fit together the different elements and activities of the organization and how to gear available resources and facilities in a direction that enables the organization to respond as an effective system.<sup>73</sup> It has been found that hospitals which are most successful in meeting these requirements are the ones who provide the most adequate patient care.<sup>74</sup>

There are two aspects that tend to compound the problem of coordination in a hospital. First, each patient has to be treated as a separate entity. Care has to be individually tailored. In addition to focusing many diverse elements on a single product, the coordinator must focus these diverse elements on several diverse products. Secondly, the

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<sup>71</sup>Ibid., p. 270.

<sup>72</sup>Ibid., p. 597.

<sup>73</sup>Ibid.

<sup>74</sup>Ibid., pp. 605-608.



hospital is a human system because of its tremendous dependence upon people. Informal coordination is a necessity in a human system. These informal ties are not diversions or obstacles. Although they may be conceptually untidy, they are the flesh and blood of an institution as the formal blueprint is the skeleton.<sup>75</sup> Furthermore, it is in an enterprise where human differentiation is greatest that supplementary types of informal coordination are the most required.<sup>76</sup> In the last analysis, the hospital's system of coordination depends upon the skills, social interactions, and reciprocal understandings that different individuals have of each other's roles and tasks rather than upon mechanical systems or formal rules and regulations.<sup>77</sup>

#### Role and Value Systems in the Hospital

Each specialty in the hospital system, whether professional or administrative, constitutes a distinct social system. In order to understand and explain human behavior in the hospital system, we must have a fairly firm understanding of each group's frame of reference and its system of beliefs and values.<sup>78</sup> In addition, it is important to

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<sup>75</sup>Wilson, "The Social Structure," p. 73.

<sup>76</sup>Thompson and Bates, "Technology, Organization," p. 341.

<sup>77</sup>Floyd C. Mann, "The Community General Hospital: A Part of a Research Continuity," Hospital Administration, IX (Summer, 1964), 39.

<sup>78</sup>Thomas R. O'Donovan, "Human Relations in the Hospital," Hospital Administration, XI (Winter, 1966), 51.

know something about the distribution and balance of influence in the hospital, especially about the influence of key groups within the organization.<sup>79</sup> It is here, then, that the discussion moves from organizational factors to social-psychological ones.

One would have great difficulty, even in present day society, finding any other organization whose internal differentiation and structural heterogeneity could match that of a hospital.<sup>80</sup> A staggering variety of people differing in education, skill, training, and status is involved in patient care between admission and discharge. This makes the social organization of the modern hospital one of the most complicated in our civilization.<sup>81</sup>

As a result of this complex social system, there is a variety of status and role systems in the hospital. Different types of caps, white and colored uniforms, and various titles are geared to the implementation and maintenance of status identifications.<sup>82</sup> One author has noted the formal organization, "is reinforced by authority and status symbols to a degree not exceeded by any other type or organization,

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<sup>79</sup>Georgopoulos and Mann, Community Hospital, 566.

<sup>80</sup>Ibid., p. 268.

<sup>81</sup>Wilson, "The Social Structure," p. 68.

<sup>82</sup>Kast and Rosenzweig, Organization and Management, p. 544.

including the military."<sup>83</sup>

With the exception of the lowest categories of hospital workers, orderlies and aides, the general principle is that prestige hinges on the extent to which an individual's work entails direct patient care.<sup>84</sup> One master theme which helps one comprehend the major contingencies of interpersonal behavior is the struggle for occupational prestige.<sup>85</sup> A struggle for a place in the hospital sun is unremittingly waged by most of the myriad occupational groups especially those most closely tied to therapeutic tasks.<sup>86</sup> Precisely because systems of authority are unclear, there is often a premium on flexible, not to say opportunistic, behavior.<sup>87</sup> Wilson captures the essence of this point by noting:

Each yearns for a sphere of effort in which he and he alone can be a proficient actor. The professionalization of work has many implications, from the deleterious consequences of departmental infighting to the beneficent results of enhanced competence. Unfortunately, the patient is often the battleground of professional competition; his body, mind and purse are scarred by the zealous attempts to do for him what each staff member's speciality dictates. The hospital, too, is a battleground, often ripped by a cross fire of professional purposes.<sup>88</sup>

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<sup>83</sup>George R. Wren, "The Sociology of the General Hospital: A Structural-Functional Consideration," Hospital Administration, XI (Fall, 1966), 56.

<sup>84</sup>Wilson, "The Social Structure," p. 72.

<sup>85</sup>Ibid.

<sup>86</sup>Ibid., p. 73.

<sup>87</sup>Ibid.

<sup>88</sup>Ibid.

It has been suggested that the common goal of patient care is the one integrating element that counteracts the disruptive forces that exist in this complex organization.<sup>89</sup> The difficulty arises, of course, when each group of participants--patients, medical staff, nurses, administrative staff, and other specialists--interpret the means for meeting this objective in terms of their own value system and requirements.<sup>90</sup> The nature of the resulting conflict can be clarified by examining the individual roles played by various groups.

### The patient

A key individual in the hospital system is the patient. He is the focal point of all hospital activities. Paradoxically, he exerts the least amount of influence over the system. The patient is a passive creature and, for the most part, dependent upon the specialized knowledge of the patient care system. As he strips off his clothing, so he strips off, too, his formal costume of social roles, his customary identity in the world. He becomes subject to a time schedule and a pattern of activity not of his own making.<sup>91</sup> In sum, his status external to the organization normally has little bearing on his status in the hospital.

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<sup>89</sup>Wren, "Sociology of the Hospital," p. 55.

<sup>90</sup>Kast and Rosenzweig, Organization and Management, p. 536.

<sup>91</sup>Wilson, "The Social Structure," p. 70.

### The medical staff

The medical staff has a high status position within the hospital. There is a substantial amount of charisma ascribed to the physician which is reinforced by the degree of specialization and technical competence required for practice.<sup>92</sup> The physician values independence and resents interference and restriction.<sup>93</sup> Physicians tend to resist bureaucratic interference and owe allegiance to professional status rather than to the organization. Even though an individual physician may like administration, he must express a ritual repugnance to it as part of his role.<sup>94</sup>

Physicians exert power throughout all levels of the system--upon nurses, ward personnel, upon patients, and even directly upon administrators themselves.<sup>95</sup> Georgopoulos and Mann note, however, a good deal of tension existing between doctors. This tension arises primarily from status differences, competition for use of hospital facilities, and the specialist-general practitioner roles which various groups play. In short, potential conflict arises in the role the physician plays in the hospital. His role is traditionally

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<sup>92</sup>Kast and Rosenzweig, Organization and Management, p. 546.

<sup>93</sup>O'Donovan, "Human Relations," p. 57.

<sup>94</sup>Perrow, "Hospitals: Technology," p. 960.

<sup>95</sup>Smith, "Two Lines of Authority," p. 59.

one of a maverick who makes life somewhat uneasy for the administrator.<sup>96</sup>

### The administrative staff

Because the professionalization of the administrative function is a rather new phenomenon, it does not have the prestige or stature of medicine. However, the administrative staff has an emerging role in the hospital system. With the public pressure for efficiency in hospital operations plus the further specialization of the medical profession, the administrator's role is rapidly becoming more important.

Presently, the administrative staff handles the business aspects of the system. Administration is looked upon as the focal point of the financial, personnel, and physical resources. Administration is often called upon to make formal policies concerning how the system is to operate and then to render judgment concerning interpretation of these policies. In this capacity, the administrator is the most influential of all other groups in the system.<sup>97</sup> Nevertheless, the administrator cannot expect to exercise very much "top down" executive control over doctors.<sup>98</sup> In short, it is the administrator's responsibility to integrate the diverse elements of the system using the power and influence of his

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<sup>96</sup>Wilson, "The Social Structure," p. 71.

<sup>97</sup>Georgopoulos and Mann, Community Hospital, p. 571.

<sup>98</sup>Gordon, "Top Management Triangle," p. 72.

position through the administrative staff. In one instance, he invokes policies and regulations, and in the next, he uses the persuasive influence of his personality. He is a leader, director, and negotiator in the hospital system. The greater the number and the stronger the tensions are among the various professions, the greater is the need for a neutral administrator as final authority.<sup>99</sup>

### The nursing staff

The nursing staff has the difficult but important task of coordinating between the "care" function of the hospital and the "cure" function of the physician. The doctor has direct authority over the nurse on medical aspects of patient treatment. On the other hand, the nurse is a member of the administrative organization. She reports through the hierarchy to the head nurse, director of nursing, and to the administrator. The value system of the staff nurse centers around the professional care of the patient and an entrenched dedication to the service of sick and diseased people.<sup>100</sup> Her final concern is the well-being of the patient.

The medical staff and nursing staff interact more frequently than any other group in the hospital.<sup>101</sup> Like the

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<sup>99</sup>Etzioni, "Structure and Effectiveness," p. 65.

<sup>100</sup>O'Donovan, "Human Relations," p. 58.

<sup>101</sup>Georgopoulos and Mann, Community Hospital, p. 119.

physician, the nurse objects to administrative duties which detract from patient interaction.<sup>102</sup> The nurse often does not aspire for higher positions in the organization and many times holds the position to supplement family income.<sup>103</sup> As such, organizational loyalties are normally not strong.<sup>104</sup> Although having a strong influence over the direct care of patients, the nurse typically has little influence over the administrative systems. This tends to frustrate her efforts to influence other aspects of the patient care system.<sup>105</sup>

#### Ancillary personnel

This grouping includes laboratory, pharmacy, x-ray, and other non-professional personnel who perform a supportive function in the patient care system. This group represents a diverse element throughout the hospital. Wilson notes that these groupings possess very narrowly circumscribed authority, and they stand in the no man's land of prestige and control vis-a-vis the nurses.<sup>106</sup> It is among these groups that coats, caps, and colors are used to identify the role they play in the hospital system.

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<sup>102</sup>Chris Argyris, Diagnosing Human Relations in Organizations: A Case Study of a Hospital, Studies in Organizational Behavior, No. 2 (New Haven, Conn.: Labor and Management Center, Yale University, 1956), p. 90.

<sup>103</sup>O'Donovan, "Human Relations," p. 58.

<sup>104</sup>Ibid.

<sup>105</sup>Argyris, Diagnosing Human Relations, p. 90.

<sup>106</sup>Wilson, "The Social Structure," p. 73.



## Conflict Resolution

As noted, it is the tendency of each group to view the objective of patient care in terms of its own role and value system. One might expect the conflicting roles to affect the quality of patient care adversely.<sup>107</sup> This tends to be confirmed by studies of Georgopoulos and Mann who found higher quality care in hospitals where the staff had a greater understanding of each other's work problems and needs.<sup>108</sup> More specifically, they found that tension among interacting groups in hospitals is negatively related to organizational coordination and the quality of patient care.<sup>109</sup> The way to reduce group conflict is to reduce role conflict. However, this is generally a difficult problem. Role conflict can exist totally independent of the personalities of the people involved.<sup>110</sup>

An organization reacts to conflict by four major processes: (1) problem solving, (2) persuasion, (3) bargaining, and (4) politics.<sup>111</sup> The first two of these processes

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<sup>107</sup>Rockwell Schulz and Alton C. Johnson, "Conflict in Hospitals," Hospital Administration, XVI (Summer, 1971), 36.

<sup>108</sup>Georgopoulos and Mann, Community Hospital, p. 400.

<sup>109</sup>Ibid., p. 554.

<sup>110</sup>O'Donovan, "Human Relations," p. 56.

<sup>111</sup>James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, Inc., 1958), p. 129. According to Simon and March, in problem solving it is assumed that objectives are shared and that the decision problem is to identify a solution that satisfies the shared criteria. In the case of persuasion, it is assumed that individual

are analytic in nature; bargaining and politics are normative or political. Conflict resolution in the hospital is more political and normative than rational and analytic. The administrator vis-a-vis doctors, nurses, and the range of technicians is similar to the alignment of the American legislator confronting the executive or judicial branches of American government. It is a system of checks and balances. The fact is that neither administrative nor medical personnel can "run the hospital" unilaterally or determine the fate of the organization as a whole. In this regard, the hospital is more like a federal system than a monolithic entity; its organization takes the form of a federation of departments, each enjoying considerable autonomy and discretion in its management of work.<sup>112</sup> The various groups are watchful of their respective prerogatives and frankly sensitive about their authority and power relations--no group would like its influence reduced.<sup>113</sup> The fact that they are power-conscious suggests that the balance of power among them is very delicate and potentially subject to change.<sup>114</sup>

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goals may differ within the organization but that goals need not be taken as fixed, and agreement without persuasion is sought. By politics they mean a process in which the basic situation is the same as in bargaining--there is intergroup conflict of interest--but the arena of bargaining is not taken as fixed by the participants.

<sup>112</sup>Wilson, "The Social Structure," p. 74.

<sup>113</sup>Georgopoulos and Mann, Community Hospital, p. 570.

<sup>114</sup>Ibid.

Conflict resolution then is essentially a political issue. It concerns power: its distribution, structure and control. It deals with the corporate charter, principal and agent relations, control of licensed activities by personnel not licensed and corporations not eligible for license, freedom versus accountability, professional versus non-professional, and control of professional by non-professional.

The power relationships, the control relationships, and the alternatives available to each group can best be seen as a negotiated relationship and one constantly subject to renegotiation. Conflict is resolved out of the alternative means of leverage and the amount of power behind that leverage which is available to each party involved in the negotiation.<sup>115</sup>

#### The Management System

The foregoing discussion of the goals, technology, structure, and the psycho-social system of the hospital suggests that the management system would also be complex. The diversity of the power base and authority structure creates a dispersal of planning and control decisions in the organization.<sup>116</sup> An implication of this review is that the kind of leadership behavior which is found to be effective in other

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<sup>115</sup>Gordon, "Top Management Triangle," p. 72.

<sup>116</sup>Kast and Rosenzweig, Organization and Management, p. 551.

types of organizations may not be appropriate or effective in the hospital setting.

Under the circumstances outlined above, the problem of achieving and maintaining adequate organizational coordination is paramount. To accomplish this coordination the management system tends to rely on formal authority in some situations and flexible inter-personal relationships in others. This suggests that a type of managerial style which is effective at some levels in the organization may not be equally effective or appropriate at another level. In other words, different types of leadership style are required at varying levels of supervision throughout the organization. As Georgopoulos and Mann note:

In composite, the data concerning the relationship between supervision and organizational effectiveness lead to the conclusion that neither the traditional directive-autocratic style of supervision nor the more recently emphasized equalitarian-democratic "human relations" approach would be most appropriate for the community general hospital. An alternative approach, incorporating some elements from both of these approaches, would be required. In part, this approach would be such that results in good organizational coordination by fostering supervisory practices of the kind that we have specified, with no predominant emphasis on directive leadership or one-sided dependence on human relations practices.<sup>117</sup>

For the system to be effective, the manager must have a wide range of administrative skills to deal with structural problems and human relations skills to deal with diverse elements of the social organization, and he must

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<sup>117</sup>Georgopoulos and Mann, Community Hospital, p. 619.

possess the technical competence to deal with the technology relating to his area of expertise. While some minimum degree of all of these are required, what may be an effective combination of skills for managers at one level may not be an effective skill mix at another. It is obvious that authority derived from technical competence does not necessarily correlate with authority derived from status in the management circle.<sup>118</sup>

Effective supervision would require matching the demands of the organizational setting with the skills of available supervisory personnel, or placing supervisors with particular combinations of skills in organizational positions demanding such combinations, and supervisory practices that maximize given criteria of effectiveness. It follows, of course, that the kind or style of supervision that may be effective in other organizational settings, with reference to some particular criteria, need not necessarily be effective in the community general hospital.<sup>119</sup>

The role of each manager must, therefore, be viewed both structurally and functionally. Structurally, the manager is formally appointed and empowered with specific guidelines and formal prescriptions for behavior. However, these formal structural powers are not enough to accomplish organizational ends. Managers cannot dictate how the goal will be reached. It is necessary, then, to examine the functional role of the manager as one of interrelating organizational objectives through a system of coordination. This coordination is attained through an informal system of shared

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<sup>118</sup>Cordes, "Proliferation of Hospital," p. 10.

<sup>119</sup>Georgopoulos and Mann, Community Hospital, p. 614.

expectations, norms, and interrelationships of organizational members. The problem of the management system, then, is also intimately related to the problem of organizational coordination.<sup>120</sup>

This suggests that a manager is effective if he possesses the appropriate skill-mix that enables him to meet the needs of the time, place, and situation. The challenge of the management system is to create an environment in which the specialist can perform comfortably while fully exercising his or her speciality skills.<sup>121</sup> We should note, however, that this is not the task of other types of organizations. A SAC base, a hospital, a symphony orchestra, or an automobile plant do not have exactly the same problem.<sup>122</sup> The general hospital is a different species of organization. Factors that contribute directly to the effectiveness of other organizations may not be effective in hospitals. The hospital management system is, indeed, complex.

### Hospital Characteristics

The purpose of the remainder of this discussion will be to describe the characteristics of the specific hospital that will serve as the basis for analysis. In a general discussion of hospitals, the unique aspects of the individual

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<sup>120</sup>Ibid., p. 423.

<sup>121</sup>Cordes, "Proliferation of Hospital," p. 11.

<sup>122</sup>Walter W. Sides, "The Case for Participative Management," Hospital Administration, X (Winter, 1965), 19.

institution are blurred. These aspects may well be the most significant elements of analysis.<sup>123</sup> Thus, the objective here is to use the previous discussion as a foundation and to note the similarities as well as the unique aspects of this organization.

#### Organizational Description

The organization which will serve as the basis for analysis is a 60-bed, military-operated, general hospital. It provides care to approximately 40,000-45,000 active and retired military members and their dependents. Hospital and clinic diagnostic and therapeutic services are provided in the specialties of internal medicine, pediatrics, orthopedics, general surgery, otolaryngology (ENT), and optometry, as well as general therapy. The organization is staffed with approximately 30 physicians, 10 dentists, 50 nurses, 5 administrative officers, 12 ancillary service personnel (laboratory officer, pharmacist, social worker, and the like), and 150 enlisted and 110 civil service personnel. Of the approximate 375 total employment, there are approximately 65 military officers. In terms of workload the hospital has recorded approximately 200,000 outpatient visits and approximately 2,900 inpatient visits (admitted to the hospital) annually. The hospital is categorized as a relatively small hospital; however, the number of outpatient visits is

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<sup>123</sup>Wilson, "The Social Structure," p. 68.

relatively large when compared to a similar-sized civilian hospital.

The formal organizational structure is presented in Figure 3.1.

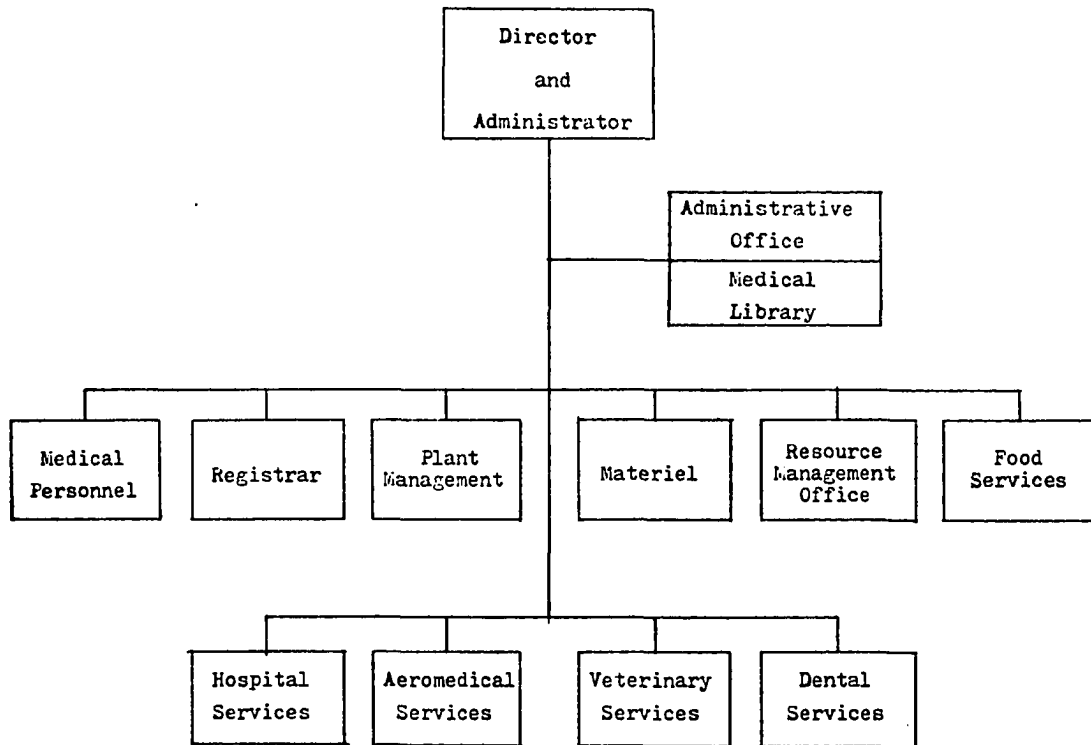


Fig. 3.1.--Formal hospital organizational structure

The Director is a high ranking military officer and is also a physician. The Director and Administrator head the organization and constitute what is known as "The Office of the Director." This title implies some interlocking responsibilities. The Administrator has the responsibility of relieving the Director of unnecessary administrative activities



so that the Director may devote maximum time to the supervision of patient care activities. The Administrative Office is a department designed to maintain regulations, publish hospital policies, and generally regulate the flow of paperwork throughout the organization. The staff positions noted on the second level are relatively self-explanatory with the exception of Medical Personnel and Resource Management Office. The Medical Personnel section is charged with the administrative activities pertaining to enlisted personnel. The Resource Management Office is the business office of the organization. It is responsible for budget preparation, financial controls, personnel staffing, and similar activities. The bottom level in Figure 3.1 depicts the "line" or operational activities of the organization. The Aeromedical Services and Veterinary Services, although important activities, are not major functional departments in terms of the hospital's internal workload. Both activities are located apart from the main hospital. Dental Service provides dental care for all eligible members. The major operational functions are carried out through Hospital Services. Because of the importance of this activity it is further broken out in Figure 3.2.

It is through Hospital Services that direct patient care is performed. Radiology (x-ray), Laboratory, Nursing Service, and Pharmacy are the supporting agencies of Medicine, Surgery, and General Therapy. Each of these activities

has their own structure at lower levels; however, this presentation will suffice to provide an overall organizational setting for further discussion and comparison.

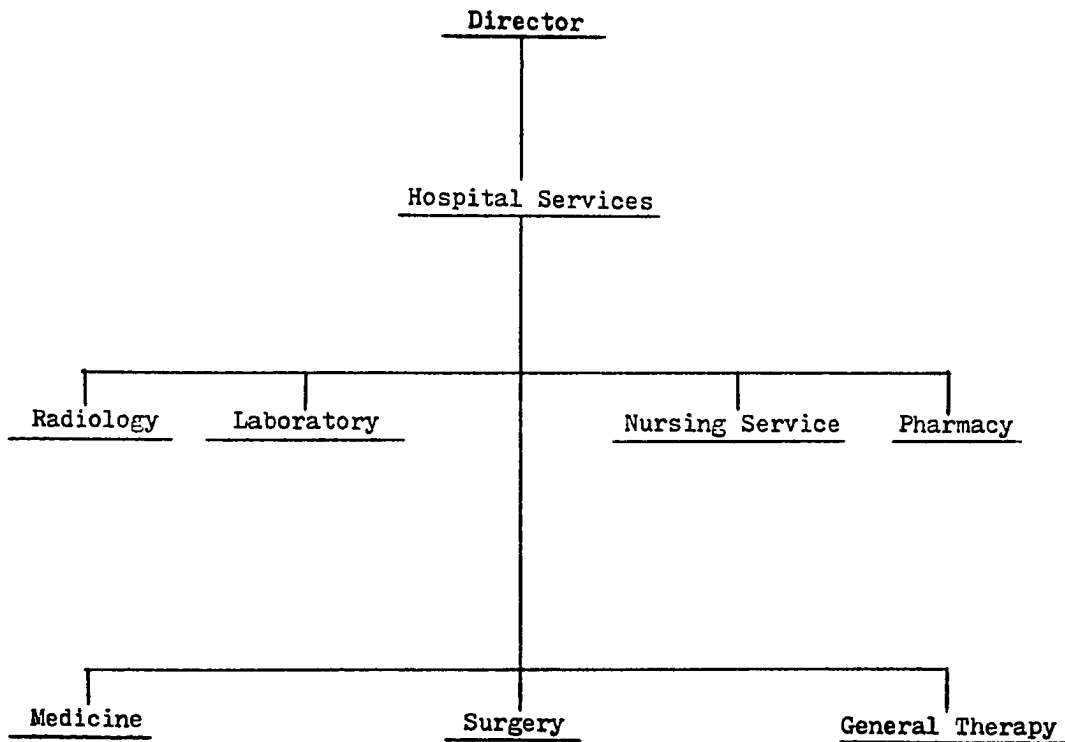


Fig. 3.2.--Formal organizational structure of Hospital Services

#### Goals and Performance Measurement

As with the typical hospital, all goals and objectives of this organization are directed toward the patient. In this regard, comments concerning goals and objectives of hospitals made earlier in the chapter apply equally to this hospital.

It has been noted that organizational performance is gauged in terms of the stated goals of patient care. Certain difficulties in performance measurement were noted along with

various alternative measuring techniques. This hospital attempts to measure patient care through a combination of measuring techniques. First, the hospital is fully accredited by the American Hospital Association using the same standards required of its civilian counterpart. Secondly, patients are queried directly concerning their opinion of the medical care and services rendered. This approach is not, however, considered a major tool for evaluation and few major changes come about as a result of this device. Thirdly, the hospital is subject to numerous medical audits from higher management levels and various agencies throughout the medical system. These inspections are a major technique to measure not only patient care, but overall management of the hospital. In effect, this approach to performance measurement corresponds to the clinical audit mentioned earlier. Lastly, there is an extensive and relatively elaborate computer-based budget and cost accounting system that is intended to measure hospital performance, especially the efficient use of resources. This system, along with the accreditation reports and medical audit system, will provide the major tools to analyze organizational performance in the following chapters.

Although these methods of performance measurement fail to measure patient care directly, they are techniques which are widely employed by most hospitals, civilian and military alike. A particular advantage exists in evaluating this organization, because other hospitals in the

military system are using an identical system; therefore, there is comparable data between hospitals.

### Structure and Roles

A unique aspect of this organization is that it serves in essentially two capacities. The hospital is at the same time a military and a professional organization. In terms of structure, then, this means that there is a bureaucratic tradition operating in the same environment and parallel with professional values. The organization is bureaucratic in the sense that positions are structured in a formal organizational hierarchy from top to bottom. In addition, as might be expected in a governmental agency, there are a considerable number of rules and regulations that govern the operation of the facility. However, as noted previously, hospitals in general are characterized by their reliance on many rules and regulations.

On the other hand, in order for the system to carry out its goal of patient care, professional medical values must permeate the entire system. Again, this paradoxical situation is not dissimilar to that portrayed for hospitals in general. The existence of two lines of authority is formally recognized in one of the hospital's nursing manuals. The manual states, "the personnel of the department of nursing function are under two lines of authority--the administrative line and the medical or therapeutic line. The two lines form separate chains; however, they must function in

harmony." The problems of integration and coordination existing in other hospitals apply equally to this organization. Essentially, the structural uniqueness that exists in the typical hospital also exists in this organization.

In spite of structural similarities, the military system does have an effect on the various roles of the individuals throughout the organization. The impact of the military system lies in what McEwen calls the "authority ethic" which has been incorporated in the ideology of the military services in this country. The basis of this ethic is the emphasis on the principle of superior-subordinate differentiation based on rank.<sup>124</sup> Of interest here is the effect of this authority ethic on the roles of individuals in the organization.

Two factors must be considered. One point is made by McEwen:

As a bureaucratic-type human organization, military organizations, irrespective of their specialized ends, will conform to certain of the imperatives of bureaucratization. One of these is the tendency to standardize both position and position-unit, or groupings of positions. One of the advantages of bureaucratic organization is the operating simplification that can result from such standardization.<sup>125</sup>

The advantage of this system in a hospital is that an elaborate system of symbols and practices has been created

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<sup>124</sup>William F. McEwen, "Position Conflict and Professional Orientation in a Research Organization," Administrative Science Quarterly, I (1956), 210.

<sup>125</sup>Ibid., p. 215.

to define role behavior in terms of the authority ethic. This system is constantly reinforced through training programs and appraisal techniques.<sup>126</sup> It is no longer necessary to distinguish between caps or color of uniforms or to interpret the social position of organization members. Each military member has his rank and generally knows where he fits in the organization. This aspect reduces the conflict which arises out of the fine division of labor that exists in a hospital setting. The conflicting roles and resulting departmental infighting are somewhat reduced, facilitating organizational coordination and cooperation.

The role of the civil service employees, although displaying no formal rank, is also clearer. These individuals work along side their military counterpart and their position is also clarified. Tensions do arise, to some degree, between the civilian and military roles. Civilians are looked down upon somewhat by career military people. This stems from a suspected lack of organizational loyalty arising out of their permanent and relative secure position in the civil service system. The civilian employees are looked upon as the "real bureaucracy" by the military members. On the other hand, the civilians tend to regard the military as transient and somewhat disruptive of the established system. Generally speaking, the civilian members are a

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<sup>126</sup>Ibid.

stabilizing influence in the organization, allowing continuity to prevail from one military reassignment to another.

The second aspect of the authority ethic, and perhaps the most important, is the effect on the professionals within the organization. The medical staff in the organization consists mainly of physicians who have entered the service for two years. They are, in effect, serving an obligation which was made earlier in their medical training. In their position, they are given considerable autonomy relative to other military members. Nevertheless, the ideology of the military structure that rationalizes the division of personnel between leaders and the led (the authority ethic) conflicts with the role expectations on the basis of the professional character of the physician. Consequently, there is normally a subtle resistance and vocal complaints concerning organizational values. At worst, this attitude permeates the entire organization and is dysfunctional; at best, it makes life uneasy for the Director and the Administrator. As in the civilian hospital, it is extremely difficult to discipline a professional because of the high status, not only of his profession, but of his society. The result is an uneasy alliance between professional values and the bureaucratic structure. As with the civilian hospital, this alliance is at times dysfunctional for the organization. Other non-professional members observe actions which professionals "get away with" while they may be disciplined for

the same act. In effect, this double standard creates varying degrees of tension throughout the organization.

### Summary and Conclusion

The purpose of this discussion has been to acquaint the reader with the unique aspects of hospitals in general and one specific hospital in particular. It has been implied that the hospital which will serve as the basis for analysis is more "like" other hospitals than it is "different." Although there are unique aspects of this hospital, the major organizational factors have a parallel in the civilian hospital both in terms of structure and personnel roles and expectations. Certainly, no hospital is identical to any other hospital; however, similarities are greater than differences when major organizational factors are considered.



## CHAPTER IV

### THE MANAGEMENT SYSTEM IN A GOVERNMENT HOSPITAL

#### Introduction

The remainder of the study will be devoted to the presentation and analysis of the collected data. These data will be related to the theory and model developed in Chapter II. More specifically, this chapter will deal first, with the managerial style of the hospital's top management and secondly, with the management system as perceived by hospital personnel. The following chapters will deal with the hospital's organizational climate and performance. The purpose of the concluding chapter will be to integrate these findings and relate the results of the study to the hypotheses.

#### Top Management's Style

It was noted in Chapter II that the character of an organization is established at the top and that many managers feel a pressure to manage in the style of their superiors. To determine the managerial styles of top management and the interrelationship between styles, Reddin's "Management Style

Diagnosis Test" was administered to the six top managers in the hospital. Specifically, the test was given to the Director; Administrator; Administrative Officer; Chief, Hospital Services; Chief, Dental Services; and the Chief Nurse. To understand the significance of the test results, it is first necessary to describe the "Management Style Diagnosis Test" in some detail.

#### Reddin's "Management Style Diagnosis Test"<sup>1</sup>

The "Management Style Diagnosis Test" is based on Reddin's 3-Dimensional Management Style Theory. A central part of this theory is an eight-style model of management behavior. This model is presented in Figure 4.1 below. Implicit in the model is the assumption that all eight styles shown have an equal chance of occurring. Thus, if a sufficiently large number of managers in a sufficiently diverse number of companies were tested, then an equal number of each style would appear.

The front of Figure 4.1 is the plane of less effectiveness, and the back is the plane of more effectiveness. The two basic dimensions are Task Orientation (TO) and Relationships Orientation (RO). A third dimension is Managerial Effectiveness (E). Task Orientation is the extent to which a manager directs his subordinates' efforts toward goal

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<sup>1</sup>Much of the descriptive material covered in this section can be found in Reddin, Managerial Effectiveness.

attainment and is characterized by planning, organizing and controlling. Relationships Orientation is the extent to which a manager has personal job relationships and is characterized by mutual trust, respect for subordinates' ideas, and consideration of their feelings. Effectiveness is the extent to which a manager achieves the output requirements of his position.

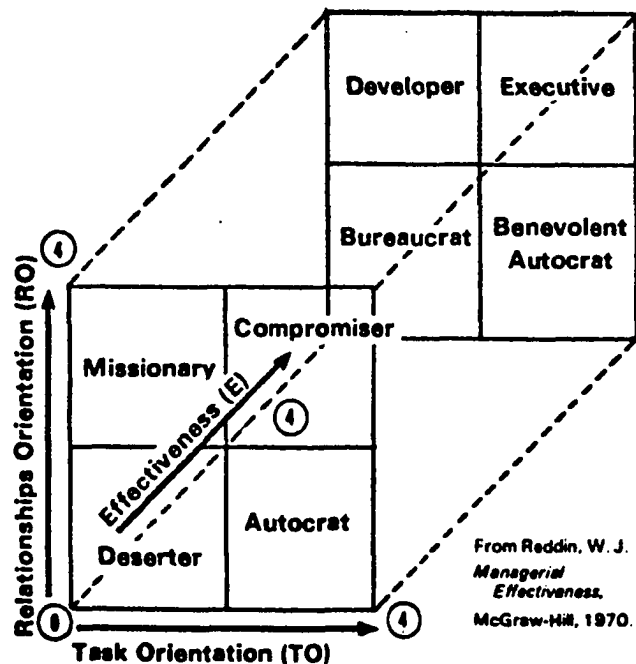


Fig. 4.1.--Reddin's 3-Dimensional Management Style Theory

Reddin's three dimensional graph is based on the assumption that there are four "basic styles of managerial behavior. These basic styles are shown in Figure 4.2 and are labeled Separated, Related, Dedicated, and Integrated.

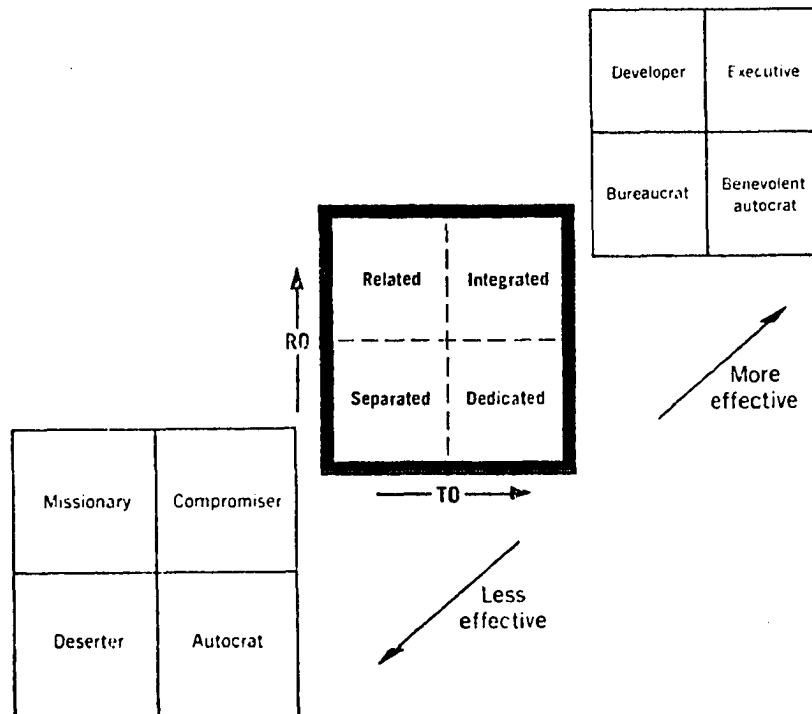


Fig. 4.2.--The four basic styles of managerial behavior. By adding the third dimension, any of the four styles may be more or less effective <sup>2</sup>

The basic styles are based on the assumption that either a degree of Task Orientation (TO), Relationship Orientation (RO), or a combination of both are used by leaders in managing. Reddin says managers sometimes emphasize one element and sometimes the other since these two elements of behavior can be used in varying degrees. As shown in Figure 4.2, when both TO and RO behaviors are high the manager is said to be using an Integrated style. When TO is high and RO is low the style is Dedicated. When RO is high and TO is low the style is Related, and the use of each element to

<sup>2</sup>Reddin, Managerial Effectiveness, p. 13.

a small degree is the Separated style.

These four styles represent four basic types of behavior. Arranging the more and less effective managerial styles around the four basic styles, Reddin brings the third dimension of effectiveness into play. Any of the four basic styles could be effective in some situations and not in others. Each has a less effective equivalent and a more effective equivalent (see Table 1). When one of the basic styles (for example, Integrated) is used inappropriately, a less effective style (Compromiser) results. When it is used appropriately, a more effective style (Executive) results.

TABLE 1  
MORE AND LESS EFFECTIVE STYLES<sup>a</sup>

Basic Style	Less Effective Managerial Style	More Effective Managerial Style
Integrated	Compromiser	Executive
Dedicated	Autocrat	Benevolent Autocrat
Related	Missionary	Developer
Separated	Deserter	Bureaucrat

<sup>a</sup>Reddin, Managerial Effectiveness, p. 13.

The vital distinction between the more effective and the less effective styles does not lie in managerial behavior expressed in terms of T0 and R0. Any amount of either or both do not guarantee effectiveness. Effectiveness results from a style's appropriateness to the situation in which it

is used. The eight managerial styles are not eight additional kinds of behavior. They are simply the names given to the four basic styles when used appropriately or inappropriately. To characterize the eight categories of more and less effective managerial styles, Reddin has defined them in this way:<sup>3</sup>

### Integrated style

Executive--a manager who is using a high Task Orientation and a high Relationships Orientation in a situation where such behavior is appropriate and who is therefore more-effective. Seen as a good motivator who sets high standards, who treats everyone somewhat differently and who prefers team management.

Compromiser--a manager who is using a high Task Orientation and a high Relationships Orientation in a situation that requires a high orientation to only one or neither and who is therefore less-effective. Seen as being a poor decision maker and as one who allows various pressures in the situation to influence him too much. Seen as minimizing immediate pressures and problems rather than maximizing long term production.

### Dedicated style

Benevolent Autocrat--a manager who is using a high Task Orientation and a low Relationships Orientation in a situation where such behavior is appropriate and who is therefore more-effective. Seen as knowing what he wants, and knowing how to get it without creating resentment.

Autocrat--a manager who is using a high Task Orientation and a low Relationships Orientation in a situation where such behavior is inappropriate and who is therefore less-effective. Seen as having no confidence in others, as unpleasant, as being interested only in the immediate job.

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<sup>3</sup>Managerial Effectiveness Ltd., "Manual, Management Style Diagnosis Test" (3d ed.; Fredericton, N. B., Canada: Organizational Tests Ltd., 1972).

Related style

Developer--a manager who is using a high Relationships Orientation and a low Task Orientation in a situation where such behavior is appropriate and who is therefore more-effective. Seen as having implicit trust in people and as being primarily concerned with developing them as individuals.

Missionary--a manager who is using a high Relationships Orientation and a low Task Orientation in a situation where such behavior is inappropriate and who is therefore less-effective. Seen as being primarily interested in harmony.

Separated style

Bureaucrat--a manager who is using low Task Orientation and a low Relationships Orientation in a situation where such behavior is appropriate and who is therefore more-effective. Seen as being primarily interested in rules and procedures for their own sake, and as wanting to maintain and control the situation by their use. Often seen as conscientious.

Deserter--a manager who is using a low Task Orientation and a low Relationships Orientation in a situation where such behavior is inappropriate and who is therefore less-effective. Seen as uninvolved and passive.

To analyze and determine what style a manager uses, Reddin has developed the "Management Style Diagnosis Test." The test consists of sixty-four pairs of statements. The statements pair each style with all eight styles. The manager is asked to pick one of each pair which best describes the way he behaves in the job he now has. Thus, the test provides an opportunity to select one style statement over another style statement a total of sixty-four times. The maximum number any particular style may be chosen is fifteen, the minimum number is one. Thus after selecting among the sixty-four pairs of statements, the manager has a score on

each style of from one to fifteen. This score indicates the degree to which each of the eight management styles is reflected in the manager's perceived behavior.

In effect, the test measures a manager's perception of his managerial style in the job he now has. The results do not necessarily mean that a manager is an "Autocrat," for example, but only that he describes his behavior that way. Reddin notes that managers who change their job and answer the test a second time will probably make a different score on the test. This change in score indicates that when the job demands change, the manager's style will also change to meet these new demands.

To analyze a manager's style, the test produces these diagnostic measures:<sup>4</sup>

#### Style profile measures

1. Style Profile--a bar chart showing the degree to which a manager uses each of the managerial styles.
2. Dominant Style Score--indicates the style most frequently displayed by the manager on his current job.
3. Supporting Style Score--indicates the style displayed next most often to the Dominant Style.

#### Style synthesis measures

4. Style Synthesis--is an average of all styles used and is derived from the Task Orientation, Relationships Orientation, and Effectiveness scores. The Style Synthesis will often not be the same as the Dominant Style. This is more likely to occur when the Dominant Style is only barely dominant and when Style Dispersion is low. Recent research has shown that

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<sup>4</sup>Ibid.



when the Dominant Style and Style Synthesis conflict, the Dominant Style should always be given most weight.

5. Task Orientation Score--indicates the extent to which the manager directs his subordinates' effort toward goal attainment; characterized by planning, organizing, and controlling.

6. Relationship Orientation Score--indicates the extent to which a manager has personal job relationships with subordinates; characterized by mutual trust, respect for subordinates' ideas, and consideration of their feelings.

7. Effectiveness Level Score--indicates the extent to which the manager achieves the output requirements of his position.

The Style Profile measures presented above are interpreted in terms of standard scores. Plotted on the Style Profile is the score obtained for each of the eight styles. The average score for any style is approximately eight. A score of 11 or above indicates a Dominant Style; a score of 10 indicates a Supporting Style. Scores below ten, unless very low, are not significant. Reddin found that of the managers he tested, 70 percent had a single Dominant Style and a single Supporting Style. Twenty-four percent had a double Dominant Style. A few, six percent, had no discernable Dominant Style as measured by the test.

In addition to the Style Profile measures, the test produces a Style Synthesis which is an average of all the styles used by a manager. The Style Synthesis is interpreted in terms of "Dimension Scores" for Task Orientation (TO), Relationships Orientation (RO), and Effectiveness (E). The scores for each measure range from 0 to 4. When the three scores are combined they produce the Style Synthesis. Approximately 50 percent of the managers Reddin has tested

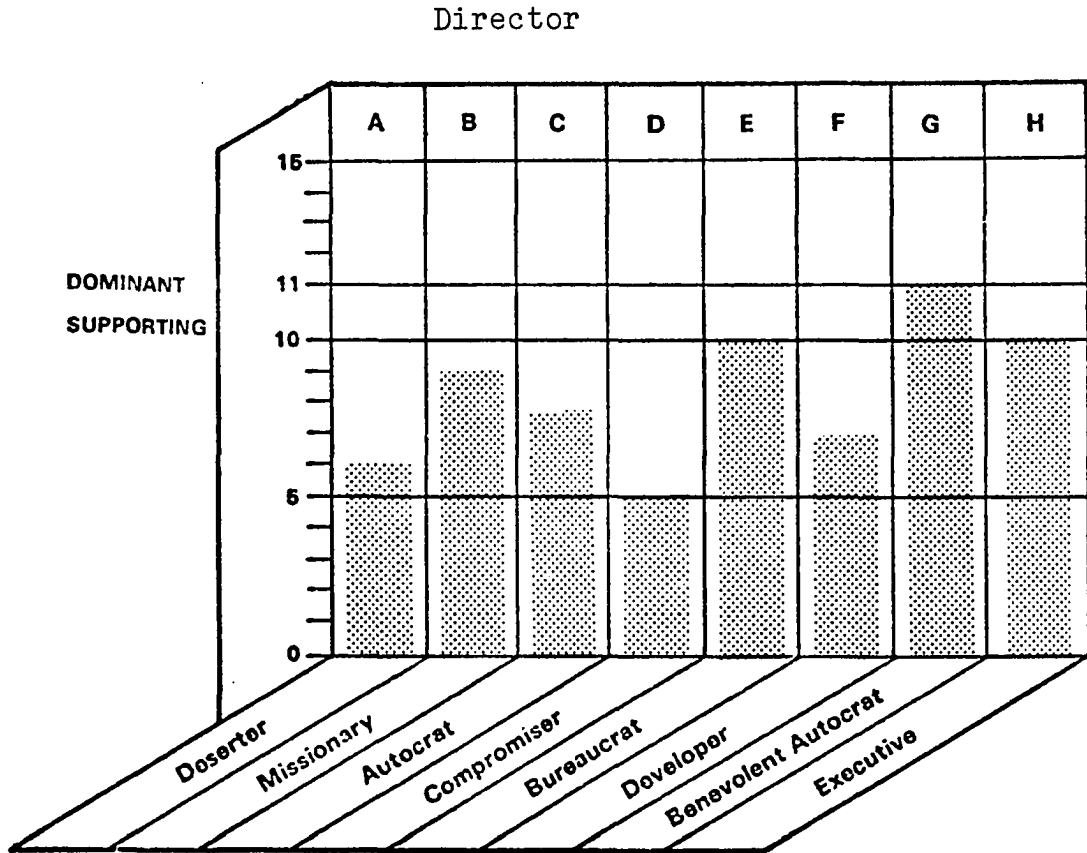
obtained a score of below 2 on any one of the three dimensions (TO), (RO), and (E). Dimension Scores less than 1 or greater than 3 are particularly significant. Reddin notes that of the three Dimension Scores, (E) has the weakest validity. While it does measure effectiveness, only extreme scores should be given close attention.

#### Analysis of Top Management Style

The individual results for each manager are presented sequentially below. The Style Profile and Dimension Scores are used as the basis for analysis. The Style Profile provides a detailed presentation of the Dominant and Supporting Scores along with the other lesser rated styles. Immediately below each managers Style Profile are the Dimension Scores of TO, RO, and E. When combined, these Dimension Scores provide a Style Synthesis which represents the average of all the styles a manager uses. As noted previously, when the Dominant Scores and the Style Synthesis conflict, the Dominant Score should be given the most weight. The Style Synthesis is of value, however, when a manager's Style Profile is flat and provides no Dominant Score. When a flat profile occurs in this analysis, the Style Synthesis is used to describe a manager's style as part of the narrative analysis that follows each manager's Style Profile and Dimension Score.

To preserve the anonymity of each top manager, only the Director's Style Profile is specifically identified. The remainder of the Style Profiles are identified as

Manager A, Manager B, and so on. The following presentations represent the individual managerial styles that the six top managers in the hospital perceived they were using.



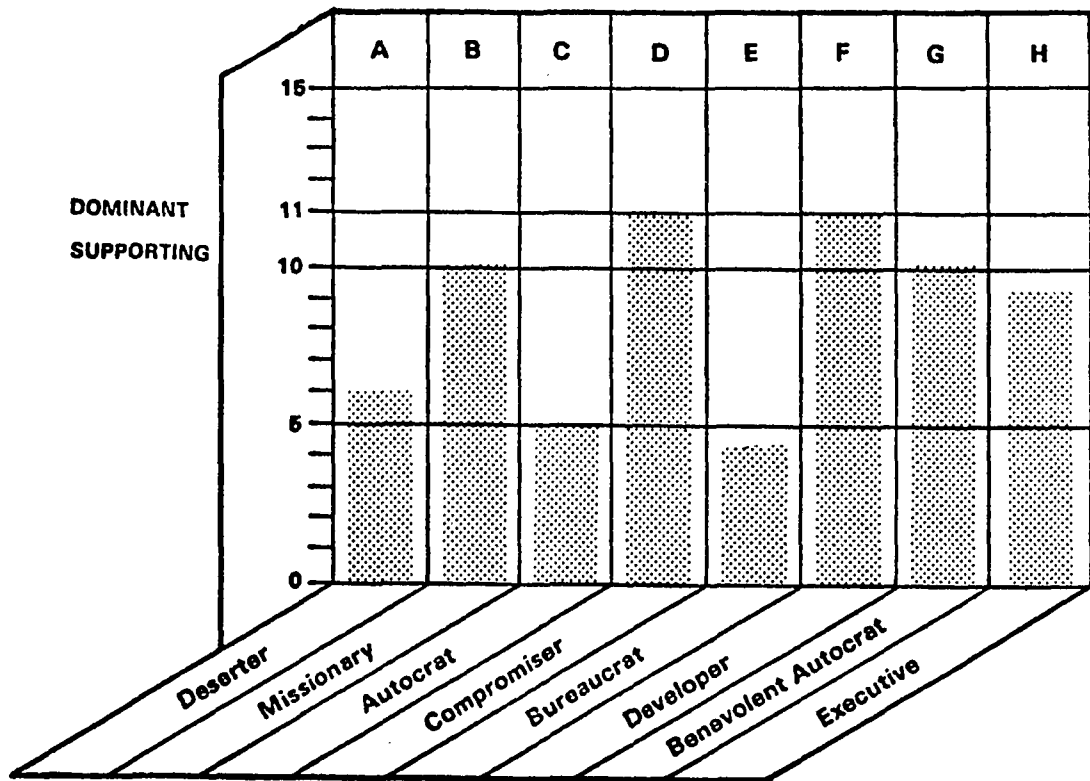
DIMENSION SCORES: TO 2.4 RO .6 E 4.0

Fig. 4.3.--The Director's managerial style

The Director has a Dominant Style characterized as Benevolent Autocrat with a double supporting style of Bureaucrat and Executive. He demonstrated a slightly above average Task Orientation and a significantly low Relationships Orientation. Of greatest significance is the Effectiveness score of 4.0 which implies that he has matched his basic

style with the needs of the situation. In other words, his behavior is appropriate to the situation; therefore, his style is very effective.

Manager A



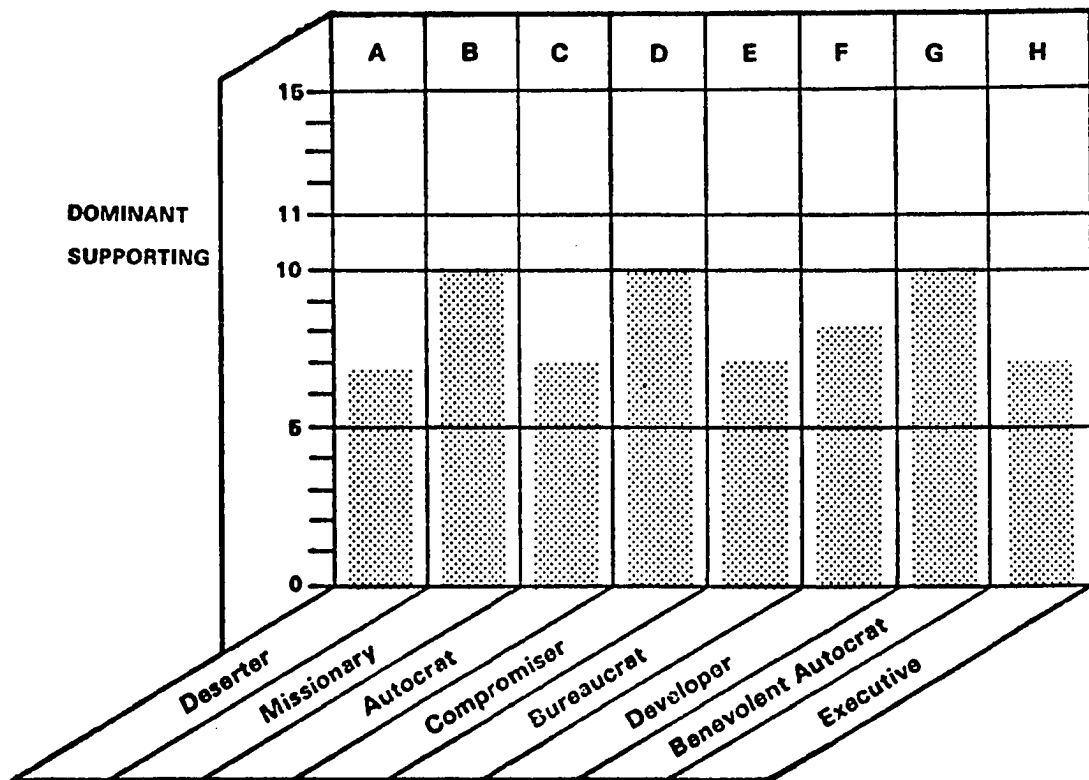
DIMENSION SCORES: TO 3.0 RO 4.0 E 2.4

Fig. 4.4.--Manager A's perceived style

Manager A demonstrates a double Dominant Style of Compromiser and Developer and a double Supporting Style of Missionary and Benevolent Autocrat. He is high Task Oriented and shows a very high Relationships Orientation. His Effectiveness score is slightly above average. This profile leads

to a Style Synthesis of Executive which is an effective style.

### Manager B



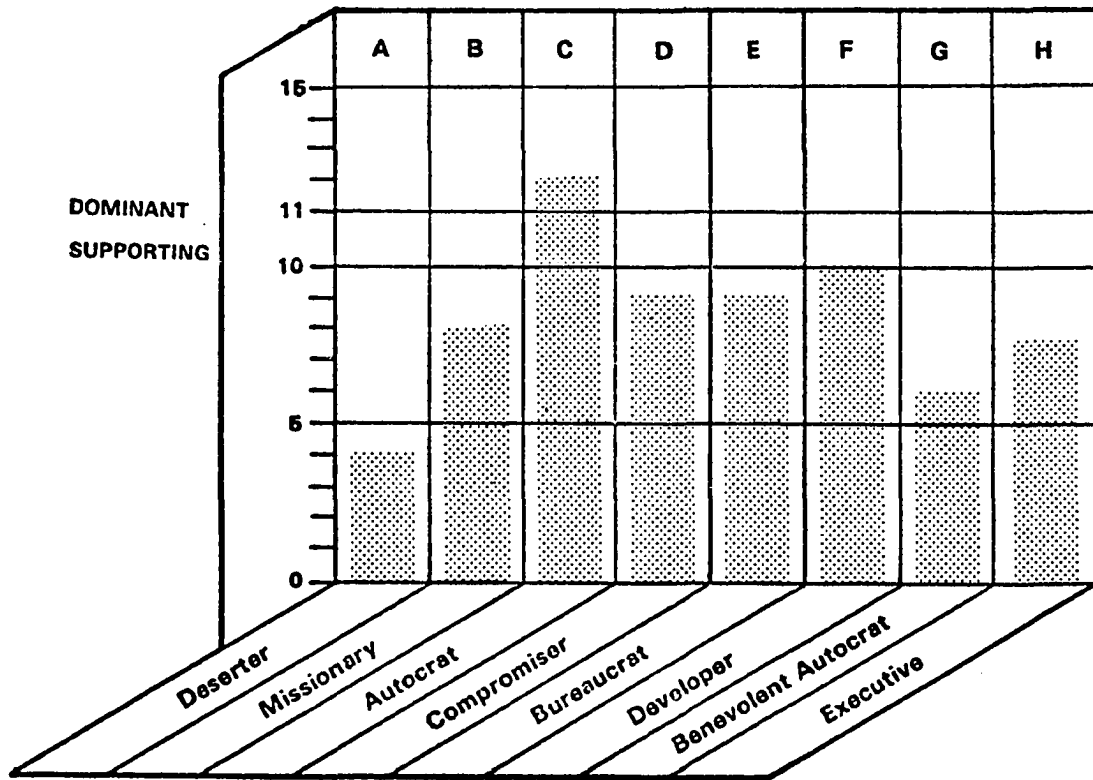
DIMENSION SCORES: TO 2.4 RO 3.0 E 1.2

Fig. 4.5.--Manager B's perceived style

Manager B is not using a Dominant Style in his job as indicated by the flat profile distribution. He tends toward the three Supporting Styles of Missionary, Bureaucrat, and Benevolent Autocrat. His dimension scores indicate slightly above average Task Orientation and a high Relationships Orientation; however, his overall Effectiveness score is below average. These results lead to a Style Synthesis

of Compromiser which is not considered by Reddin to be an effective managerial style.

Manager C

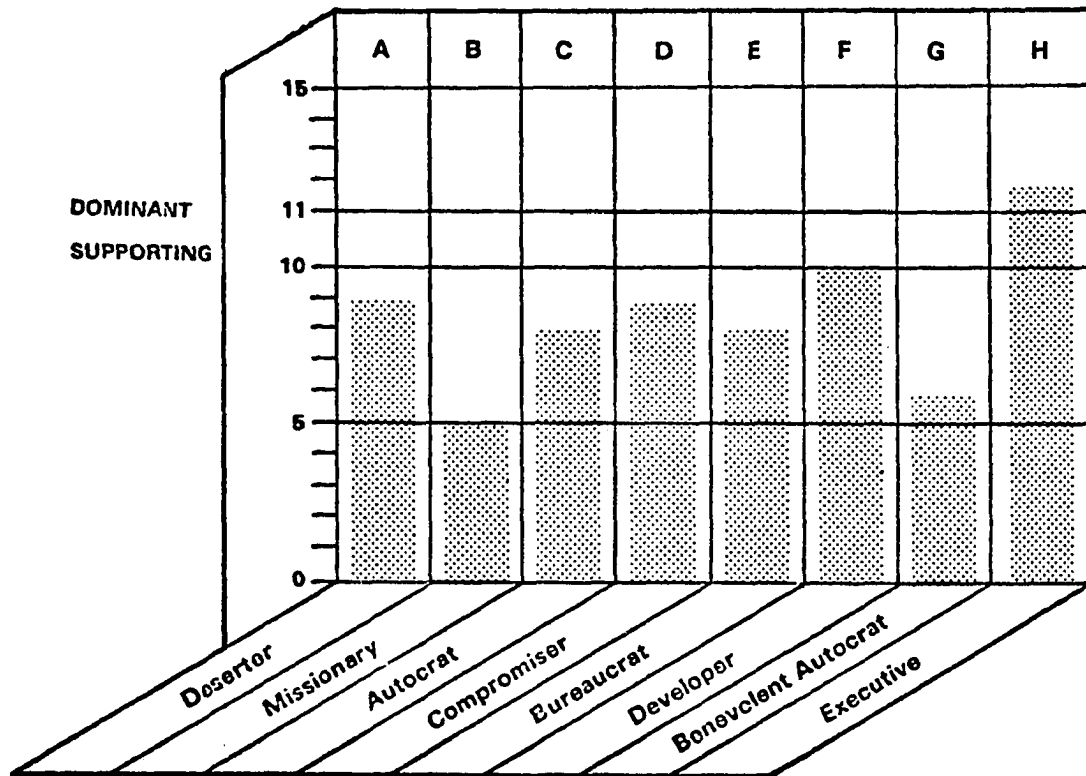


DIMENSION SCORES: TO 3.0 RO 3.0 E 1.8

Fig. 4.6.--Manager C's perceived style

Manager C has indicated a strong tendency toward an Autocratic style of management. This style is supported, however, with a Developer style. He couples a high Task and Relationships Orientation in a position that requires only one or neither and is, therefore, less effective in the job he now has.

## Manager D



DIMENSION SCORES: TO 2.4 RO 3.0 E 3.0

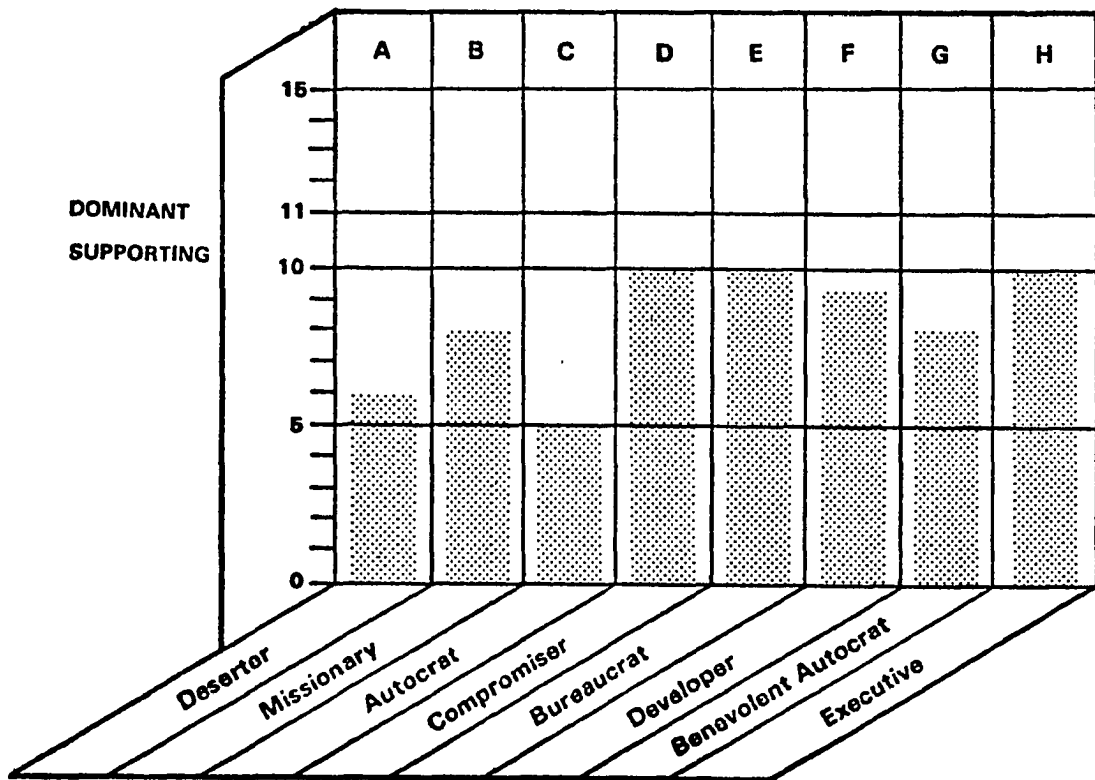
Fig. 4.7.--Manager D's perceived style

Manager D has a Dominant Style of Executive and a Supporting Style of Developer. He is slightly above average in terms of Task Orientation and well above average in terms of Relationships Orientation. These scores combine to place this manager in the category of being very effective in his current position.

Manager E demonstrates no Dominant Style, but he tends toward three supporting styles of Compromiser, Bureaucrat, and Executive. The dimension scores indicate a slightly below

average Task Orientation. The Relationships and Effectiveness scores are very high. This profile results in a Style Synthesis of Developer which is an effective style.

Manager E



DIMENSION SCORES: TO 1.8 RO 3.6 E 3.6

Fig. 4.8.--Manager E's perceived style

#### Individual Relationships

By comparing each profile and by reviewing the accompanying narratives, it is observed that there is no single Dominant Style or Style Profile common to all the managers. Each manager has an individual style and no obvious relationship exists between styles. In addition, it does not



appear that the style of the Director provides any indication of the specific style used by any other manager. This conflicts with some of the previous research presented in Chapter II.

In Chapter II, several research studies were cited indicating that many managers feel a pressure to manage in the style of their superiors. Likert and Bowers and Seashore, for example, found a significant and strong relationship between managerial and peer leadership characteristics. Reddin, using the "Management Style Diagnosis Test" in five divisions of a large public utility, found each division had a Style Profile reflecting to some extent the style of its top man.<sup>5</sup> However, the results of the hospital's Style Profile imply no obvious relationship between either the style of the Director and the other managers or between the managers themselves. There are several possible explanations for this finding.

As noted earlier in the study, a hospital has a unique organizational structure. It has been characterized as a system of checks and balances and more like a political system than a strict bureaucratic or hierarchical organization. In this regard, each of the managers tested were major department heads and represented a particular power center in the hospital. As such, each manager exerted considerable organizational leverage not only downward in the

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<sup>5</sup>Ibid.

department but also upward toward the Director. Each manager, then, may have considerably more freedom to adopt a style which is appropriate to his situation. In other words, a top level hospital manager may not be as pressed to follow the lead of the Director as he might in a highly structured, line and staff organization.

This explanation is also in line with the situationalist theories which imply that a manager's style is multidimensional. Each manager has adopted a particular style primarily based on the needs of the group he represents and within the framework of his individual personality. The situationalist theory suggests that a manager's style varies according to his personality; the requirements of the task to be performed; and the attitudes, needs, and expectations of subordinates; as well as varying according to the superior's managerial style. Department heads of major hospital divisions face highly differentiated tasks. This is especially true in light of the type persons they are dealing with (physicians, technicians, nurses, administrative and housekeeping personnel). Empirically, then, it seems logical that each manager tested is faced with a different problem and is attempting to adapt his style to fit his particular situation.

The lack of relationship between styles may also be due to the fact that the test was administered to a small group. Possibly a trend would have developed had the test

been given to a larger number including lower level managers in the organization. Reddin, for example, found that when a larger number of managers was tested in a given organization, one particular style tended to stand out. His results imply that a relationship may be detected when the management system is considered in total including the middle and lower level managers. It should be noted, however, that this portion of the study is directed toward the relationship between the styles of top management. The test was administered only to top level managers. With this limited objective in mind, no direct relationship between styles was uncovered using the "Management Style Diagnosis Test."

An alternate explanation is that a subtle relationship exists between styles, but, using this testing instrument, this relationship is not evident. If a subtle relationship exists, a more sensitive testing instrument would be required to measure the interstyle influences.

In sum, the proposition that there is a direct relationship between a superior's managerial style and his subordinates' style may be an oversimplification of a complex situation, at least at the top management level in a hospital. This is not to say that there is no relationship. It may be subtle; it may depend on the situation; or it may only be evident when the management system is considered in total.

### The Top Management Team

Reddin suggests that it is possible to consolidate the results and examine top management as they scored as a team. In this regard, the aggregate results provide some interesting insights concerning the hospital's top management as a whole. By averaging the Dimension Scores, T0, R0, and E, a Style Synthesis can be obtained for the overall top management team. For an average organization the score would be 2.0, 2.0, and 2.0 respectively. For this hospital, the scores are 2.5, 2.9, and 2.7.

As a team, then, the hospital's top managers scored above average in all categories with the highest score observed in Relationships Orientation. This score is somewhat significant and is consistent with the discussion in the previous chapter. As noted, there is a need in hospitals for a good deal of interaction between the power bases which these managers represent. It is also important to note that according to the Effectiveness score, top management is demonstrating an overall effective management style. Lastly, the third highest score of Task Orientation implies an above average emphasis on goal attainment.

Combining the three Dimension Scores (T0, R0, and E) leads to a team Style Synthesis of Executive. It is important that the full significance of a team Executive style be noted in some detail.

The Executive style is usually reflected in the

behavior of a management team who sees its job as effectively maximizing the efforts of others in relation to both the short-run and long-run task. A top management team sets high standards for production and performance but recognizes that because of individual differences, it will have to treat everyone a little differently. The team is effective in that its commitment to both Task and Relationships is evident to all and this acts as a powerful motivating force. The executive team welcomes disagreement and conflict over task problems. It sees such behavior as necessary, normal, and appropriate, and does not suppress, deny, or avoid conflict. Top management believes that differences can be worked through, that conflict can be solved, and that commitment will result when both are done. The team is not just a morale builder, although the morale of the team is high. It does not run a sweatshop, but the team works hard. The managers do not want mistakes buried by a team decision since the team feels intimately involved in both failures and success. The executive team knows their own job and wants others to know theirs. Top managers create a situation where the job demands do not blind a manager to the needs of others. In short, executive management is often team management. Team management arouses participation and, by it, commitment is obtained.

This word picture implies that the Executive style is especially appropriate in the hospital situation where

professionalization and specialization require a great deal of interaction and coordination to insure quality patient care. Its use is virtually demanded when managers must decide on the optimum distribution of scarce medical resources and particularly when there is a need for both dependence and independence between managers as is required in the hospital environment.

In sum, the combined scores for all six managers result in a team style of Executive. Whether considered individually or as an aggregate, however, the style of top management provides only one input to the total management system. Another important aspect is the way organizational members perceive the total management system as it exists throughout the hospital.

#### The Management System

To obtain information concerning the overall characteristics of the total management system used throughout the hospital, a larger and more diverse group must be consulted. Likert's questionnaire, "Profile of Organizational Characteristics," was used to determine what management system organizational members perceived being used throughout the hospital. The important aspects of this instrument will be described, followed by an analysis of the results.

Likert's "Profile of Organizational  
Characteristics"<sup>6</sup>

The "Profile of Organizational Characteristics" rates an organization along a continuum from System 1 through System 4. These systems with their identifying range of scores are:

System of Organization

<u>System 1</u>	<u>System 2</u>	<u>System 3</u>	<u>System 4</u>
Exploitive- Authoritative 0-5	Benevolent- Authoritative 6-10	Consultative 11-15	Participative Group 16-20

System 1 describes a management approach which is Exploitive-Authoritative. All members within the organization seem to be relatively dissatisfied. An organization in this category has very little interaction between superiors and subordinates. Communication is downward with most decisions made at top levels. Only high levels of management feel a responsibility for obtaining organizational goals. The lower levels of management feel less responsibility toward organizational goals than upper levels. The rank and file workers feel little, if any, responsibility and often welcome an opportunity to defeat the organization's goals. There is no opportunity at lower levels to participate in work-related decisions. This lack of opportunity discourages teamwork. Organizations described in System 1 provide fairly good training resources and seek average goals.

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<sup>6</sup>Much of the descriptive data in this portion of the chapter has been taken from Likert, The Human Organization.

System 2 is a description of a Benevolent-Authoritative approach. This organizational system produces little interaction between superiors and subordinates. Information is usually communicated downward with little room for initiative at lower levels. Managerial personnel usually feel a responsibility for and strive to achieve the organization's goals. Decisions are made on a man-to-man basis. This approach also discourages teamwork. The management of a Benevolent-Authoritative system seeks high performance goals and gives good management training.

System 3 describes a Consultative approach. This system includes substantial trust in superior-subordinate relationships as well as upward and downward communication. Feelings of responsibility for obtaining organizational goals are felt by most personnel, especially middle and top management levels. Broad policies are made at top levels in a Consultative system; however, the more specific decisions are made at lower levels where information is more accurate and available. Organizations using a Consultative approach provide good training resources and seek high goals.

System 4, Participative Group, describes a management approach where subordinates and superiors exhibit mutual confidence and trust in all matters. Communication is extensive, flowing upward and downward between both individuals and groups. Typically, personnel at all levels feel a real responsibility for achieving organizational goals and strive



to obtain those goals. Teamwork is encouraged in this atmosphere and there is a high degree of worker satisfaction. Organizations using a Participative Group approach provide excellent training resources and seek to achieve extremely high goals. Results from Likert's research, concerned primarily with business organizations, consistently show that units of an organization which are more effective (measured by productivity and job satisfaction) are more like System 4 than are those units which are less productive.

#### Operating Characteristics of the Management System

An overall view of an organization is achieved by analyzing eight major variables or operating characteristics listed in the questionnaire. These eight variables include: Leadership Process, Motivational Forces, the Communication Process, the Interaction-Influence Process, the Decision-Making Process, Goal Setting or Ordering, the Control Process, the Performance Goals and Training.

Leadership Process refers to the extent of confidence superiors have in subordinates as well as the mutual trust and confidence that subordinates have in their superiors. It also refers to the superior's supportive behavior toward others and the extent to which superiors relate to the subordinates in making them feel free to discuss important things about their job. An important aspect of the Leadership Process concerns the extent the superior utilizes a

subordinate's ideas and opinions.

The Character of Motivational Forces is the second variable on Likert's scale. It concerns the manner in which individual motivation is aroused as well as the satisfaction derived from organization membership. Conflicting or reinforcing attitudes and the development of these attitudes toward organizational goals is also a part of the Motivational variable. Included, too, are the attitudes of members toward other members of the organization and the amount of responsibility for accomplishing organizational goals felt by each member.

The third variable is that of Communication Process. This process involves the amount of interaction and communication aimed at achieving organizational objectives. The direction and accuracy of the communication flow, as well as the psychological closeness of superiors and subordinates, are important aspects of the Communication Process.

The Interaction-Influence Process concerns the amount and character of interaction and cooperative teamwork present on the job. It also includes the amount of influential power which superiors (as well as subordinates) can exercise over goals, methods, and job activities. In short, the Interaction-Influence Process involves the extent to which an effective structure enables one part of an organization to exert influence upon other parts.

The Decision-Making Process, the fifth variable,

deals with the level in the organization where most decisions are formally made. This topic concerns the adequacy and accuracy of the information available. It also concerns the extent to which decision-makers are aware of problems (particularly those in lower levels of the organization). The process of Decision-Making depends on the proportion of technical and professional knowledge used to the best level possible for making that decision. Also important is whether subordinates are involved to any extent in work-related decisions (group pattern of organization) or whether the pattern is based on a man-to-man basis.

The sixth organizational variable is Goal Setting or Ordering. This variable concerns the extent to which the different hierarchical levels strive for high performance goals. The manner in which goals and orders are issued is considered as is the existence of forces accepting, resisting, or rejecting these goals.

The Control Process refers to the organizational level primarily concerned with the performance of the control function. This variable concerns the extent to which review and control functions are concentrated, the accuracy of measurements and information used to guide and perform the control function, and the extent to which there is an informal organization supporting or opposing formal organization goals. The Control Process also includes the extent to which control data (accounting, productivity, costs) are

used for self-guidance or group problem solving by managers and non-supervisory employees or are used by superiors in a punitive-policy manner.

The last operating characteristic scaled by Likert is Performance Goals and Training. This variable deals with the level of performance goals which superiors seek to have the organization achieve. It includes the type of training received by the subordinate in relation to the desires of the superior. It also includes the adequacy of the training resources.

#### Analysis of the Management System

To determine what management system organizational members perceived being used throughout the hospital, a random sample of 103 persons was selected from all levels of the organization. Each person was asked to complete Likert's questionnaire by placing an (N) at the point which, in their experience, described the organization at the present time (N = Now). In addition, they were asked to place an (L) on each line at the point where they would like the organization to be (L = Like it to be). The purpose of this approach was not only to discover what an individual believed were the present characteristics of the hospital, but also to find out how he would like the organization to operate.

The (L) answer was of particular interest to the researcher in that this hospital, as noted, is a military organization with a strong bureaucratic tradition. It was

thought that, perhaps, people who work in a bureaucratic environment would express a preference for it; that members would indicate a desire for a more highly structured System 2 or System 3 type of management system.

The importance of the N score centers on Likert's postulate. He states that a high-producing organization has a management system more like a System 4, while a low-producing organization is characterized by a management system more like System 1. This implies a cause and effect relationship between the management system and organizational performance.

The members' perception of the total organizational profile is depicted in Figure 4.9. The figure shows the mean scores for each variable. The range for the confidence intervals for the 51 (N) and (L) scores are all within  $\pm 1.5$  and  $\pm 1.2$  units of the mean, respectively, at the 99 percent confidence level. This confidence level means that there are ninety-nine chances out of one hundred that the true population mean lies between the values presented above.

It should be noted that the average standard deviation for the 51 questions of the (N) profile is  $\pm 4.5$ . The greatest standard deviation was  $\pm 5.6$  and the lowest was  $\pm 3.6$ . In terms of (N) scores, these figures imply that the bulk of the answers for all members (68 percent) fall under the Benevolent-Authoritative (System 2) and Consultative (System 3) systems of management.

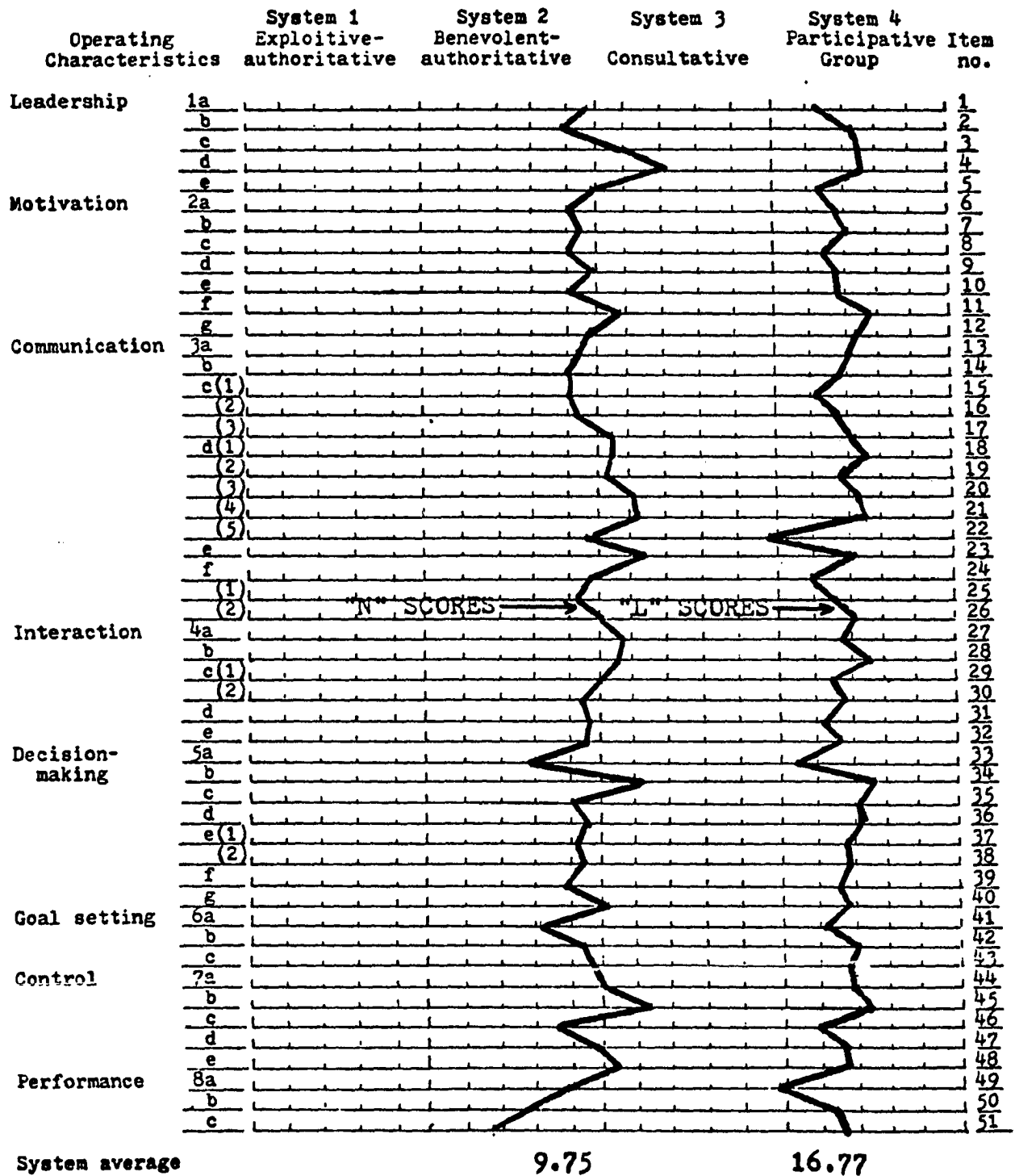


Fig. 4.9.--Mean profile of organizational characteristics indicating the management system being used now ("N" Scores) and the way members would like the organization to operate ("L" Scores)

The (L) profile showed an average standard deviation of 2.7 with the highest and lowest levels being  $\pm 4.6$  and  $\pm 1.9$  respectively. In terms of (L) scores, the bulk of the answers fall under the Participative (System 4) management system with less dispersion evident about the mean.

The (N) mean score for the total management system is 9.75. The formula for converting the mean to a System 1-to-System 4 continuum is:

$$\text{System Score} = (\text{observed mean}) (.20) + 1.0$$

This results in an (N) system score of 2.94 (Benevolent-Authoritative). The mean score for the way members would like the organization to be (L) is 16.77. Converting this mean score results in a management system score of 4.33 (Participative Group).

In capsule form, the members characterize the organization as using a Benevolent-Authoritative management system which tends to be more Consultative than Exploitive-Authoritative. In addition, the members express a desire to see their organization operate using a Participative Group (System 4) management system. Each separate score (N and L) as well as the interrelationship between scores deserves special comment.

#### The Present Management System

It has been pointed out that, in a hospital, the problem of achieving and maintaining adequate organizational coordination is of paramount importance. To overcome the

difficulties involved, the hospital tends to rely rather heavily on formal authority and formal prescriptions for behavior.<sup>7</sup> However, as was also noted, formal planning and programmed coordination are not enough; informal supports and nonprogrammed coordination are also indispensable.

In effect, the formal structure arises out of the need for predictable performance under crisis situations. Similarly, the hospital system also requires a rather rigid authoritative, bureaucratic, formal structure to insure effective use of resources. On the other hand, the informal structure arises out of the high degree of professionalization and specialization that exists in the hospital. There must be a functional interdependence which cannot be obtained within the formal system. There is a need for informal support and interaction among the many differentiated groups in the hospital. Therefore, the hospital is also dependent upon the motivations and voluntary informal adjustments of its members for the attainment and maintenance of good coordination.

The (N) score obtained using Likert's "Profile Questionnaire" is consistent with the dual character of the hospital system. A management system score of 2.94 implies, first of all, some degree of the authoritarian behavior that is characteristic of hospitals. As noted, like many task oriented organizations, the hospital relies a great deal on

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<sup>7</sup>Georgopoulos and Mann, Community Hospital, p. 492.



formal authority, formal policies, and formal written rules and regulations for controlling the behavior and work relationships of its members.

But, a management system score of 2.94 also reflects the consultive tendency which also characterizes the hospital system. The absence of a single line of authority makes for difficulties that can be resolved only through the cooperative efforts of the professionals, technicians, and administrative personnel. In short, the vast majority of the people around the patient have to cooperate with one another as part of the technical requirement of their job. This can only be accomplished through a management system that allows some degree of consultive behavior.

The preceeding considerations combine to suggest that a 2.94 management system would be a most appropriate management system for a hospital. Conversely, it has been noted that a variety of studies in recent years (especially by Likert) have demonstrated the importance of a different type of leadership, which emphasizes a less directive and more participative kind of superior-subordinate relationship. This important issue will be more fully developed in the material that follows. The most significant point to be made here is that there is a rational justification for the management system as it presently exists in this hospital.

There is an additional consideration concerning the (N) scores presented in Figure 4.9. This point concerns

the relative consistency of the scores for each of the operating characteristics. These consistent scores relate to a major point made by Likert--that the management system is internally consistent. This means that every component part of a particular management system fits well with each of the other parts and functions in harmony with them.<sup>8</sup> Each system of management has a basic integrity of its own; each management system must have compatible component parts if it is to function effectively.<sup>9</sup>

To arrive at this conclusion, Likert ran a correlation analysis of all variables and found a high positive intercorrelation between all variables.<sup>10</sup> This procedure was duplicated using the product-moment method. The Pearson product-moment correlation coefficient ( $r$ ) is the best statistical technique for testing the degree of relationship between two frequency distributions, when scores of two variables are normally distributed. Since the population distribution is assumed to be approximately normal, the correlation coefficient was computed for each pair of major

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<sup>8</sup>Likert, The Human Organization, p. 123.

<sup>9</sup>Ibid., p. 124.

<sup>10</sup>Likert presents his results in The Human Organization, p. 193. His presentation includes all individual variables. To simplify presentation, the correlations shown in Table 2 are given for the eight major variables. Individual correlations for each variable were computed as a part of this study with similar results.

variables.<sup>11</sup> The computational formula for computing the Pearson product-moment correlation coefficient is:<sup>12</sup>

$$r = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{n\sum X^2 - (\sum X)^2} \sqrt{n\sum Y^2 - (\sum Y)^2}}$$

where  $n = 103$  is the sample size of each variable. The results of this test are presented in Table 2.

TABLE 2  
CORRELATION COEFFICIENTS BETWEEN MAJOR  
ORGANIZATIONAL VARIABLES

Organization Variable	Correlation Matrix <sup>a</sup>							
	1	2	3	4	5	6	7	8
1 Leadership	1.00							
2 Motivation	.62	1.00						
3 Communication	.81	.78	1.00					
4 Interaction	.71	.76	.88	1.00				
5 Decision-Making	.74	.65	.84	.83	1.00			
6 Goal Setting	.61	.69	.81	.78	.78	1.00		
7 Control	.73	.76	.87	.84	.82	.84	1.00	
8 Performance	.65	.58	.66	.61	.60	.56	.66	1.00

<sup>a</sup>Values of  $r$  at 1 per cent level of significance = .254, using 100 degrees of freedom.

<sup>11</sup>Spurr and Bonini note in their book Statistical Analysis for Business Decisions (Homewood, Ill.: Richard D. Irwin, Inc., 1967), p. 181, that the assumption of normality is useful because it is valid for most practical problems involving large samples, as is the case here.

<sup>12</sup>Leonard J. Kazmier, Statistical Analysis for Business and Economics (New York: McGraw-Hill Book Company, 1967), p. 284.

As shown in Table 2, these data support Likert's previous findings concerning the high correlation which is found using this testing instrument. Assuming Likert's interpretation is correct, the management system in this hospital is, indeed, internally consistent.

Based on the above findings, some general observations may be made. First, under the management system described by organizational members it is anticipated that the organization is experiencing some difficulty in terms of organizational performance. As Likert notes, the highest producing, best performing organizations are those more like System 4.<sup>13</sup> This, Likert says, is because of the orderly, systematic, cause and effect relationship between the management system and the end-result variables (performance).<sup>14</sup>

An organization using this management system might also be characterized as highly structured and bound to standard operating procedures. It may use budgetary standards to set objectives and measures of performance. These devices may be used for punitive control.

Based on the findings, Likert would say that this organization is operating under a traditional organizational theory that underlies the System 1 through System 3 approaches to management.<sup>15</sup> He believes such an approach

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<sup>13</sup>Likert, The Human Organization, p. 106.

<sup>14</sup>Ibid.

<sup>15</sup>Ibid., pp. 158-159.

produces competition and conflict between peers and apathy or resentment among subordinates. Such an organization relies on control and economic incentives as a basic motivational device.

### The Preferred Management System

A comparison of the (N) and (L) scores reveals a large discrepancy between the management system organizational members see the hospital using and the management system they would like to see. The mean score for the way members would like the organization to be is 16.77. Converting this mean score results in a management system score of 4.33. The members express a desire to see their organization operate using a Participative Group management system.

Of further interest, is the organizational members' perception of the major organizational variables. The mean score of each variable is presented in Table 3.

To insure that the differences between the means (N and L) are not simply the result of sampling error and are, in fact, significant, a t-ratio was obtained using the following formula for matched samples:<sup>16</sup>

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<sup>16</sup>On technical grounds, the use of this parametric test violates an assumption on which it is based. The raw data are expressed as classified frequencies (discrete categories) whereas the test assumes the use of measurement data. From a practical standpoint, it is noted by Gaito, this is not a serious problem for little distortion in the end results occur. The test is also based on the assumption that the data are normally distributed. This is

TABLE 3

DIFFERENCES IN MEAN SCORES BETWEEN THE  
MAJOR ORGANIZATIONAL VARIABLES

Organization Variable	Mean (N) Score	Mean (L) Score	t-ratio <sup>a</sup>
Leadership	10.28	16.90	14.9
Motivation	9.62	16.95	18.7
Communication	10.22	16.79	16.4
Interaction	10.21	16.75	15.9
Decision-Making	9.52	16.84	17.5
Goal Setting	9.05	16.47	15.4
Control	10.07	16.77	15.9
Performance	7.92	15.94	14.6

<sup>a</sup>Value of t at 1 per cent level of significance for 100 degrees of freedom = 2.6.

$$t = \frac{\bar{X}_N - \bar{X}_L}{\sqrt{S_{\bar{X}_N}^2 + S_{\bar{X}_L}^2 - 2 r_{NL} S_{\bar{X}_N} S_{\bar{X}_L}}}$$

where:

$\bar{X}_N$ ,  $\bar{X}_L$  = The mean for a given N and L variable;

$S_{\bar{X}_N}$ ,  $S_{\bar{X}_L}$  = The standard error of the mean for the  
N and L variable; and

$r_{NL}$  = The Pearson product-moment correlation between  
the N and L scores for each variable.

not an unreasonable assumption when the sample is random, as it is here, and the sample size is relatively large which is also true.

Based on the *t* values in Table 3 we may conclude, at the 1 percent level, that the sample mean of each variable differs significantly and that the difference between them is not the result of sampling error.<sup>17</sup>

### Characteristics of the Participative Management System

In each of the eight variables shown in Table 3, organization members expressed a consistent and definite desire to have the organization adopt operating characteristics which are characterized by more participative (System 4) management systems. To understand the significance of this finding, it is first necessary to define the detailed characteristics of the preferred System 4 organization as it is described by Likert. The attributes of Likert's System 4 organization have been summarized under 16 major points.<sup>18</sup>

1. Superiors have complete confidence and trust in their subordinates.
2. Subordinates feel completely free to discuss things about the job with their superior.
3. Managers always try to get ideas and opinions from subordinates and try to make constructive use of them.
4. Motivation is through economic rewards based on a compensation system developed through participation.
5. Personnel at all levels feel a real responsibility for the organization's goals and behave in ways to implement them.
6. Communication flow is upward, downward, and horizontal.

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<sup>17</sup>Janet T. Spence, Benton J. Underwood, Carl P. Duncan, and John W. Cotton, Elementary Statistics (2d ed.; New York: Appleton-Century-Crofts, 1968), p. 105.

<sup>18</sup>Burt K. Scanlan, Principles of Management and Organizational Behavior (New York: John Wiley and Sons, Inc., 1973), pp. 386-387.

7. The extent of downward communication is generally accepted, but, if not, it will be openly questioned.

8. Managers know and understand the problems of subordinates very well.

9. There is extensive, friendly interaction with a high degree of confidence and trust.

10. Very substantial amounts of teamwork exist throughout the organization.

11. Decision making is widely done throughout the organization although well integrated through a linking process provided by overlapping groups.

12. Subordinates are involved fully in all decisions related to their work.

13. Except in emergencies, goals are usually established by means of group participation.

14. Goals are fully accepted both overtly and covertly.

15. There exists quite a widespread responsibility for review and control, with lower units at times imposing more rigorous reviews and tighter controls than top management.

16. Informal and formal organization are the same; hence all social forces support efforts to achieve the organization's goals.

In addition to these 16 variables, Likert also isolated three basic concepts which are representative of his total concept of System 4, or Participative management. These include (1) the use by the manager of supportive relationships; (2) the use of group decision making and group methods of supervision; and (3) high performance goals. The first concept, supportive relationships, is explained as a general principle which the members of an organization can use to guide their relationships between one another. Experiences and relationships are considered to be supportive when the individual involved sees the experience (in terms of his values, goals, expectations, and aspirations) as contributing to or maintaining his sense of personal worth and importance.



The second variable, group decision making and group supervision, implies that all subordinates in a work group who are affected by the outcome of a decision are involved in it.<sup>19</sup> The emphasis is on the involvement of people in the decision-making process to the extent that their perception of what the problems are that hinder accomplishment are sought, their ideas on alternative solutions to problems are cultivated, and their thoughts on the "how to" of implementing decisions which have already been made are solicited.<sup>20</sup>

The final variable, high performance goals, means that the superior in the work group has high performance aspirations. It is not enough, however, that only the superior have higher performance goals, but that each member should also have higher performance aspirations. This is accomplished through group decision making and multiple overlapping group structure. Overlapping group structure implies that each work group is linked to the rest of the organization by means of persons who are members of more than one group and who are identified as "linking pins."

Having defined these three key variables in a participative, System 4 organization, Likert relates the expected performance levels of a System 4 organization to performance levels of the other three types of management systems (Systems 1, 2, and 3). Likert notes the highest

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<sup>19</sup>Likert, The Human Organization, p. 51.

<sup>20</sup>Scanlan, Principles of Management, p. 388.

producing, best performing organizations are those more like System 4.<sup>21</sup> He also presents a large body of research supporting the position that there is a cause and effect relationship between the management system and organization performance.<sup>22</sup>

#### Members' Preference for System 4

The characteristics of Likert's System 4 have been outlined and associated performance expectations of a Participative organization have been stated. In the discussion that follows, the possible reasons for the members strong preference for System 4 will be examined. In addition, the inference concerning the cause and effect relationship between the management system and organizational performance will be noted.

There are two likely reasons why hospital personnel have indicated a desire for a System 4 organization. The first lies in the assumptions underlying System 4. A participative management system is founded on a basic trust in people. It assumes that the average person has an intrinsic interest in his work: he can be trusted to be self-directing and to seek responsibility. In addition, he has a capacity to be creative in solving organizational problems. By expressing a strong preference for System 4 management, members of the organization may be truly expressing a desire for

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<sup>21</sup>Likert, The Human Organization, p. 106.

<sup>22</sup>This research has been identified in Chapter II.

self-actualization, more responsibility, and for more opportunities to participate in the decision-making functions of the organization.

Reddin has provided an alternate explanation for the System 4 score. He notes that most everyone would prefer a System 4 type of organization over the other three management systems (Systems 1, 2, and 3). Reddin says that built into the description of the latter systems is a generally negative word picture and that the opposite is true of System 4. Reddin feels Likert's four systems are caricatures, not scientific statements.<sup>23</sup> The point is, that on a self-report questionnaire such as Likert favors, System 4 is not a fact but a statement of how well we like things as they are.<sup>24</sup> This may be unrelated to self-actualization needs or to performance as Likert implies.

Reddin's criticism leads to another consideration concerning organizational performance. He states that a high performing firm in Germany or Japan, working under total System 1 conditions, would score itself high on System 4 because the members are satisfied with the way things are.<sup>25</sup> In terms of performance then, it is important to note these criticisms of Likert's inference that there is a cause and effect relationship between the management system and

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<sup>23</sup>Reddin, Managerial Effectiveness, p. 198.

<sup>24</sup>Ibid.

<sup>25</sup>Ibid.

organizational performance.

### Projected Performance

It has been noted previously that this hospital is characterized as a System 2.94 (Benevolent-Authoritative) organization. As such Likert would say that this organization is operating under a traditional organizational theory that underlies the System 1 through System 3 approaches to management.<sup>26</sup> If what Likert says is true, it is to be expected that the hospital would be experiencing some difficulty in terms of organizational performance. The reason for the conclusion is based on Likert's distinction between what he calls causal, intervening, and end result variables.

In this case the causal variable is related to the type management system present in the organization (Benevolent-Authoritative). Likert says this type organization uses direct hierarchical pressure for results, including contests and other such practices of the traditional systems. These practices result in certain subordinate attitudes characterized as intervening variables. The intervening variables which could be expected in a System 2.94 organization are less group loyalty, lower performance goals, greater conflict and less cooperation, less technical assistance to peers, greater feeling of unreasonable pressure, less favorable attitudes toward managers and lower

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<sup>26</sup>Likert, The Human Organization, pp. 158-159.

motivation to produce. These intervening variables, in turn, can be expected to influence the end result variables which Likert says would be lower organizational performance in terms of low productivity and high costs. These end result variables are only slightly modified to the degree that the organization tends to be more Consultative than Exploitive-Authoritative. An attempt to determine the accuracy of Likert's predictions will be addressed in the following chapters when a judgment as to the level of the hospital's performance will be made.

### Summary and Conclusions

In this chapter two parts of the model presented in Chapter II have been explored. First, the relevant aspects of top management style were examined. On an individual basis it was found that there was little consistency between the styles of the various managers. As a group, however, the management team was characterized as using an Executive style. Secondly, two aspects of the management system were explored: (1) how the organization is operating now and (2) how members would like it to operate. The underlying reasons for the results were examined along with their significance in terms of organizational performance. A discussion concerning the variance between top management's perceived style and the perceived management system will be deferred until the concluding chapter where all aspects of the total model will be interrelated.

To provide a clear description of the organization, this chapter concludes with a word picture characterizing a 2.94 management system using Likert's terminology.

There is some interaction between superiors and subordinates, but this interaction is limited and not completely free and open. Information is communicated mostly downward with limited initiative allowed at lower levels. Top and middle management personnel feel a responsibility for achieving organization goals but there is only moderate commitment to goals from operating personnel. Most decisions are made at the top levels in the organization. A limited amount of teamwork is involved. Management seeks high performance goals and training received by members is categorized as good to very good. Organizational members are motivated through personal recognition and economic incentives.

CHAPTER V

ORGANIZATIONAL CLIMATE IN  
A GOVERNMENT HOSPITAL

Introduction

The purpose of this chapter is to continue data presentation as it relates to the model developed in Chapter II. More specifically, aspects pertaining to organizational climate will be presented. Initially, the discussion will focus on organizational climate and its relationship to individual motivation. The purpose of this discussion is to relate various forms of organizational climate to specific types of motivation that are aroused in a particular climate. Using this discussion as a foundation, the concepts will be applied to analyze the study hospital.

Organizational Climate and Motivation

There are two important aspects to the concept of organizational climate--the individual and the environment. In the previous chapter, key factors of Likert's management system were presented. However, Likert's concepts of the management system do not fully account for individual

differences nor do they address some important issues of the environment.

The first difficulty in relating Likert's theory of the management system directly to organizational performance is that the concept fails to account for individual differences. Likert's theory is based on the fundamental assumption that all people can be motivated through participative techniques and that all people seek self-actualization. As Bennis notes, the theory of participative management has little to say about handling anger, destructiveness, inconsistency, or playfulness. It says little about people (employees) who are competent loners, incorrigible weaklings, liars, villains, or those Thurber-like characters who simply don't want to be helped, counseled, or nurtured.<sup>1</sup> Although the concept of organizational climate does not address these issues directly, it does recognize that individual motivation differs and that people respond differently to the same stimulus.

A second problem of Likert's theory is the dependence on a psychologically determined set of superior-subordinate relationships operating in an environmental void. In other words, Likert views the management system as the sole determinate of organizational performance. There are no technological, economic, or cultural factors that bring strong

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<sup>1</sup>Warren G. Bennis, "Chairman Mac in Perspective," Harvard Business Review, L (September-October, 1972), 140-149.



environmental forces to bear on the micro-organization. This is not to say that leadership and group behavior are not important variables, but rather that they are not the only factors that relate to organizational performance. In this regard, Scott notes that an analysis of internal structure which does not take into account relevant aspects of the environmental context of the organization is likely to be limited and misleading.<sup>2</sup> The concept of organizational climate can, and does, account for individual differences and environmental factors, in addition to the superior-subordinate orientation of the management system.

#### The Relationship Between Motivation and Climate<sup>3</sup>

A brief outline of the theoretical foundations of Litwin and Stringer's theories of organizational climate was developed in Chapter II. A more detailed statement of the basic propositions is necessary before attention can be directed to the organizational climate questionnaire and the resulting data.

In terms of the theoretical model presented in Chapter II, organizational climate is the integrating element

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<sup>2</sup>W. Richard Scott, "Professionals in Hospitals: Technology and the Organization of Work," in Organization Research on Health Institutions, ed. by Basil S. Georgopoulos (Ann Arbor, Mich.: Institute for Social Research, The University of Michigan, 1972), p. 143.

<sup>3</sup>Much of the descriptive material concerning Litwin and Stringer's theory of organizational climate is based on their book, Motivation and Organizational Climate.

between the environment (E) and the individual (I). It provides a way of describing the effects of organizations and organizational life on the motivations of the individuals who work in these organizations.<sup>4</sup> It also serves as a bridge between theories of individual motivation and behavior on the one hand, and organizational theories on the other.<sup>5</sup> Figure 5.1 attempts to clarify the nature of the concept involved.

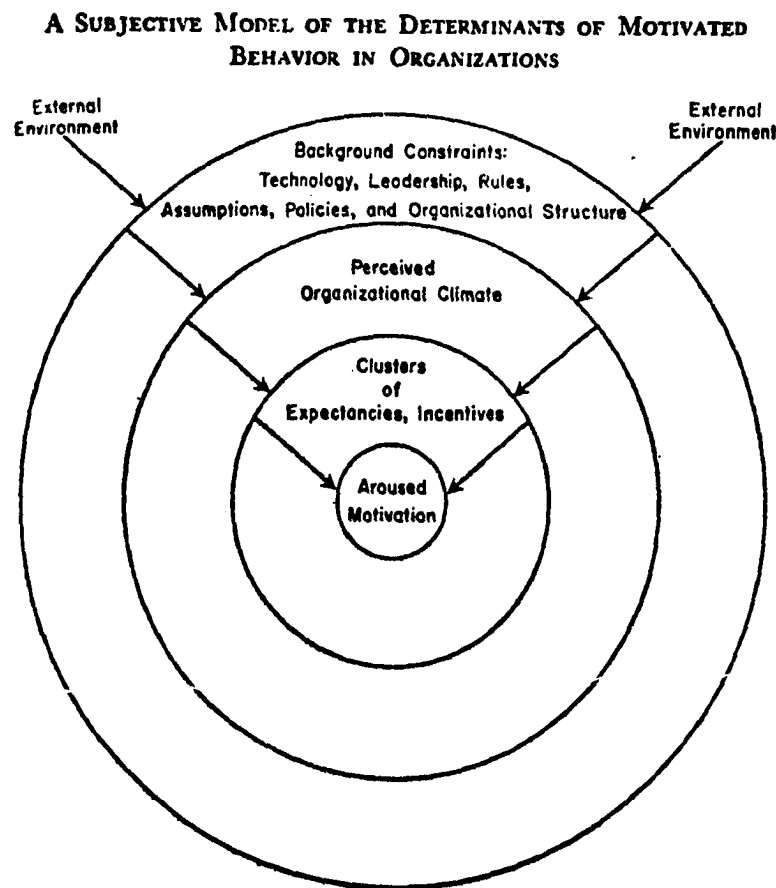


Fig. 5.1.--The foundations of motivation and organizational climate<sup>6</sup>

<sup>4</sup>Litwin and Stringer, Organizational Climate, p. 5.

<sup>5</sup>Ibid.

<sup>6</sup>Ibid., p. 43.

Figure 5.1 is an outline of the subjective model of the determinants of motivated behavior in organizations. The two inner spheres represent "the person," the intermediate sphere represents the direct determinant of motivation, organizational climate. The outer sphere represents the more indirect influences on motivation which are also the direct determinants of organizational climate. It is important to note that Leadership (the management system) is only one element of organizational climate. Although the emphasis of this study centers on the effects of top management and the management system, the concept of organizational climate encompasses the other environmental factors shown in Figure 5.1.

In sum, the concept of organizational climate includes the environmental or situational variables as well as the motives of individuals. Just as climate provides theorists with a conceptual link between the elements of the organizational system and the determinants of individual behavior, it also provides managers with a link between their organization's procedures and practices and the concerns and needs of individual workers.<sup>7</sup>

#### Theories of Motivation

A fundamental part of Litwin and Stringer's theory is that particular organizational climates can arouse certain

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<sup>7</sup>Ibid., p. 44.

motives in individuals which can--assuming a correct match between climate and motive--lead to a higher level of organizational performance. Litwin and Stringer refer to specific motives derived from the McClelland-Atkinson theory of human motivation. These researchers were interested in motivation theory and developed systematic concepts concerning environmental influences on motivation. They found that the characteristics or stimuli presented by the situation determine, in large part, which motives will be aroused and what kind of behavior will be generated. McClelland and Atkinson have identified three important determinants (motives) of work related behavior: the need for achievement, the need for affiliation, and the need for power. Achievement is defined as a need to achieve success in a situation which involves a comparison to a standard of excellence; affiliation is a need for warm, friendly relationships; and the need for power is a desire for control or influence over others. These three motives form the foundation on which the climate concept is based.

#### The need for achievement

If a person spends his time thinking about doing his job better, accomplishing something unusual and important, or advancing his career, psychologists say he has a high need for achievement. Those who have a strong need for achievement exhibit certain characteristics in their behavior:

(1) they like situations in which they take personal

responsibility for finding solutions to problems; (2) they tend to set moderate achievement goals and to take calculated risks; and (3) they want concrete feedback as to how well they are doing. In sum, a man with a strong need for achievement thinks not only about the achievement goals, but about how he can attain them, what obstacles or blocks he might encounter, and how he will feel if he succeeds or fails.

#### The need for affiliation

If a man spends his time thinking about the warm, friendly, personal relationships he has, or would like to have, psychologists say he has a need for affiliation. Since they want others to like them, people with a strong need for affiliation are likely to pay attention to the feelings of others. Men with strong affiliation need seek out jobs which offer opportunities for friendly interaction. For them, maintaining good relationships is more important than decision-making. A person with a strong affiliation motive believes one must work hard and do a good job in order to be accepted by others, but work should not be allowed to interfere with harmony, respect, and affection.

#### The need for power

If a person spends his time thinking about the influence and control he has or would like to have over others and how he can use this influence to change other people's behavior or to gain a position of authority and status, then

psychologists say he has a high need for power. People with a strong need for power will usually attempt to influence others directly by making suggestions, by giving their opinions and evaluation, and by trying to talk others into things. They are seen by others as forceful and outspoken but also as hard-headed and demanding. Men with a strong concern for power prefer positions which allow the exercise of power, and they will work hard to attain these positions. They enjoy roles requiring persuasion, and they will seek out positions which involve control of the means of influencing others.

Working on the basis of these motivational concepts, Litwin and Stringer isolated several dimensions of organizational climate. These dimensions were related to the arousal of the three motives discussed above. More specifically, the dimensions include structure, responsibility, warmth, support, reward, standards, identity, and risk.<sup>8</sup> In effect, Litwin and Stringer uncovered certain relationships that exist between each climate dimension and one or more of the three motives.

#### Climate Dimensions and Motives

In their research Litwin and Stringer have shown the interrelationships between the eight organizational climate

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<sup>8</sup>The specific definition of each of these variables has been noted earlier in Chapter II. A ninth dimension, conflict, was dropped because of ambiguity in the questions.

dimensions and their effects on achievement, affiliation and power motivation. Table 4 summarizes these findings.

TABLE 4<sup>a</sup>  
THE EFFECTS OF ORGANIZATIONAL CLIMATE  
ON THREE MOTIVES

Climate Dimension	Effect on Achievement	Effect on Affiliation	Effect on Power
Structure	reduction	reduction	arousal
Responsibility	arousal	no effect	arousal
Warmth	no effect	arousal	no effect
Support	arousal	arousal	no effect
Reward	arousal	arousal	no effect
Standards	arousal	reduction	no effect
Identity	arousal	arousal	no effect
Risk	arousal	reduction	reduction

<sup>a</sup>Litwin and Stringer, Organizational Climate, pp. 90-91.

In the discussion that follows, the most important aspects of Table 4 will be noted. A brief description of each climate dimension will be given followed by its relationship to achievement, affiliation, or power motivation.

Structure concerns the constraints in the organization in the form of rules, regulations, and procedures. In situations where there is a hierarchy of status and authority (as would be found in a highly structured organization) and where there are factors that suggest competition for

recognition and status, the need for power will be aroused and power-related behavior will be generated. On the other hand, formality and social distance will tend to increase as the hierarchy and work rules become more explicit. This tendency reduces the prominence of close, affiliative relationships--relationships which are important to an individual who has a high need for affiliation. To the extent that structure acts to reduce the challenge of the job or the perceived worth of succeeding at the job, achievement motivation will also be correspondingly reduced.

The second climate dimension is responsibility. Responsibility refers to the degree a person feels he is his own boss or knows that a job is his job and that he is accountable for the way it is done. Achievement motivation is nurtured in a climate that allows an individual to assume a good deal of responsibility. In contrast, when individual responsibility is reduced, as in a group situation, successes must be shared, and there is little effect on the need for affiliation. However, a climate that emphasizes individual responsibility may arouse the power motive. Individuals would seek control of the means of influence because of their fear of being influenced if they didn't.

Two of the climate dimensions, warmth and support, have long been thought to be an important influence in human motivation. Warmth refers to the feeling of good fellowship, a friendly and informal social group; whereas support



pertains to the perceived helpfulness of the managers and other employees in the organization. Both of these climate characteristics arouse the affiliation motive. However, an organizational situation that emphasizes the creation of positive, helping relationships arouses the affiliation motive as members of the group are presented with an infinite number of affiliative opportunities. On the other hand, support and encouragement, rather than warmth and friendliness, are more important for the arousal of achievement motivation. Litwin and Stringer found little basis for hypothesizing that a warm climate would arouse the achievement motive, for those high in achievement motivation are normally more goal-oriented than people-oriented. Also, warmth and support would have little meaning to an individual with a high need for power.

Reward implies a feeling of being recognized for a job well done or of the perceived fairness of pay and promotion policies. A climate oriented toward giving reward, rather than dealing out punishment, is more likely to arouse expectancies of achievement and affiliation and to reduce the expectancies of fear of failure. However, there are two forms of reward--reward for performance and reward for warm interpersonal relationships. Rewards for excellent performance stimulate individuals high in the achievement motive to strive for these rewards as a symbol of their success and personal achievement. On the other hand, a performance-based

reward climate would not be expected to arouse the affiliation motive. When we look at climates characterized by approval, where rewards are prevalent but not specifically performance-based, the motivational implications are different. Where rewards are not so closely linked to performance but to how well people get along (stressing warm, close, interpersonal relationships), then the affiliation need will be aroused. However, the high achiever will not be interested in general approval and reward unrelated to his accomplishments.

Standards refer to the perceived importance of implicit and explicit goals and high performance. This sixth climate dimension is related to the arousal of the achievement motive and stimulation of achievement-related behavior. The theory of achievement motivation is built around the notion of achievement relative to a standard of excellence, and it should be expected that high standards are an important determinant to achievement motivation. However, the relation between standards and affiliation is more complex. It is likely that individuals high in the affiliation motive will respond to the high standards in order to please their fellow workers or their superior. Generally speaking, however, high standards would tend to redirect the focus from warmth and support to the goal itself, causing a reduction in the need for affiliation. High or low standards have little direct effect on the power motive since personal

influence is the most important aspect of power motivation.

Identity refers to the degree that one feels he is a member of a working team. Individuals high in the need for affiliation will respond to an environment that emphasizes group cohesiveness and loyalty, which are elements of the identity dimension of organizational climate. Such an environment tends to emphasize the need for close, interpersonal relationships. Mutual support should be high, and the need for affiliation should be widespread. In addition, if identification were centered around an achievement goal--a goal that the achieving individual believed could be best attained only through group action--then he would respond favorably to an emphasis on group identity. Likert's organizational studies emphasize the importance of building group loyalty, and many of the studies of participative management rest their case on the positive effects of developing strong group loyalties and group identity.

The last dimension of organizational climate that is particularly important for the arousal of achievement motivation pertains to attitudes about risk. Risk concerns the attitude of the organization in situations of uncertainty; for example, is the organization conservative or does it take calculated risks to reach its objectives? Atkinson demonstrated in his research that individuals with high need for achievement characteristically prefer to take moderate risks. Thus, environmental conditions regarding risk and

risk-taking are likely to be important determinants of achievement motivation and achievement-related behavior. Climates that tend to stress a conservative approach to tasks and climates that legitimize blind speculation with planning for the future will frustrate and weaken achievement motivation.

### The Organizational Climate Questionnaire

The study of an organization's climate requires some method of assessment. Based on the theory of organizational climate and motivation presented above, Litwin and Stringer constructed an instrument that collects members' perceptions of and subjective responses to the organizational environment. The climate of an organization is operationally defined as the sum of the perceptions of the individuals working in that organization. In effect, the "Organizational Climate Questionnaire" obtains information on the subjective judgments for the eight climate dimensions.

After analyzing the interrelationships between the eight scale factors, Litwin and Stringer retained all eight major dimensions on which the questionnaire is based. However, they felt that certain variables could be grouped under the four factors shown below. In addition, a description as to the significance of the factor is included.<sup>9</sup>

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<sup>9</sup>Ibid., p. 146.

Factor	Scales Included	Description
A. Structure	Structure	This factor measures perception of formality and constraint in the organization and is empirically quite independent of the other factors. Structure appears to be positively related to the development of power motivation and negatively related to the development of achievement and affiliation motivation.
B. Challenge	Responsibility Risk Standards	This factor measures the perception of challenge, demand for work, and opportunity for a sense of achievement. The challenge factor appears to be strongly, positively related to the development of achievement motivation, moderately related to the development of power motivation, and unrelated (or negatively related) to the development of affiliation motivation.
C. Reward and Support	Reward Support	This factor measures the emphasis on positive reinforcement rather than punishment for task performance. The reward and support factors appear to be positively related to the development of achievement and affiliation motivations and generally unrelated to the development of power motivation.

D. Social Warmth  
Inclusion Identity

This factor measures the emphasis on socialability, belonging, and group membership. The social inclusion factor appears to be positively related to the development of affiliation motivation, weakly related to the development of achievement motivation, and unrelated to the development of power motivation.

The organizational climate questionnaire is made up of 46 questions (see Appendix III). A response system was utilized whereby each subject could answer Definitely Agree, Inclined to Agree, Inclined to Disagree, or Definitely Disagree. Items were scored 1, 2, 3, and 4; and the sum of the scores of the items in a scale was the scale score. The questionnaire was administered to the same 103 persons who had participated in the "Likert Organizational Profile" survey. As could be done with Likert's questionnaire, the results can be compared with the findings of Litwin and Stringer.

### Comparative Results

First, Litwin and Stringer evaluated the scale consistency of the climate questionnaire. Scale consistency refers to the extent that items in a scale are positively related and measuring the same thing. Mean item intercorrelations for each scale are shown in Table 5.

The correlations in this study are considerably lower than those found by Litwin and Stringer. The four highest scales--reward, warmth, support and identity--show good

scale consistency and generally support Litwin and Stringer findings. Although all the scales show a positive mean intercorrelation, four of them--structure, responsibility, risk, and standards--are much lower than anticipated. There are at least two possible explanations for these results.

TABLE 5  
CONSISTENCY OF THE CLIMATE SCALES IN THE  
CLIMATE QUESTIONNAIRE

Scale	No. Items in Scale	Mean Intercorrelation	
		Litwin and Stringer	Hospital
Structure	8	.31	.06
Responsibility	7	.23	.09
Reward	6	.42	.26
Risk	5	.29	.08
Warmth	5	.33	.36
Support	5	.37	.21
Standards	6	.21	.11
Identity	4	.49	.35

First, these particular questions may not clearly tap the climate dimension for which they were designed. Although this is a possibility, it does not seem likely. Litwin and Stringer conducted an extensive validation study of the questionnaire using a large sample (500) of individuals from a wide variety of business organizations. The questionnaire was subsequently improved, and the improved

version was used in this study. Assuming that the questionnaire is valid, a second explanation pertains to the type organization in which the questionnaire was administered.

The low intercorrelations may imply that the members of the hospital are more heterogenous than would normally be found in a business organization (for which the questionnaire was primarily designed). Such words as formal authority, structure, and even management may not carry the same connotation for hospital personnel as they do for members of a business organization. In short, the questions may not have been clear to those responding to them.

On an aggregate basis, however, the fact that low intercorrelations exist in four scale factors does not seriously detract from the overall results. The four mean correlations are still positive. Generally speaking, they also conform to the pattern established in the Litwin and Stringer findings; that is, the lowest correlations in their study were also the lowest correlations found here. These results imply that some rewording designed to clarify these four factors, as they apply to hospital personnel, would be in order for any future research.

A second comparison pertaining to the questionnaire concerns the independence of the climate scales. The comparisons are noted in Table 6 with the results of this study being presented in parenthesis.



TABLE 6

COMPARATIVE INTERCORRELATION OF THE  
CLIMATE SCALE FACTORS

Scale Factor Rows	Scale Factor-Columns							
	1	2	3	4	5	6	7	8
1. Structure	1.00	.18(.20)	.24(.21)	.19(.03)	.28(.13)	.34(.23)	.38(.05)	.31(.16)
2. Responsibility		1.00	.50(.03)	.52(.28)	.46(.00)	.47(.57)	.42(.23)	.51(.47)
3. Reward			1.00	.48(.05)	.54(.47)	.49(.57)	.29(.23)	.56(.46)
4. Risk				1.00	.41(.25)	.43(.18)	.49(.18)	.42(.17)
5. Warmth					1.00	.57(.65)	.22(.19)	.69(.66)
6. Support						1.00	.33(.16)	.59(.67)
7. Standards							1.00	.41(.39)
8. Identity								1.00

Table 6 provides the measures of scale independence in the form of scale intercorrelations. In general, the degree of scale overlap was lower for this study than for Litwin and Stringer. This was a desirable outcome for scale overlap should be as low as possible to insure that different climate dimensions are, in fact, being measured. As in Litwin and Stringer's analysis, the strongest relationships occurred between warmth and identity ( $r = .66$ ); support and identity ( $r = .67$ ); and warmth and support ( $r = .65$ ). These high correlations imply that these three scales tap a common dimension of climate. On a total basis, these intercorrelations generally complement those of Litwin and Stringer and support the measuring properties of the climate questionnaire. In sum, the measure of interscale consistency and

the measure of scale independence indicate that the results obtained here are sufficiently useful for interpreting and analyzing the hospital's organizational climate.

### Organizational Climate and the Hospital

The previous discussion has focused on the mechanics of the questionnaire itself. The discussion that follows centers on the results. The results obtained from the organizational climate questionnaire are of little value unless they can be compared against some meaningful standard. Fortunately, Stringer provided the researcher with the standard climate scores based on norms for approximately 460 managers, professionals, technicians, and clerical people from a number of American business organizations. Table 7 shows the mean climate scale scores for this study and the norms established by Litwin and Stringer. It also summarizes t-ratios for the differences between the scale scores of this research and the norms.

As shown by Table 7, all climate scale factors but one, structure, are significantly below the norms established by Litwin and Stringer at the 1 percent level of significance. These differences are more meaningful when portrayed in terms of percentile scores as shown in Figure 5.2.

TABLE 7

MEAN CLIMATE SCALE SCORES BETWEEN  
THE HOSPITAL AND THE NORM

Climate Scale	Hospital (N = 103)	Norm (N = 460)	Difference	t-ratio
Structure	21.2	20.9	.3	.85 <sup>a</sup>
Responsibility	16.8	18.2	1.4	5.00
Reward	13.2	15.9	2.7	7.30
Risk	11.4	14.1	2.7	12.30
Warmth	13.5	15.8	2.3	7.00
Support	12.9	14.2	1.3	6.20
Standards	16.2	17.9	1.7	5.70
Identity	9.9	12.1	2.2	7.40

<sup>a</sup>Not significant at the 1 percent level.

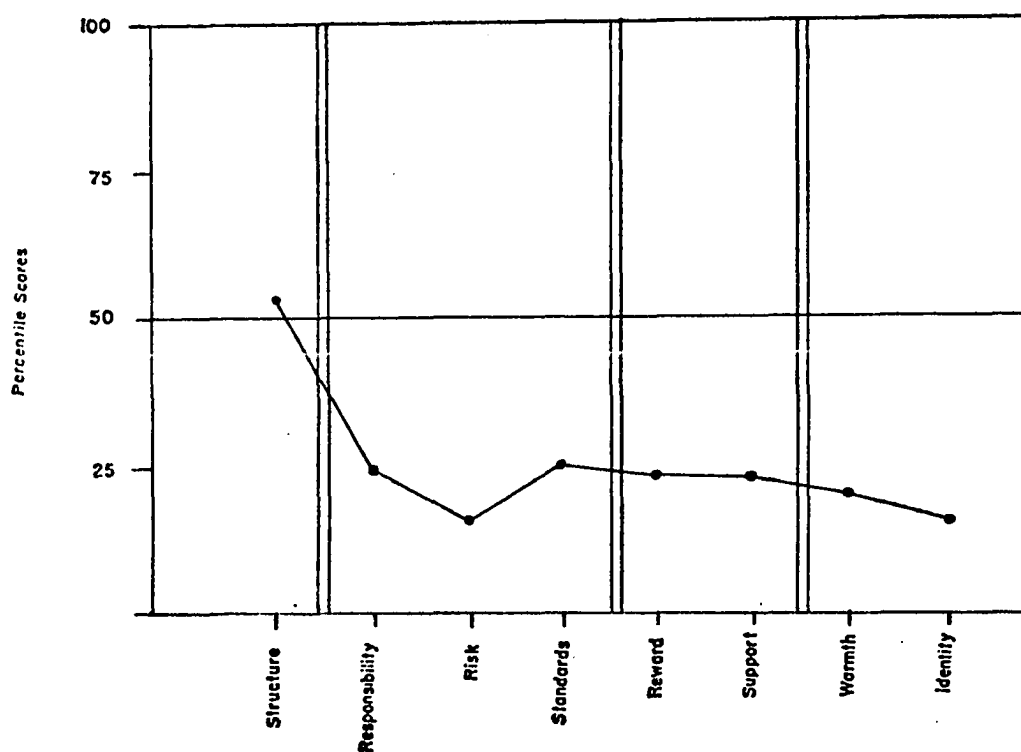


Fig. 5.2.--Profile of the hospital's organizational climate

Although the structure score approximates the norm (50 percent), it is significantly higher than the remainder of the climate scale factors. This implies that hospital members perceive the hospital as having a relatively formal, structured organizational climate. For this reason, the relatively high structure score deserves special attention.

A high structure score indicates an organization which can be characterized as having many rules and regulations. There is an emphasis on procedures, going through channels, and maintenance of order. A formal atmosphere prevails with emphasis on authority and control. Individual status is also important. There is emphasis on stability and conservatism with a correspondingly high resistance toward innovation.

Empirically, Litwin and Stringer have demonstrated that different climates stimulate or arouse different kinds of motivation, generate distinctive attitudes about a person's relationships with others, and strongly influence both feelings of satisfaction and performance level. Achievement motivation, affiliation motivation, and power motivation are aroused by very different kinds of climates. In this particular case, a relatively high structure score implies that the organization has a climate which could be expected to arouse the power motive in persons throughout the organization. In addition to a climate that arouses the power motive, low scores in all other scale factors imply that the

achievement and affiliation motives would be correspondingly reduced. These findings are consistent with Litwin and Stringer's theory of motivation and organizational climate.

An important point is that a power-based climate is not necessarily "bad." Power motivation seems to be stimulated and nurtured in climates that (a) provide considerable structure; (b) that allow all individuals to obtain positions of responsibility and high status; and (c) that encourage the use of formal authority as a basis for resolving conflict and disagreement.<sup>10</sup> A primary factor is that there be a match between the dominant needs and motives of the members and the climate in which they are expected to operate. In other words, a good fit between organizational characteristics, task requirements, and the motivations of individuals is indispensable to a consistently high level of organizational performance. With such a match, one might expect more effective individual and organizational performance. Conversely, performance will suffer in a climate that does not suit the needs of most individuals working in that organization.

In their investigation as to the fit between the organization and its people, Litwin and Stringer found that people are attracted by climates that arouse their dominant needs be it power, achievement, or affiliation. Morse and Lorsch note similar findings, stating there are indications

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<sup>10</sup>Ibid., p. 190

that people gradually gravitate into organizations that fit their particular personalities.<sup>11</sup> In a letter to the researcher, Stringer put it this way, "It was our theory that persons dominated by one of the three motives we were studying would 'prefer' a certain kind of organizational climate (those high in the power motive would prefer a structured environment, those high in the affiliation motive would prefer the warm and friendly environment, and those high in the achievement motive would prefer the responsibility-reward climate)."<sup>12</sup> This point is supported by previous research which shows, for example, that politicians, successful managers, and, particularly, organization presidents are strongly motivated by the need for power.<sup>13</sup>

Litwin and Stringer note that power-oriented climates are reasonably appropriate for hierarchical organizations (such as the military) or where the work is highly routinized and it is necessary to create a sense of potency, importance, and self-worth. Apparently there are people who respond positively and are productive in this type of climate.

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<sup>11</sup>John J. Morse and Jay W. Lorsch, "Beyond Theory Y," Harvard Business Review, XLVIII (May-June 1970), 68.

<sup>12</sup>Letter from Robert A. Stringer, September 28, 1972.

<sup>13</sup>Litwin and Stringer, Organizational Climate, pp. 19-20.

An important point here concerns the match between a power-oriented climate and what is known about persons who work in the hospital environment.<sup>14</sup> The hospital was characterized earlier as a political institution where power, prestige, and status play an important role in the functioning of the system. These factors are closely associated with group influence. As noted, this influence is exerted throughout the system and includes doctors, nurses, administrators, technicians, and others. The various groups are watchful of their respective prerogatives and sensitive about their authority and power relations--no group would like its influence reduced.<sup>15</sup>

Assuming for the moment that Litwin and Stringer's theory is correct--that people are attracted to the environment that meets their dominant motive--the fact that this organization is both a hospital and a military organization, may imply that a power orientation is the most suitable climate. In this case one might conclude that a participative

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<sup>14</sup>It is possible to test each hospital member concerning the strength of his motives. It must be remembered that this study focuses on the hospital as a total organization. The purpose, as explained, is to investigate problems and phenomena of organization-wide significance. It is at this point, however, that the micro aspects of the individual's motivations converge with the larger issues of organizational climate. Certainly one is as important as the other. To continue the examination of individual motivation would call for an entire program of research focusing on the dominant motives (achievement, affiliation, and power) of hospital personnel.

<sup>15</sup>Georgopoulos and Mann, Community Hospital, p. 570.

system would fail because it does not tap the motive that would result in the greatest productiveness by the individual. In unstructured situations, people high in the need for power tend not to give suggestions, ask for opinions, or ask questions. In other words, they do not seek to influence others but are content to play passive and uninitiating roles.<sup>16</sup> Therefore, they tend to be less productive. Perhaps then, this power oriented climate is meeting the needs of hospital personnel, and there is an appropriate match between the people and the climate. If this is true it would be expected that the organization will be characterized by a high performance level.

On the other hand, the data from Likert's "Organizational Profile Questionnaire" implies organization members do not, in fact, prefer this structured, power oriented environment. As indicated by Likert's questionnaire, organization members desired a group participative type management system. A more participative climate would primarily arouse the affiliation motive and, coupled with high performance standards, would also arouse the achievement motive--but not the power motive. In any event, the current structured climate does not meet the implied needs of the members for a more participative type of management.

The results from Likert's questionnaire imply a

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<sup>16</sup>Litwin and Stringer, Organizational Climate, p. 57.



mismatch between the motives which members imply they have and the motive which is being fostered by a structured climate. In the case of such a mismatch, Litwin and Stringer's data lead to the conclusion that there would be low job satisfaction and a low level of organizational performance.

Before turning to the issue of organizational performance, however, one final observation can be made. Based on the replies to Likert's questionnaire concerning how the organization operates now, it was concluded that the hospital employed a formal and directive type of leadership (Benevolent-Authoritative). It may not be surprising then, to find an organizational climate that is characterized by a relatively high structure. The specific relationships that exist between the management system and organizational climate will be developed further in the concluding chapter. It is sufficient to point out here that there does, indeed, appear to be a strong tie between the type management system and the organizational climate that exists in the hospital.

## CHAPTER VI

### ORGANIZATIONAL PERFORMANCE

#### Introduction

The profile of the hospital system presented in the previous chapters provides some insight concerning the organization and its environment and social structure, but it does not provide an adequate indication of the organization's effectiveness in terms of total organizational performance. The purpose of this discussion, therefore, is to present the final segment of the management model by rendering a subjective judgment concerning the overall performance of the hospital.

By examining organizational performance, some insight can be gained concerning the micro aspects of the organization--that is, are members' motivations strong enough, when considered in the aggregate, to provide a high level of organizational performance. However, more than providing a motivational indication, many of the conclusions of this study rest on the aspect of performance. According to Likert, for example, high performing organizations employ more participative management systems while low performing

organizations are characterized as using more autocratic management systems. Additionally, a given level of performance will suggest some important connotations concerning the match between organizational climate and individual needs and motivations. These points can only be analyzed by first looking at the organization's performance in some detail.

### Measuring Performance

Some important preliminary qualifications must be made. It has already been noted that there are certain problems encountered in attempting to evaluate the quality of care which, on the aggregate, patients receive in a hospital. In most organizations, the goal is commonly utilized as the standard by which organizational performance is appraised. In a hospital, however, the goal of quality patient care is individual, intangible, and difficult to measure. There are no uniform standards available nor is there a consensus about the sources and kinds of data that are necessary, sufficient, or feasible.<sup>1</sup>

Because of these limitations, there is no clear cut method for directly measuring the degree of success in goal accomplishment. Georgopoulos and Mann capture the essence of the problem by noting, "the lack of suitable standardized criteria for evaluating hospital care, or the absence of valid and reliable measures make it necessary for the researcher to develop such measures suiting whatever relevant

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<sup>1</sup>Georgopoulos and Mann, Community Hospital, p. 198.

resources that may be available."<sup>2</sup> In addition, they also note that when no single satisfactory measure exists, it is virtually indispensable that several, rather than one measure, be employed if at all possible.<sup>3</sup> In this portion of the chapter, therefore, several measures of organizational performance are used to provide an intuitive, subjective, and, where possible, empirical judgment as to the level of organizational performance and effectiveness.

The objective of this study is not to render a decision as to organizational effectiveness in the absolute sense--that is, the hospital will not be objectively rated on some numerical scale, nor will an attempt be made to determine if the hospital is providing adequate patient care. In fact, it should be recalled, and emphasized, that this organization is an accredited hospital. Such accreditation infers that the hospital at least meets the minimum standards of medical care. Accreditation means the hospital has met essential requirements and prerequisites acceptable to the medical profession.

The aim here, then, is to offer a judgment as to the effectiveness of the organization from a managerial point of view. This in no way implies a distinction between "good" and "bad" patient care but rather the effectiveness with which medical resources are managed. In effect, then, the

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<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

terms high and low levels of performance refer to the effectiveness with which medical resources are managed, not the adequacy of patient care. High or low performance is a relative term which will be used here to subjectively categorize total organizational performance. At best, the goal is to approximately categorize the organization as an efficient, effective, high performing organization; an average organization; or as a less efficient, less effective, and low performing organization. In spite of the difficulties involved in measuring hospital performance, the evidence to be considered here is of sufficient magnitude and depth to infer with some confidence that the performance level of the organization has been appropriately categorized.

#### Analysis of Organizational Performance

It was noted earlier that there have been various methods through which hospitals have been appraised in terms of performance. The three main approaches that will be used here are: (1) the accreditation approach, (2) the medical audit approach, and (3) the use of efficiency indexes. These three performance measures will combine to allow the researcher to determine, at least in a general way, the performance level of this hospital.

In appraising the hospital's performance, a comment must be made concerning the time frame for which performance data apply. Accreditation, audit, and efficiency indexes were gathered for the period ending approximately two months

prior to the actual data collection for the surveys previously presented. There are several reasons for this time delay. First, the accreditation inspection of all hospitals is conducted only once every two years; secondly, the medical audits referred to in this study are the most recent evaluations of the facility; and thirdly, measures of efficiency used in the study are as of the end of the accounting period and are the most recent data available.

This time delay between survey data and performance measures is not considered to represent a serious shortcoming to the validity of the conclusions. No major adjustments were made in the overall organizational system and, generally, operating conditions remained the same throughout the period. The assumption made here, then, is the organization was operating near or at the same level of performance throughout the period of efficiency measures and survey administration.

#### Accreditation Standards

The Joint Commission on Accreditation of Hospitals is a non-profit corporation representing the American College of Surgeons, American College of Physicians, American Hospital Association, and the American Medical Association. It is the authority which awards, withholds, or withdraws accreditation based on its own review of the standards prevailing in the hospital. When visiting a hospital on an accreditation inspection and review, the surveyors act in

the capacity of fact finders and advisors. Their function is to report their findings to the Joint Commission and to help the hospital improve its performance. Although the review is in a sense voluntary, initiated at first on the request of the hospital, it is now an institutionalized and widely-accepted procedure among hospitals.<sup>4</sup> In various respects, hospitals benefit as accreditation increases the stature of such facilities and recognizes efforts to obtain and maintain high standards of patient care.

An important factor concerning the performance of the study hospital is that the facility was inspected and accredited by the Joint Commission on Accreditation of Hospitals approximately two months prior to the study. The hospital was fully accredited, meeting the essential requirements and prerequisites that are acceptable to the medical profession.

In spite of the merits of accreditation, the question of performance is not fully answered. As observed earlier, the focus of this study also centers on the extent to which the hospital goes beyond meeting the essential requirements of patient care. It is, therefore, necessary to refine the analysis in terms of levels of effectiveness to determine the degree to which the hospital is effectively carrying out its patient-care objective.

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<sup>4</sup>Ibid., p. 202.

## The Medical Audit

The second indicator that can be used to evaluate the performance level of the organization is the medical audit. The medical audit is an agency control device which:

1. allows higher levels of management in this branch of the government continuing surveillance over the status of all hospitals within its jurisdiction;
2. provides a measure of effectiveness and efficiency of management in each hospital;
3. is a tool to evaluate safety programs; and
4. provides information upon which to base actions for organizations not achieving maximum effectiveness and economy.

All accredited hospitals are required to engage in some audit activity. However, this particular auditing system is much more comprehensive than the established accreditation standards. This is in line with the current trend for hospitals in general toward more rigorous auditing.<sup>5</sup>

Medical auditing procedures are standardized for all hospitals in this branch of the government. As a result, the medical audit serves as a useful comparative tool allowing audit team members to compare operating conditions at various hospitals. Hence, audit team members can assess a hospital's performance based on their knowledge of operating

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<sup>5</sup>Ibid.



conditions at other hospitals. In sum, this medical audit system is comprehensive and complete and provides a sound method for gauging performance.

The job of the medical audit team, which usually consists of from five to eight persons, is: (1) to identify existing problems, (2) to determine their causes and effect, (3) to provide facts to the hospital director on which to base corrective action, and (4) to analyze the corrective action. The team audits all phases of the hospital's management, training, economy, professional procedures, administration, safety, personnel, and use of supplies and equipment among other factors. The audits are normally on a "no prior notice" basis and each hospital is usually audited twice each year. The audit normally takes one week to complete. The discrepancies on the audit report must be answered individually within a given period. Each answer notes corrective action that was taken to eliminate the problem.

In sum, the medical audit is a major management control device that is used to evaluate the performance, effectiveness, and economy of each hospital.

#### Results of the medical audit

In addition to the accreditation inspection noted above, there were two medical audits conducted by separate audit teams within the three months prior to the collection of the survey data. The first audit was not as extensive as the second, but it does pinpoint some difficulties

experienced by the organization.

Without divulging privileged information, it can be noted that this first report identified over 35 discrepancies concerning the operation of the hospital. Many of the discrepancies concerned the facility's cleanliness, but, in addition, other discrepancies concerning the stock-piling of supplies and equipment, administrative deficiencies in medical records, procedural errors detected in proper control of patient medical tests, lack of disaster training exercises, and a number of other less important discrepancies were found. In effect, this report implied that there may be some managerial difficulties being experienced in the hospital. Again, it must be emphasized that this in no way implies inadequate patient care, which depends largely upon direct doctor-patient relationships.

Approximately one month after the first medical audit and two months prior to this study, there was a major medical audit of the facility. The second report noted that the hospital was providing satisfactory health care service; however, there were a substantial number of deficiencies that required immediate corrective action.

The report was somewhat critical of top management. Again avoiding the specifics of privileged information, this report was critical of similar discrepancies noted in the first report. All areas of the hospital were involved: professional, technical, and administrative. In addition to

criticism of top management, the audit questioned some procedural difficulties experienced in the professional areas. The report noted other administrative difficulties which detracted from the efficient operation of the hospital.

Thus, the facility appeared to be experiencing some management problems at the time of the study. These difficulties imply that the organization was not operating at a top level of efficiency and, therefore, was not an effectively functioning high performance organization.

The difficulty with interpreting the medical audit lies in the subjectiveness of the data. Although there were a large number of significant discrepancies, they are based on the value judgments of the audit team. No audit of this nature is completely objective or free from behavioral and normative judgments of the team members. In addition, as implied by the purpose of the medical audit, it is the function of the team to search for problems and attempt to correct them before they become more serious. This means the team is keyed to look for weaknesses and not the positive aspects of organizational performance.

Certainly, these are subjective data on which to render an opinion as to the level of performance of any organization. Additional data are needed before it can be concluded that the organization has been categorized correctly. It is the intent here to couple the medical audit data with the measures of efficiency which follow in order to provide

more convincing evidence as to the level of performance.

### Measures of Efficiency

It was noted earlier that one of the main difficulties of gauging a hospital's performance level is that hospitals do not ordinarily maintain uniform, or even comparable, data regarding their input or output. In other words, the effectiveness of one hospital cannot be compared to another nor against any base line standard or index. This problem has been overcome to some degree in this study. The study hospital is one of several in this branch of government that is required to submit standardized data regarding its input and output. As such, the accounting systems, financial data, and workload indicators are standardized for all facilities. The main differences that remain are demographic differences in the population served, the type care provided, and the size of the various hospitals.

The data that follow are in the form of cost indexes that have been established based on hospital workload and cost figures. The information is derived from a relatively sophisticated cost accounting and control system. It is based on the philosophy that certain hospital objectives and goals can be reduced to measures of work produced or, more simply, that resources are reducible to the common denominator of cost. Thus, a measure of efficiency can be expressed in terms of how much it costs to produce a specific unit of work (inpatient day, prescription filled). The system is

initially designed to identify factors for which there is a predictable and measurable input-output relationship between resources and accomplishment. In effect, the system provides indexes concerning the efficient use of medical resources. Its purpose is to show the Director of the hospital how well his organization is performing. Thus, these data are the major control tool used internally by the hospital to establish standards of performance and to measure how well the hospital achieves the expectations.

It is important to note that this system is not operationally used as a comparative rating system between hospitals, and the indices are not developed to stimulate competition among medical facilities which might lead to manipulation of cost and workload data. Paradoxically, this improves the reliability, accuracy, and validity of the rating system as it is used in this study. In short, there is no incentive for hospitals to manipulate the data.

One last point must be made before these performance measures are presented. It is not necessary to demonstrate the mechanics of how cost figures are derived. However, a general description of what each set of data represent is necessary, for this amounts to determining the relative success of the organization in terms of a specific measure of performance.

It should also be noted that the cost indexes do not fully depict the true cost of an item (cost per prescription,

for example). The figures were arrived at through procedural judgments and cost accounting conventions. The purpose of the system is to control costs not to establish absolute values of any particular cost factor.

#### Data presentation

A crucial question underlying performance is how well the hospital is functioning in its totality as a unified system--how all parts of the organization perform together and jointly contribute to the solution of major problems and attainment of major objectives. Therefore, when considering efficiency as a measure of performance, one must consider more than individual indexes of efficiency. The individual indexes must also be considered in aggregate to provide some measure of overall efficiency. Thus, the measures of efficiency used here are presented in terms of individual, separate costs as well as joint, composite performance rankings.

In each set of indexes presented below, the hospital that has served as the basis for analysis has been grouped with other hospitals that are of comparable size in terms of the workload factor being used (for example, average daily patient load). In all cases the index represents a cost per unit. One composite ranking has been established for each measure. The composite rank was determined by averaging the ranks assigned to each cost factor. The highest cost facility, in terms of average rankings, is ranked first (1), the second high cost facility second (2), and so on. The

hospital used in this study is noted as Hospital X while other facilities are identified as Hospital A, Hospital B, and so on. Lastly, Hospital X is generally the median hospital in terms of the workload factor under consideration. This means that there are an equal number of hospitals which are slightly larger in size as well as slightly smaller in size (in terms of the workload factor presented in each table).

The first set of cost indexes is presented in Table 8. These comparative indexes are based on the "average daily inpatient load" (ADPL) for each hospital. This means the average number of patients occupying a bed in the hospital per day for the annual report period. The largest ADPL for any of the hospitals considered here was 48 and the smallest, 30. The hospital that is serving as the basis for analysis, Hospital X, has been previously called a 60-bed hospital, referring to its 100 percent occupied capacity. On an ADPL basis, however, it is rated as having only 38 beds occupied on the average.

Table 8 shows that on a comparative basis Hospital X is the second highest cost hospital of the fifteen similar sized facilities listed. In other words, on a comparative basis this hospital expends more resources per inpatient day than do the 13 other lower-ranked facilities. In terms of total inpatient costs, it has the highest cost. It must be emphasized again that we cannot conclude that it costs the hospital \$115.46 to treat one patient. This is a cost index

TABLE 8

COMPARATIVE INPATIENT PERFORMANCE DATA  
HOSPITALS ARRAYED IN DECENDING ORDER  
OF COMPOSITE AVERAGE RANK  
(High Cost Hospital Ranked First)

Composite Rank (High Cost =1)	Hospital	Avg Daily Pnt Load (ADPL)	Cost Per Inpatient Day			Ancillary Services Per IP Day		
			Total	Med. Supply	Other	Lab	X-Ray	Phar
1	A	38	\$ 93.03(6)	\$11.17	\$ 81.86	\$3.95(2)	\$.61(2)	\$ .79(3)
<u>2</u>	<u>X</u>	<u>38</u>	<u>115.46(1)</u>	<u>7.91</u>	<u>107.55</u>	<u>3.54(6)</u>	<u>.54(5)</u>	<u>.85(2)</u>
3	B	38	101.17(4)	7.73	93.44	3.92(3)	.50(7)	.72(4)
4	C	48	93.74(5)	7.75	85.99	3.25(7)	.47(9)	1.12(1)
5	D	32	104.48(2)	9.57	94.91	1.96(14)	1.21(1)	.55(6)
6	E	41	89.69(8)	5.48	84.21	3.80(4)	.42(12)	.45(9)
7	F	30	90.05(7)	8.90	81.15	2.59(10)	.58(3)	.41(13)
8	G	30	84.50(12)	5.64	78.86	3.23(8)	.48(8)	.61(5)
9	H	43	88.71(10)	5.51	83.20	4.18(1)	.47(10)	.39(11)
10	I	36	88.88(9)	5.58	83.30	3.40(6)	.54(6)	.38(14)
11	J	35	104.36(3)	7.60	96.76	2.13(13)	.22(14)	.48(8)
12	K	36	80.23(14)	8.38	71.85	2.81(9)	.58(4)	.39(12)
13	L	30	88.53(11)	8.41	80.12	2.49(12)	.12(15)	.50(7)
14	M	37	73.97(15)	6.34	67.63	3.69(5)	.46(11)	.26(15)
15	N	39	84.34(13)	7.82	76.52	2.58(11)	.28(13)	.45(10)



and only represents a management tool. The significance of these high costs will not be analyzed until the remainder of the cost data has been presented.

The second set of cost data is shown in Table 9. In this table the cost indexes are based on the "average daily outpatient visits" (ADOV) for each hospital. This is an average number of patients who were treated on an outpatient basis per day. The maximum and minimum range of values for the ADOV is 594 to 511 patients per day.

The implication to be drawn from Table 9 is that Hospital X is one of the most efficient hospitals of the group in terms of outpatient costs per patient. However, it may also imply that the hospital is not devoting enough resources to outpatient care and that service may be correspondingly low. This aspect will be addressed in the overall analysis of the data.

Table 8 and Table 9 are essentially based on overall measures of performance using an overall index (inpatient and outpatient days). Performance may also be classified in terms of units of production for specific departments within each hospital. The unit of production may be the number of x-ray films processed, prescriptions filled, or laboratory procedures completed. This analysis reveals the components of costs and identifies inefficient departments and causes of low performance throughout the hospital. The data presented in Table 10 are of this nature. Costs are shown for each

TABLE 9

COMPARATIVE OUTPATIENT PERFORMANCE DATA  
 HOSPITALS ARRAYED IN DESCENDING ORDER  
 OF COMPOSITE AVERAGE RANK  
 (High Cost Hospital Ranked First)

Composite Rank (High Cost =1)	Hospital	Avg. Daily Outpnt. Visit	Total Outpatient Visits	Cost Per Outpatient Visit			Ancillary Services Per OP Visit		
				Total	Med. Supply	Other	Lab	X-Ray	Phar
1	A	516	188,959	\$12.56(2)	\$3.41	\$ 9.15	\$1.25(2)	\$.50(1)	\$1.56(1)
2	B	570	208,647	13.00(1)	1.87	11.13	1.12(4)	.41(8)	1.18(5)
3	C	511	186,919	8.95(8)	2.12	6.83	1.57(1)	.48(4)	1.01(10)
4	D	558	204,369	9.40(6)	1.87	7.73	1.03(6)	.48(3)	1.06(8)
5	E	517	189,326	9.01(7)	2.41	6.60	.79(11)	.49(2)	1.34(4)
6	F	533	195,163	8.94(9)	2.29	6.65	1.24(3)	.30(10)	1.38(3)
7	G	580	212,227	12.42(3)	1.75	10.67	1.10(5)	.41(7)	.90(11)
8	H	594	217,467	12.05(4)	2.41	9.64	.92(8)	.47(5)	1.04(9)
<u>9</u>	<u>X</u>	<u>556</u>	<u>203,470</u>	<u>10.55(5)</u>	<u>1.60</u>	<u>8.75</u>	<u>.86(9)</u>	<u>.34(9)</u>	<u>1.16(6)</u>
10	I	590	215,958	8.72(11)	2.01	6.71	.84(10)	.41(6)	1.46(2)
11	J	528	193,202	8.77(10)	1.59	7.18	.95(7)	.29(11)	1.07(7)

major cost center in the hospital based on some unit of production applicable to a particular cost center. Comparing performance data to other hospitals provides a means of identifying deviations. Analysis of departmental deviations provides the Director with a method of identifying cost centers where resource consumption is significantly high or low.

To array the various hospitals in some logical order in terms of workload, the Composite Work Unit (CWU) was used. The Composite Work Unit is a weighted workload factor based on representative elements of hospital activity. Composite Work Units also provide a measure of performance useful to management. The specific formula for determining the CWU for each hospital is:

$$\begin{aligned} &(\text{Average daily patient load}) + (\text{Average daily Admission} \\ &\times 20) + (\text{Average daily births} \times 10) + (\text{Average out-} \\ &\text{patient work units} \times .30) = \text{Total Composite Work Units} \\ &(\text{CWU's}) \end{aligned}$$

The CWU is simply an index which allows us to rank the various hospitals in terms of an overall workload factor. It has little meaning in itself beyond serving as an index of work accomplished. In addition to ranking each hospital according to CWU's, certain cost centers also use the CWU as the unit of production (for example, see Medical Staff Physicians). Other cost centers such as Pharmacy use prescriptions filled as the basis for measure. The specific unit of production is shown under each center heading.

TABLE 10

COMPARATIVE COST CENTER PERFORMANCE DATA  
HOSPITALS ARRAYED IN DECENDING ORDER  
OF COMPOSITE AVERAGE RANK  
(High Cost Hospital Ranked First)

Comp Rank	Hosp	Total CWU	Cost Centers											
			Med Staff (CWU)	Med / Surg Svcs (IP DY)	Clin Svcs (OPV)	Cent Svcs (CWU)	Phar Svcs (RX)	X-Ray (Films)	Clin Lab (Procd)	Regs Svcs (CWU)	Food Svcs (Ratn)	Linen Svcs (CWU)	Hskpg Svcs (Sq Ft)	Com Sup Svcs (CWU)
1	A	90496	4.08(3)	40.90(11)	4.74(1)	.75(2)	1.65(2)	2.40(1)	.70(6)	1.90(4)	6.68(3)	.85(2)	.49(11)	5.60(1)
2	X	93995	3.53(5)	60.10(2)	4.08(2)	.50(6)	1.30(8)	2.29(2)	.72(4)	2.23(1)	7.13(2)	.47(11)	1.50(4)	5.15(2)
3	B	100103	4.49(2)	48.26(8)	3.26(4)	.67(3)	1.35(5)	2.06(4)	.92(1)	1.92(3)	6.38(4)	.58(8)	.87(6)	4.00(10)
4	C	106224	4.64(1)	41.06(10)	3.38(3)	.45(7)	1.47(3)	1.86(5)	.88(2)	1.97(2)	5.11(10)	.63(6)	.83(8)	4.03(9)
5	D	95355	3.12(7)	50.94(6)	2.38(8)	.62(4)	1.32(6)	1.81(7)	.64(7)	1.21(11)	5.32(9)	.93(1)	1.51(3)	5.03(3)
6	E	84940	3.10(9)	69.64(1)	2.05(11)	.20(10)	1.77(1)	1.67(8)	.71(5)	1.26(9)	8.52(1)	.54(10)	.99(5)	5.01(4)
7	F	86738	3.02(10)	57.68(3)	2.30(9)	--	1.38(4)	1.81(6)	.86(3)	1.35(8)	5.88(7)	.68(4)	.81(9)	4.48(7)
8	G	101681	3.06(8)	53.56(4)	2.72(7)	.55(5)	1.23(10)	1.46(9)	.59(9)	1.86(5)	6.36(5)	.67(5)	1.56(2)	3.93(11)
9	H	104594	3.72(4)	41.19(9)	2.83(5)	.89(1)	1.29(9)	1.38(10)	.57(10)	1.79(6)	5.31(11)	.79(3)	.84(7)	4.27(8)
10	I	86997	3.53(6)	48.84(7)	2.76(6)	.28(8)	1.18(11)	2.15(3)	.55(11)	1.48(7)	6.07(6)	.59(7)	.62(10)	4.64(5)
11	J	89256	2.59(11)	51.63(5)	2.28(10)	.25(9)	1.32(7)	1.37(11)	.61(8)	1.24(10)	5.85(8)	.56(9)	2.06(1)	4.53(6)

As shown in Table 10, of the 12 cost centers listed, Hospital X ranks in the upper half in all but three areas. This means that costs are higher than the median hospital in terms of the nine cost centers and lower in only three cases. When the average ranking of all hospitals is computed, Hospital X ranks as the second highest cost facility in terms of total costs for each cost center.

The final cost performance index is based on medical supply costs for selected cost centers. This figure represents the cost of medical supplies at the exclusion of all other expense items such as salaries, equipment costs, and maintenance costs. Medical supply cost is a significant cost component for it represents the second largest expense of the hospital and the largest directly controllable cost in the hospital. Again, the unit of production used to compare hospitals of similar workloads is the CWU.

As shown in Table 11, the supply costs for Hospital X is the third highest for all eleven comparable medical facilities in terms of an average ranking. This implies less control and more waste than in other facilities. It provides another indication that resources are not being adequately controlled throughout the hospital.

The overall summary of the four composite measures of efficiency is shown in Table 12. In three out of the four measures, Hospital X shows up poorly.

TABLE 11

COMPARATIVE MEDICAL SUPPLY COST PERFORMANCE DATA  
HOSPITALS ARRAYED IN DECENDING ORDER  
OF COMPOSITE AVERAGE RANK  
(High Cost Hospital Ranked First)

Composite Rank (High Cost =1)	Hospital	Total CWU	Med-Srg Svcs (IP Day)	Gen Clin Svcs (OP Vist)	Cent Ster Svcs (CWU)	Pharm Svcs (RX)	X-Ray Svcs (Films)	Clin Lab (Proc)	Linen Svcs (CWU)
1	A	95355	\$5.39(3)	\$.28(5)	\$.52(3)	\$1.09(4)	\$.61(1)	\$.17(2)	\$.16(2)
2	B	100103	3.01(9)	.31(3)	.52(4)	1.07(6)	.47(10)	.32(1)	.16(3)
<u>3</u>	<u>X</u>	<u>93995</u>	<u>3.21(7)</u>	<u>.32(2)</u>	<u>.40(5)</u>	<u>.95(10)</u>	<u>.55(3)</u>	<u>.15(6)</u>	<u>.09(5)</u>
4	C	90496	1.32(10)	.24(6)	.54(2)	1.08(5)	.53(5)	.17(3)	.06(8)
5	D	89256	5.81(2)	.19(8)	.17(9)	1.07(7)	.51(7)	.17(4)	.08(6)
6	E	86997	4.85(4)	.35(1)	.04(10)	.91(11)	.52(6)	.13(11)	.17(1)
7	F	84940	4.36(5)	.18(9)	.19(8)	1.45(1)	.54(4)	.15(8)	.04(9)
8	G	106224	3.13(8)	.22(7)	.37(6)	1.16(2)	.59(2)	.13(10)	.04(10)
9	H	101681	3.90(6)	.28(4)	.31(7)	1.02(9)	.48(9)	.13(9)	.11(4)
10	I	86738	6.19(1)	.17(10)	--	1.10(3)	.51(8)	.16(5)	.03(11)
11	J	104594	1.06(11)	.12(11)	.70(1)	1.04(8)	.36(11)	.15(7)	.08(7)

TABLE 12

## SUMMARY OF MEASURES OF EFFICIENCY

Measure	Composite Rank (Highest Cost = 1)	No. of Hospitals Considered
Inpatient Costs	2	15
Outpatient Costs	9	11
Cost Centers	2	11
Medical Supplies Costs	3	11

Implicit in these findings, is the conclusion that Hospital X is a high cost hospital relative to similar sized facilities. It is using resources at a higher rate than most other hospitals. The reason outpatient costs are not higher may be explained by the large number of outpatient visits relative to the resources available. This hospital is noted for operating its outpatient clinic at, or over, existing capacity in terms of outpatients treated. This indicates that fixed costs are spread over a large number of units which, in turn, accounts for a relatively low outpatient cost per patient. In terms of service and facilities, it is difficult to categorize the outpatient operation as either efficient or effective.

At the time of this study, Hospital X was definitely a high-cost hospital. This provides another indication that the hospital was a relatively low performance organization.

As with many other forms of organizations, the reasons for poor performance may be many and complex. Regardless of the reasons, responsibility for organizational effectiveness lies, in the first instance, at the top. In this regard, top management has freely admitted that at the time of this study, the operation of the hospital could properly be placed in the category of "low performance." As with most top managements, the immediate problem facing them is to solve the short-run problems of the organization. This study implies, however, that the real issue lies not in the short-run, day-to-day operational problems but, perhaps, lies in the broader, long-run considerations of the management system, organizational climate, and individual motivation.

#### Summary and Conclusions

The final phase of the management model was evaluated in this chapter. Using accreditation standards, the medical audit, and cost data, the hospital was characterized as a low-performance organization. This does not imply that it provides inadequate patient care. A low level of performance, however, does have some important implications concerning the management system, organizational climate, and individual motivation. These implications will be discussed in the final chapter in terms of the management model presented earlier. The model will also assist in integrating these findings so that conclusions may be made concerning management systems and their impact on the organization.



## CHAPTER VII

### INTEGRATING THE MANAGEMENT MODEL

#### Introduction

Argyris notes there are at least two ways to contribute toward a theory of organization. One is to try to integrate the existing research work into some systematic framework. Another approach is to create a systematic framework which, although influenced by the work of others, attempts to take a somewhat different theoretical direction.<sup>1</sup> This is a useful approach and the one used here. The management model developed in Chapter II is based on the integrated works of others. It has provided the framework for the development of ideas and research concerning the impact of top management style, the management system, and organizational climate on organizational performance. A somewhat new direction has been taken in applying this integrated management model to a complex and intricate organization--the hospital.

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<sup>1</sup>Chris Argyris, Diagnosing Human Relations in Organizations: A Case Study of a Hospital, Studies in Organizational Behavior, No. 2 (New Haven, Conn: Labor and Management Center, Yale University, 1956), p. iii.

Up to this point, the results of the study have been presented for each isolated portion of the model. The purpose of this chapter is threefold: (1) to combine each phase of the model into a totally integrated system, (2) to relate the findings of the study to the hypotheses originally presented in Chapter I, and (3) to make suggestions for further research. The chapter closes with a few summarizing and concluding remarks. In sum, this concluding chapter serves as something more than a basic summary of previous material--the study is both integrated and summarized in these final pages.

#### Top Management and the Management System

The model initially focused on the style of top management. Two aspects of top management style were of prime concern: the relationship between the styles of the Director and other top level managers and the relationship between top management's style and the management system.

#### Top Management's Style

Studies by Likert, Bowers and Seashore, Sykes, and others indicated that managers tend to manage in the style of their superiors. Based on these studies, it was anticipated that there would be a strong relationship between the style of the hospital Director and the perceived management style of the other top managers in the organization. Using Reddin's "Management Style Diagnosis Test," no such strong

or direct relationship was detected. Each manager, including the Director, was found to perceive his own style differently than his colleagues.

Several explanations were offered as possible reasons for this result. Each top manager in this hospital represents a particular power center in the organization and, as such, exerts considerable leverage both upward and downward in the organization. Hence, each manager has considerable freedom to adopt a style which he believes is appropriate to his situation. Since only a small number of managers were sampled, it is possible that an overall influence would be observable if the organization was viewed in total (by sampling all managers). The failure to detect a relationship between styles may, also, stem from the use of the instrument itself; that is, the relationship may be too subtle to detect using this instrument. In any event, the individual manager's self-perceptions were not similar to each other or to the Director. The unique power structure found in most hospitals would suggest that the first explanation is the most feasible.

#### Top Management Style and the Management System

The second aspect concerns top management's style and its relationship to the management system. The aggregate scores for top management (see Chapter IV) lead to a team Style Synthesis of Executive characterized by a participative

or team approach to management. This is comparable to Likert's System 4 (Participative Group) type of management. But when members of the organization were asked to characterize the management of the hospital, they perceived the organization as using a System 2 (Benevolent-Authoritative) type of management. Likert's System 2 is characterized by lack of interaction, emphasis on downward communication, and an overall approach which discourages teamwork or participation. There is a variance between the way top management perceives it is managing and the way members perceive they are being managed. This finding was anticipated, and there are several explanations as to why this situation may exist.

As suggested in previous paragraphs, top management in a hospital does not have the same degree of power and influence as might exist in industrial organizations. The variation in the way top management describes its actions and the way members describe the total management system implies that top management does not have a direct impact on the management system. Other variables such as technology, political considerations, or the external environment may have a greater influence in determining the make-up of the management system.

An alternate explanation lies in the perceptual position of the two groups. Many studies provide convincing evidence that observers differ in what they see in a job

setting.<sup>2</sup> Campbell, et al., note that a substantial portion of observational variance is apparently due to the differing expectations and perceptions of the observer. Peers, superiors, and subordinates may all differ in their perception of the management system.

McGregor also deals with the problem of perceived versus objective reality. He notes that it is not easy to accept the fact that our perceptions of relatively simple aspects of physical reality are mediated by the selectivity of our perception, by our capacity to see what we expect to see, by the theory we have developed about the nature of the world, and by our needs and wishes or our fears and anxieties.<sup>3</sup> We tend to view things in light of our own needs and experiences. Some variance was expected between the way top management views its role in the organization and the way people at lower levels interpret the results of management's actions. Much of the variation occurs in the way the manager views his behavior and the way operating personnel view the total organization.

Likert maintains that differing perceptions are due to a lack of adequate communication between supervisors and subordinates. He believes that the differing perceptions of management and operating personnel as to the management system being used are attributable to a lack of understanding

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<sup>2</sup>Campbell, et al., Managerial Effectiveness, p. 114.

<sup>3</sup>McGregor, The Professional Manager, p. 17.

between the two groups. According to Likert, these perceptual difficulties can be overcome by building greater peer group loyalty, opening communication channels, and permitting members to influence the management system through participative techniques.

In most organizations, lower levels of managerial and operational personnel can be anticipated as having a different perspective concerning the makeup of the management system. Actions of top management are subject to interpretation. Employees do not respond on the basis of what management thinks or what management thinks they think; they act on the basis of their own opinions, needs, and experiences. From management's viewpoint, the crucial point is that the way an employee perceives and understands his total climate is an important determinant of his response to that climate. Whether or not his perception and understanding are reasonable is a separate issue.<sup>4</sup> The differing perceptions of reality should be given ample opportunity to be heard and should not be buried under overlapping levels of management. Top management must be sensitive to these feelings and, where necessary, either change its style or through communication create a better understanding as to why a particular approach is necessary.

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<sup>4</sup>Scanlan, Management and Organizational Behavior, p. 370.

## The Management System--Now vs. Desired

The next phase of the model focused on the management system which organizational members said they would prefer in the hospital. They expressed a consistent and definite desire (L score) to have the organization adopt operating procedures characterized by a participative (System 4) management system. The specific mean system score was 4.33.

Two possible reasons were advanced for why members indicated a desire for a System 4 organization. First, members may be expressing a desire for self-actualization, for more responsibility, and for more opportunities to participate in the decision making functions of the organization. Secondly, Reddin has made the observation that everyone would prefer a System 4 organization based on the wording of the questionnaire and that the replies may not at all be related to self-actualization as Likert has implied.

Assuming, however, that members were earnestly expressing a need for more participation, we cannot automatically expect management to adopt a totally participative management system. McGregor notes, if the layman undertakes to treat himself, his perception of the reality of his own disease will, in many instances, lead him to adopt a method of treatment quite different from what the doctor would prescribe on the basis of his more professional perception.<sup>5</sup>

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<sup>5</sup>McGregor, The Professional Manager, p. 17.

The total organizational setting and environment must be considered before a totally participative management system is prescribed.

At least part of the authoritarian and bureaucratic tendencies of many hospitals stems from the need for predictability in emergency situations. As in many organizations designed to mobilize resources quickly in order to meet crisis and emergencies successfully, a good deal of regimented behavior is required.<sup>6</sup> Additionally, the recent emphasis on efficiency and economy in hospitals has led to more bureaucratic systems of control in the form of more rules and regulations and more formal prescriptions for behavior. The advantages to be gained from this more formal structure are stability, order, efficiency, uniformity, and symmetry.<sup>7</sup> The price of these advantages has been found to be alienation and sometimes boredom. Such bureaucratic systems run counter to the participative ideal.

Since the study hospital is a government institution and as such must function within the prescribed limits of government control and regulation, it is, at conception, a structured and bureaucratic organization. The hospital not only must attempt to fulfill the predetermined expectations of its members, but it must conform to the expectations of higher levels of government. The hospital is also a highly

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<sup>6</sup>Georgopoulos and Mann, Community Hospital, p. 8.

<sup>7</sup>Scanlan, Management and Organizational Behavior, p. 253.



technically oriented form of organization in which fine divisions of labor have added to the already structured environment.

All these factors emphasize the influence external environment has on the type management system feasible in most hospitals. Realistically, a total shift to a participative management system would not only be extremely difficult, but it could spell disaster for the organization. The amount and kind of participation possible or desirable is limited by a number of organizational realities.

This is not to say there is no place for participative management in this hospital nor that members' desires for participation in the organizational functions should be ignored. Many situations in the hospital environment are very conducive to participation.

A hospital is highly differentiated in terms of organizational structure. At one extreme, are the physicians typified by a loose, organic structure and, at the other extreme, are the relatively unskilled workers (such as house-keeping, dietary, nurses aides, and laundry personnel) with more hierarchical forms of control. Nurses, skilled technicians, and some administrative personnel fall in between these two extremes.<sup>8</sup> Neuhauser states, "theory would

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<sup>8</sup>Bell developed an index of discretion for various types of hospital workers in one hospital he studied. His discretion score was based on whether these workers decided to perform tasks, and how and in what order to perform them. He found a significant relationship between the complexity of

suggest, and the empirical evidence supports the idea, that this is fundamentally a rational way to organize a hospital given the current technology and tasks involved."<sup>9</sup>

This mixed structure suggests the requirement for clearly differentiated management styles in conjunction with different levels of task complexity. In industry studies, Lawrence and Lorsch found that efficient organizations are those who clearly differentiate management styles in conjunction with different levels of task complexity. Baldwin repeated the Lawrence and Lorsch studies in 14 hospitals and also found that a differentiated structure is significantly related to high performance.<sup>10</sup> These findings serve to point out that complex activities involving highly skilled professionals call for a more participative decision-making structure while the recurrent tasks performed by relatively unskilled workers call for a more hierarchical formalized structure.<sup>11</sup>

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tasks these workers performed, the amount of education or experience required, and the amount of discretion they had. Gerald D. Bell, "Formalism Versus Flexibility in Complex Organizations, A Comparative Investigation within a Hospital" (unpublished Ph.D. dissertation, Yale University, 1965), p. 51, cited by Duncan Neuhauser, "The Hospital as a Matrix Organization," Hospital Administration, XVII (Fall, 1972), 11.

<sup>9</sup>Duncan Neuhauser, "The Hospital as a Matrix Organization," Hospital Administration, XVII (Fall, 1972), 15.

<sup>10</sup>L. Eugene Baldwin, "Differentiation and Integration in Hospital Organization" (unpublished Ph.D. dissertation, University of West Florida, Pensacola, 1970), cited by Neuhauser, "Matrix Organization," p. 12.

<sup>11</sup>In Neuhauser's study of 30 Chicago hospitals, the

This approach resolves some of the "either/or" dilemmas of participation. There is no implication that more participation is better than less. The degree of participation which will be suitable depends not only upon the needs of the people, but upon their capacity to contribute, the environment, and the nature of the task.

#### The Management System and Organizational Climate

The next sequential step in interrelating the components of the model focused on the relationship between the management system and organizational climate. The degree to which the management system in the hospital was related to the organizational climate that prevailed throughout the organization was measured.

To determine the degree of relationship, the data pertaining to the management system (from Likert's questionnaire) was correlated with the data pertaining to organizational climate (from Litwin and Stringer's questionnaire). The Pearson product-moment correlation coefficient was calculated for each corresponding variable derived from the management system and organizational climate scale factors.

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relatively high complexity (physician) component had higher quality care if there was a higher level of participation by physicians. On the other hand, the relatively low complexity (non-physician) component (dietary, housekeeping, laundry, lab and x-ray workers) was more efficient if it was more hierarchically organized. Duncan Neuhauser, "Administrative Activities and Hospital Performance" (Research No. 28, Center for Health Administration Studies, University of Chicago, 1971), cited in Neuhauser, "Matrix Organization," p. 12.

The correlation coefficients represent the degree of consistency with which organizational members tended to view one management system variable compared to another organizational climate variable. Using the highest correlation coefficient as an example (see circled item in Table 13),  $r = .68$  implies that individuals who felt there was a high degree of interaction in the hospital tended also to identify more closely with the organization. Conversely, low interaction was associated with low organizational identity. Table 13 provides measures of the degree to which members tended to pair high management system scores (for example, System 4) with high climate scores or, conversely, low system scores (System 1) with low climate scores.<sup>12</sup>

The most significant aspect about Table 13 is the large number of positive correlations. Out of the 64 pairs, only four were negative and these were not significant at the 95 percent confidence level. Forty-nine of the pairs (77 percent) were significantly and positively correlated at the 1 percent significance level; fifty-four pairs (84 percent) were significantly and positively correlated at the 5 percent level of significance. The climate factors, support and identity, correlate most highly with all aspects of the

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<sup>12</sup>An exception is with the climate variable, structure. Here the coefficient refers to the degree to which a high management system score (System 4) is coupled with low structure; or conversely, high structure is coupled with a low management system score (System 1). The logic is that high structure is associated with System 1 while low structure is more closely associated with System 4.

management system; structure, reward, risk, warmth, and standards show moderate correlation; responsibility shows no significant correlation. This does not necessarily mean that no relationship between the management system variables and responsibility exists. It means only that the relationship is not linear; it may be curvilinear.

TABLE 13

INTERCORRELATION BETWEEN MANAGEMENT SYSTEM  
AND ORGANIZATIONAL CLIMATE VARIABLES

Management System Variables	Organizational Climate Variables							
	Structure	Responsibility	Reward	Risk	Warmth	Support	Standards	Identity
1. Leadership	.31	.00	.34	.30	.44	.60	.34	.46
2. Motivation	.35	.00	.46	.27	.44	.48	.38	.54
3. Communication	.30	.03	.42	.39	.55	.62	.37	.62
4. Interaction	.23	-.03	.47	.34	.58	.63	.37	.68
5. Decision-Making	.23	.11	.39	.38	.47	.61	.31	.54
6. Goal Setting	.22	-.07	.33	.22	.44	.56	.29	.54
7. Control	.28	-.12	.38	.26	.42	.61	.32	.59
8. Performance	.29	-.17	.15	.23	.10	.27	.39	.29

Significant at the 1 percent level,  $r = .254$  with 100 degrees of freedom  
Significant at the 5 percent level,  $r = .195$  with 100 degrees of freedom

These results, generally, show a positive relationship between the management system and the organizational climate prevailing in this hospital. The relatively low system scores found using Likert's questionnaire logically match the high structured climate scores indicated by the Litwin

and Stringer questionnaire.

Based on these data, there is some connection between the two factors. Because of the large number of pairings, however, it is somewhat difficult to relate the management system to organizational climate in total. What is required is a technique whereby the two sets of data can be combined into a single, meaningful correlation. Canonical correlation can be used to accomplish this objective.

Canonical correlation analysis is a technique for dealing meaningfully with the composite association between sets of criterion and predictor variables (the management system and organizational climate, respectively). The objective is to arrive at one correlation coefficient (canonical correlation index) which permits the description of the overall relationship between the two sets of variables--the management system and organizational climate. Like regression analysis, a set of weights (canonical coefficients) are found for the independent variable--the management system. Unlike regression analysis, a set of weights is also determined for the dependent variable--organizational climate. The weights are derived for each set of variables so the weighted sums are maximally correlated. In other words, two sets of weighting coefficients (one for each of the eight management system and organizational climate variables) are derived such that a composite variable for each set is maximally correlated in a two variable linear correlation. The

index is interpreted as a measure of the overall correlation between the two sets of criterion and predictor variables.

A positive canonical correlation index of .81 was derived, implying a strong relationship between the linear compounds of the management system and the organizational climate. Using standardized data, the slope coefficient for the regression line is:

$$Y = .81(X)$$

where Y is the linear compound of organizational climate and X is the linear compound of the management system. As in regression analysis, the canonical correlation index also serves a predictive purpose; that is, knowing the value for (X), the management system, the linear compound for (Y), organizational climate, can be estimated.

As a measure of the overall correlation between the management system and organizational climate, a .81 correlation may imply a strong positive relationship between the two factors. It does not imply, however, that the management system is necessarily the determining factor of climate.

The implication throughout this discussion has been that the managers, and the way they manage, determine the organizational climate that exists in the organization. McGregor notes that it is reasonable to ask whether subordinate's attitudes do not have a great deal to do with the results? He answers this question with, "Of course they do."<sup>13</sup>

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<sup>13</sup>McGregor, The Human Side of Enterprise, p. 141.

In fact, an important implication of this study is that there are many factors besides the management system which determine organizational climate. The focus here has been specifically directed toward the management system; however, one might well argue that organizational climate is a determinant of the management system. It is very likely, in fact, that the two are very interdependent. The environment determines a manager's style just as his style, in part, accounts for the environment of the organization.

In terms of management, however, Litwin and Stringer have shown in laboratory studies that the style of management is a direct determinant of organizational climate. The effect that climate has on a manager's style has not been so clearly documented. Using Litwin and Stringer's findings in support of these results, it seems likely that organizational climate is logically more of the dependent variable--that the high positive correlation found in the study is in part dependent on the management system. By varying its style of management, top management can create different organizational climates. The degree to which management can or should change the organizational climate can only be discussed in terms of overall organizational performance.

#### The Management System, Organizational Climate and Performance

Performance is the final element in the model. By linking the management system, organizational climate, and



organizational performance into one discussion, the most significant aspects of the study can be examined. The ultimate question concerns the management system that will lead to a high level of organizational performance.

In terms of current performance, this hospital was characterized by its members as a System 2 organization. Likert contends that high-performance organizations are more like System 4. In that Likert feels there is a cause and effect relationship between the management system and performance, it was postulated that the hospital would be experiencing some difficulty in terms of organizational performance. To determine if this was true, the accreditation standards, medical audits, and efficiency indexes were presented as acceptable indicators of performance. It was determined that, although the hospital was rendering adequate medical care, it could, indeed, be categorized as a low-performance organization at the time of the study.

There are two fundamental explanations for a low level of organizational performance in the hospital. One pertains to Likert's theory of the management system, and the second pertains to Litwin and Stringer's theory of motivation and organizational climate.

#### Likert's Theory

Likert postulates that performance is low because management is not using more participative techniques to allow organizational members to be self-actualizing. Likert

would contend that there is a mismatch between the management system and the self-actualizing needs of the individual members of the organization. If the organization expects to make long-term improvements in performance, then a shift toward a more participative (System 4) management system would be appropriate. It is important to note that using Likert's theoretical structure, the only option open to management would be a shift toward System 4 type management--that is, more participation.

#### Litwin and Stringer's Theory

In the Litwin and Stringer theory of motivation and organizational climate, the cause of and solution to poor performance is somewhat different. High performance results from a correct match between the organizational climate and the individual's motives. Numerous factors, of which the management system is of prime importance, have combined in this hospital to create an organizational climate characterized by a high structure. According to Litwin and Stringer, this high structure would appeal to those who have a high need for power. Since the hospital was characterized as being a low-performance organization, the implication is that the climate of high structure is not tapping the dominant motives of individuals working in the organization. Following this logic, if management wants to make long-term improvements in performance, two options are available--change the management system to meet the needs of the people or

change the people to meet the needs of the organization.

### An Effective Management System

Management is a synthesis of many elements and it can be analyzed realistically only in terms of blends, not discrete categories. The central issue here focuses on the management system that will lead to a high level of performance. As noted earlier, there are some important environmental constraints which limit the degree to which a totally participative management system can be employed in the hospital. It is also true that management will continue to selectively rely on a management system which, in part, contributes to a climate characterized by a relatively high degree of structure. As one author notes, hospitals are still characterized by their traditional, authoritarian characteristics along with their emphasis on rational organization. It is likely that these characteristics will continue to exist for they would not persist unless it was believed that they were more functional than not.<sup>14</sup> Paradoxically, it was also noted that there is an important place for participative management in the hospital depending on the nature of the task, the people involved, and the environment.

One important implication then, is that the kind of management system which has been found to be effective in other organizational settings might not be the most

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<sup>14</sup>Georgopoulos and Mann, Community Hospital, p. 9.

appropriate or effective in the hospital.<sup>15</sup>

As observed in an earlier chapter, the functions of the management system in a hospital are invariably related to coordination. Adequate coordination, in turn, is a key to effective performance. The dual nature of the hospital's authority structure suggests there must be two basic forms of organizational coordination. The first stems from the programmed, formal, and structured requirements of the formal system. The second form of coordination is derived from the non-programmed, informal, and ad hoc requirements of the informal communications network. Programmed coordination facilitates the functioning of the hospital as a well-run machine. Non-programmed coordination, on the other hand, facilitates the interrelating of the diversified, interacting, and interdependent parts of the organizational system. The degree to which either programmed or non-programmed coordination is employed depends on the time, place, and circumstances.

When viewed in this context, the question of what kind of management system is most desirable or most appropriate for the hospital is highly relative. Managerial practices and superior-subordinate relationships that may be effective at one organizational level, for example, are not necessarily effective at other levels.

In composite, the implication of this study is that

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<sup>15</sup>Ibid., p. 620.

neither the traditional, directive-autocratic management system nor the more recent, participative management system is most appropriate for this hospital. An alternate approach, incorporating elements of both, would be required, depending on the situation in which they are used. This approach would be such that the formal and informal organizational channels of communication would be open and in use. It is important that members develop an awareness of each other's role and mutually understand the needs of the organization. It is not only important that people agree enough about what they "see" to be able to coordinate their efforts; it is also important that people see the "real world" accurately enough to be able to deal with it in a functional manner. Opening the communication network is the best guarantee that adequate coordination can be achieved to help insure a high level of organizational effectiveness. It is not the fundamental task of top management in the hospital to provide strict top-down control, power, or influence over the management system. Rather, its fundamental task is to insure that the lines of communication are kept open so that the interdependent parts and activities in the system are interrelated and articulated with one another insuring that the system as a whole will move in a desired direction.

The issues of the perceptual differences between top management and organization members in the study hospital have been noted. When the mutual expectations of different

members show a poor fit, as they do in this organization, organizational coordination becomes difficult to attain and maintain. In the presence of poorly fitting expectations, the organization tends to become granulated, segmented, and compartmentalized rather than integrated. Segmentation, among other things, means that the organization is likely to respond and function by parts rather than as a unified structure.<sup>16</sup> It is sufficient to note here that coordination in this organization can only be effective if top management and members develop and maintain shared expectations and frames of reference concerning the needs of the organization and the needs of the individuals. The mediating role of the management system is, therefore, a crucial one in reconciling the imposed demands of the situation with the personal needs of the members. Assuming members accept the basic objective of the hospital, to provide high quality patient care, this reconciliation can take place in harmony with a relatively structured organizational climate. Such a climate need not be coercive or punitive. If it makes sense to the individuals involved, given their needs and capacity to contribute, they will find it rewarding and motivating and as a result the organization will be more effective.

The results obtained in the present study clearly suggest that considerable additional research will be necessary before theorists are in a position to unravel the

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<sup>16</sup>Ibid., p. 294.

complexities that seem to surround the question of what type management system would best enable the hospital to reach high levels of performance. Nevertheless, it is highly unlikely that a single particular type of management will be shown to provide an answer that is realistically applicable to all or most hospitals or even to all levels within a hospital without important qualification.

### Hypotheses Testing

The hypotheses pertaining to the study can be examined based on the findings in this and previous chapters. In addition to a statement as to its acceptance or rejection, a brief discussion will follow each hypothesis providing the reasoning for the acceptance or rejection. This discussion will also serve as a brief summary of the major findings of the study.

#### Hypothesis 1

The perceived managerial style of second level managers is consistent with that style perceived by the leader of the organization.

Based on the results of Reddin's "Management Style Diagnosis Test," this hypothesis is rejected. The Director's style was Benevolent-Autocrat although no other top-level manager perceived this to be his Dominant Style. In addition, no observable relationship existed between the individual styles of the five second level managers.

## Hypothesis 2

The management system as perceived by the members of the organization differs from the managerial style which top management perceives it is using.

The aggregate scores for top management lead to a team style synthesis of Executive comparable to Likert's System 4 management. On the other hand, when members of the organization were asked to characterize the management of the hospital, they perceived the organization as using a System 2 type of management. In short, there is a variance between the way top management perceived it was managing and the way members perceived they were being managed. The hypothesis is accepted.

## Hypothesis 3

Government hospital employees prefer participative management systems over authoritative management systems.

Based on responses to Likert's "Organizational Profile Questionnaire," this hypothesis is accepted. Organization members expressed a consistent and definite desire (in terms of L scores) to have the organization adopt operating characteristics which are characterized by participative (System 4) management systems. The specific mean score was 4.33.

## Hypothesis 4

There is a positive correlation between the management system and organizational climate. More specifically,



there is a positive relationship between the management system as perceived by organization members and the climate properties existing in the organization.

Based on correlation data between Likert's eight major organizational characteristics and Litwin and Stringer's eight organizational climate variables, this hypothesis is accepted. Eighty-four percent of the paired correlation coefficients were positively and significantly correlated at the 5 percent level of significance. When the two sets of data were analyzed on the basis of canonical analysis, a .81 canonical correlation index was found. This is considered to be adequate justification for accepting the hypothesis.

#### Hypothesis 5

The management system being used in an organization is a determinant of the organization's performance. This hypothesis stems from Likert's contention that high-performance organizations employ more participative management systems while low-performance organizations are characterized as using more traditional, autocratic management systems.

Based on Likert's Profile of Organizational Characteristics and organizational performance data, this hypothesis is accepted. It was determined that the organization was using a System 2 type of management. Based on this finding, it was anticipated the organization would be a low-performance hospital. When judged against accreditation standards, medical audit reports, and efficiency indexes, the hospital was

in fact a low performing organization.

The remaining two hypotheses are minor ones pertaining to the mechanics of the questionnaires. The procedure for examining each hypothesis, however, remains the same as for those above.

#### Hypothesis 6

There is a positive intercorrelation between organizational profile variables, indicating internal consistency of the management system.

Based on the high correlation coefficients found for each pair of organizational variables, this hypothesis is accepted. Data supporting this hypothesis were presented in Table 2 of Chapter IV. To review briefly, Likert postulated that regardless of the specific management system being used in an organization, every component part of that system would fit well with each of the other parts. To evaluate this proposition, the eight major variables from Likert's questionnaire were correlated using the Pearson product-moment correlation coefficient. All coefficients were significant and positive. Approximately two-thirds were above .70 with the lowest being .56. Hence, this hypothesis was accepted as the component parts of the hospital's management system were indeed consistent.

## Hypothesis 7

There is a positive intercorrelation between organizational climate scale factors which indicate scale consistency (referring to the extent that items in a scale are positively related and are measuring the same thing).

Based on mean correlation coefficients for each climate scale factor, this hypothesis is accepted with qualification. The data supporting this hypothesis were presented in Table 5 of Chapter V. It was found that the mean intercorrelation for the eight climate scale factors was considerably lower for this study than for those found by Litwin and Stringer. Four of the factors showed good scale consistency; however, four others were lower than anticipated. This implies that the questions pertaining to these low factors may require rewording to insure a full understanding of the questions. It was suggested that words common to a business or industrial environment do not have the same connotation to hospital personnel. In that the mean correlations were all positive and generally conformed to the patterns of those found by Litwin and Stringer, this hypothesis is accepted on the basis that, with some rewording, the climate questionnaire would serve as a useful tool in future hospital research.

Suggestions for Additional Research

The organizational problems and related difficulties now encountered by the health care system suggests that many

hospitals are less effectively managed than the public desires.<sup>17</sup> Managerial difficulties, coupled with a relative absence of comprehensive, systematic collection, and reporting of research applications in hospitals, imply a need for more research. This study points to the need for additional research in several specific areas.

First, there are few comparative studies concerning what factors distinguish a more effective hospital from the less effective one. Along these same lines, there is little to indicate the criteria for determining what constitutes an effective hospital either in terms of patient care or efficiency. On a more micro level, little is known about the needs, desires, and aspirations of individuals who work in hospitals. Much remains to be done concerning how the organizational requirements for efficiency and predictability can be integrated with the needs of the doctors, technicians, administrators, and other specialized persons associated with the hospital.

From strictly a management standpoint there are also several unanswered questions. To what extent does current management theory apply to a complex organization such as the hospital? This study implied there may be some important exceptions stemming from the unique organizational structure of the hospital. Perhaps the hospital would be more adequately described as a matrix organization than a hierarchy.

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<sup>17</sup>Georgopoulos, Organizational Research, p. 1.

The implication is that the hospital should be considered as a more flexible system whereby temporary patient-care teams led by a physician are formed across the hierarchical organization. This topic would merit further research, especially in light of the current emphasis on temporary systems within organizations. Paralleling this aspect, it would be interesting to determine to what degree top management in a hospital actually influences the total organization. There is some indication arising from this study that top management may be influenced as much as it influences and that the true power centers are internal and reside within the organization itself--not at the top. Such an internal influence approach would seem to challenge the current top-down approach to management theory.

#### Concluding and Summarizing Remarks

The present study represents an effort toward understanding behavior through the development and application of a management model to a specific organization. This research began in a general, descriptive way and then developed into a rigorous and quantitative investigation into certain aspects of the management system and organizational climate. An attempt was made to specify and evaluate some of the factors relating to overall organizational effectiveness. The study was particularly concerned with these aspects as they applied to a government hospital.

The methodology was based essentially on a case study

using data from one hospital for analysis. A systems approach was taken which attempted a synoptic view of the hospital--that is, viewing the hospital as a total organization and investigating variables, problems, and phenomena of organization-wide significance. The theoretical emphasis, for the most part, was on the behavioral aspects of hospital management. The aims were partially exploratory and partially analytical and explanatory. The study sought to provide descriptive information about the hospital as well as to apply the findings in a management model framework.

Among complex organizations, the hospital with its intricate structure and delicate division of labor is unexcelled in offering a challenging environment in which to test a management model. As Georgopoulos and Mann note, a serious study of as complicated an organization as the hospital cannot but raise many questions and issues, perhaps more than it may help resolve.<sup>18</sup>

However systematic this research might be, it cannot in its limited scope supply answers to more than a relatively few questions regarding the phenomena with which it is concerned. By developing a management model of the type presented here and by applying it to a specific organization, a few fundamental questions have been examined. The strength of this approach is that it provides a systematic way of dealing with complexity rather than ignoring it. The

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<sup>18</sup>Georgopoulos and Mann, Community Hospital, p. 635.

management model used here has served a useful purpose because it has provided a comprehensive picture of the organization to which it was applied. Because it has proved useful in such a complex form of organization, the hospital, it seems to have sufficient generality to also be applied to other forms of organizations. In sum, this approach can contribute not only to knowledge of problems and characteristics of hospitals, but toward the general knowledge of human organizations.

## APPENDIX I

### SAMPLE SURVEY

#### Management Style Diagnosis Test<sup>1</sup>

This appendix provides the list of questions from W. J. Reddin's Management Style Diagnosis Test. Full scoring details are not included here, but the complete test can be obtained from Organizational Tests, Ltd., Box 342, Fredericton, N. B., Canada.

The six managers participating in this study were asked to select one statement from each of the sixty-four pairs of statements listed in this appendix. Based on their responses, a Dominant Style, a Supporting Style, and a Style Synthesis was determined for each manager. A detailed description, definition of terms, and analysis of the results are provided in Chapter III of this study.

The specific instructions given to the managers were as follows:

"To decide which statement best applies, ask yourself: Of the two statements given, which best describes what I actually do on the job I now have? It may be helpful, in difficult cases, to answer as someone would who really knew and understood your present approach to your job. Some statements you may find a little ambiguous, sometimes both will apply, often, neither will seem to apply. However, in every case pick the one statement that best describes you at present if you were faced with the circumstances described."

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<sup>1</sup>Used by permission of W. J. Reddin and Organizational Tests, Ltd. This test is based on the theory as outlined in Managerial Effectiveness by W. J. Reddin, McGraw-Hill Book Company, 1970.



## QUESTIONNAIRE

1. A He overlooks violations of rules if he is sure that no one else knows of the violations.  
B When he announces an unpopular decision, he may explain to his subordinates that his own boss has made the decision.
2. A If an employee's work is continually unsatisfactory, he would wait for an opportunity to have him transferred rather than dismiss him.  
B If one of his subordinates is not a part of the group, he will go out of his way to have the others befriend him.
3. A When the boss gives an unpopular order, he thinks it is fair that it should carry the boss's name, and not his own.  
B He usually reaches his decisions independently, and then informs his subordinates of them.
4. A If he is reprimanded by his superiors, he calls his subordinates together and passes it on to them.  
B He always gives the most difficult jobs to his most experienced workers.
5. A He allows discussions to get off the point quite frequently.  
B He encourages subordinates to make suggestions, but does not often initiate action from them.
6. A He sometimes thinks that his own feelings and attitudes are as important as the job.  
B He allows his subordinates to participate in decision making, and always abides by the decision of the majority.
7. A When the quality or quantity of departmental work is not satisfactory, he explains to his subordinates that his own boss is not satisfied, and that they must improve their work.  
B He reaches his decisions independently, and then tries to "sell" them to his subordinates.
8. A When he announces an unpopular decision, he may explain to his subordinates that his own boss has made the decision.  
B He may allow his subordinates to participate in decision making, but he reserves the right to make the final decision.

9. A He may give difficult jobs to inexperienced subordinates, but if they get into trouble he will relieve them of the responsibility.  
B When the quality or quantity of departmental work is not satisfactory, he explains to his subordinates that his own boss is not satisfied, and that they must improve their work.
10. A He feels it is as important for his subordinates to like him as it is for them to work hard.  
B He lets other people handle jobs by themselves, even though they may make many mistakes.
11. A He shows an interest in his subordinates' personal lives because he feels they expect it of him.  
B He feels it is not always necessary for subordinates to understand why they do something, as long as they do it.
12. A He believes that disciplining subordinates will not improve the quality or quantity of their work in the long run.  
B When confronted with a difficult problem, he attempts to reach a solution which will be at least partly acceptable to all concerned.
13. A He thinks that some of his subordinates are unhappy, and tries to do something about it.  
B He looks after his own work, and feels it is up to higher management to develop new ideas.
14. A He is in favor of increased fringe benefits for management and labor.  
B He shows concern for increasing his subordinates' knowledge of the job and the company, even though it is not necessary in their present position.
15. A He lets other people handle jobs by themselves, even though they make many mistakes.  
B He makes decisions independently, but may consider reasonable suggestions from his subordinates to improve them if he asks for them.
16. A If one of his subordinates is not a part of the group, he will go out of his way to have the others befriend him.  
B When an employee is unable to complete a task, he helps him to arrive at a solution.

17. A He believes that one of the uses of discipline is to set an example for other workers.  
B He sometimes thinks that his own feelings and attitudes are as important as the job.
18. A He disapproves of unnecessary talking among his subordinates while they are working.  
B He is in favor of increased fringe benefits for management and labor.
19. A He is always aware of lateness and absenteeism.  
B He believes that unions may try to undermine the authority of management.
20. A He sometimes opposes union grievances as a matter of principle.  
B He feels that grievances are inevitable and tries to smooth them over as best he can.
21. A It is important to him to get credit for his own good ideas.  
B He voices his own opinions in public only if he feels that others will agree with him.
22. A He believes that unions may try to undermine the authority of management.  
B He believes that frequent conferences with individuals are helpful in their development.
23. A He feels it is not always necessary for subordinates to understand why they do something, as long as they do it.  
B He feels that time-clocks reduce tardiness.
24. A He usually reaches his decision independently, and then informs his subordinates of them.  
B He feels that unions and management are working towards similar goals.
25. A He favors the use of individual incentive payment schemes.  
B He allows discussions to get off the point quite frequently.
26. A He takes pride in the fact that he would not usually ask someone to do a job he would not do himself.  
B He thinks that some of his subordinates are unhappy, and tries to do something about it.

27. A If a job is urgent, he might go ahead and tell someone to do it, even though additional safety equipment is needed.  
B It is important to him to get credit for his own good ideas.
28. A His goal is to get the work done without antagonizing anyone more than he has to.  
B He may assign jobs without much regard for experience or ability but insists on getting results.
29. A He may assign jobs without much regard for experience or ability but insists on getting results.  
B He listens patiently to complaints and grievances, but often does little to rectify them.
30. A He feels that grievances are inevitable and tries to smooth them over as best he can.  
B He is confident that his subordinates will do satisfactory work without any pressure from him.
31. A When confronted with a difficult problem, he attempts to reach a solution which will be at least partly acceptable to all concerned.  
B He believes that training through on the job experience is more useful than theoretical education.
32. A He always gives the most difficult jobs to his most experienced workers.  
B He believes in promotion only in accordance with ability.
33. A He feels that problems among his workers will usually solve themselves without interference from him.  
B If he is reprimanded by his superiors, he calls his subordinates together and passes it on to them.
34. A He is not concerned with what his employees do outside of working hours.  
B He believes that disciplining subordinates will not improve the quality or quantity of their work in the long run.
35. A He passes no more information to higher management than they ask for.  
B He sometimes opposes union grievances as a matter of principle.
36. A He sometimes hesitates to make decisions which will be unpopular with his subordinates.  
B His goal is to get the work done without antagonizing anyone more than he has to.

37. A He listens patiently to complaints and grievances, but often does little to rectify them.  
B He sometimes hesitates to make a decision which he feels will be unpopular with his subordinates.
38. A He voices his own opinions in public only if he feels that others will agree with him.  
B Most of his subordinates could carry on their jobs without him if necessary.
39. A He looks after his own work, and feels it is up to higher management to develop new ideas.  
B When he gives orders, he sets a time limit for them to be carried out.
40. A He encourages subordinates to make suggestions, but does not often initiate action from them.  
B He tries to put his workers at ease when talking to them.
41. A In discussion he presents the facts as he sees them, and leaves others to draw their own conclusions.  
B When the boss gives an unpopular order, he thinks it is fair that it should carry the boss's name, and not his own.
42. A When unwanted work has to be done, he asks for volunteers before assigning it.  
B He shows an interest in his subordinates' personal lives because he feels they expect it of him.
43. A He is as much interested in keeping his employees happy as in getting them to do their work.  
B He is always aware of lateness and absenteeism.
44. A Most of his subordinates could carry on their jobs without him if necessary.  
B If a job is urgent, he might go ahead and tell someone to do it, even though additional safety equipment is needed.
45. A He is confident that his subordinates will do satisfactory work without any pressure from him.  
B He passes no more information to higher management than they ask for.
46. A He believes that frequent conferences with individuals are helpful in their development.  
B He is as much interested in keeping his employees happy as in getting them to do their work.

47. A He shows concern for increasing his subordinates' knowledge of the job and the company, even though it is not necessary in their present position.  
B He keeps a very close watch on workers who get behind or do unsatisfactory work.
48. A He allows his subordinates to participate in decision making, and always abides by the decision of the majority.  
B He makes his subordinates work hard, but tries to make sure that they usually get a fair deal from higher management.
49. A He feels that all workers on the same job should receive the same pay.  
B If any employee's work is continually unsatisfactory, he would wait for an opportunity to have him transferred rather than dismiss him.
50. A He feels that the goals of union and management are in opposition but tries not to make his view obvious.  
B He feels it is as important for his subordinates to like him as it is for them to work hard.
51. A He keeps a very close watch on workers who get behind or do unsatisfactory work.  
B He disapproves of unnecessary talking among his subordinates while they are working.
52. A When he gives orders, he sets a time limit for them to be carried out.  
B He takes pride in the fact that he would not usually ask someone to do a job he would not do himself.
53. A He believes that training through on the job experience is more useful than theoretical education.  
B He is not concerned with what his employees do outside of working hours.
54. A He feels that time-clocks reduce tardiness.  
B He allows his subordinates to participate in decision making, and always abides by the decision of the majority.
55. A He makes decisions independently, but may consider reasonable suggestions from his subordinates to improve them if he asks for them.  
B He feels that the goals of union and management are in opposition but tries not to make his view obvious.

56. A He reaches his decisions independently, and then tries to "sell" them to his subordinates.  
B When possible he forms work teams out of people who are already good friends.
57. A He would not hesitate to hire a handicapped worker if he felt he could learn the job.  
B He overlooks violations of rules if he is sure that no one else knows of the violations.
58. A When possible he forms work teams out of people who are already good friends.  
B He may give difficult jobs to inexperienced subordinates, but if they get in trouble he will relieve them of the responsibility.
59. A He makes his subordinates work hard, but tries to make sure that they usually get a fair deal from higher management.  
B He believes that one of the uses of discipline is to set an example for other workers.
60. A He tries to put his workers at ease when talking to them.  
B He favors the use of individual incentive payment schemes.
61. A He believes in promotion only in accordance with ability.  
B He feels that problems among his workers will usually solve themselves without interference from him.
62. A He feels that unions and management are working towards similar goals.  
B In discussion he presents the facts as he sees them and leaves others to draw their own conclusions.
63. A When an employee is unable to complete a task, he helps him to arrive at a solution.  
B He feels that all workers on the same job should receive the same pay.
64. A He may allow his subordinates to participate in decision making, but he reserves the right to make the final decision.  
B He would not hesitate to hire a handicapped worker if he felt he could learn the job.

## APPENDIX II

FORM T

### SAMPLE SURVEY

#### PROFILE OF ORGANIZATIONAL CHARACTERISTICS

This questionnaire was developed for describing the management system or style used in an organization or one of its divisions.

In completing the questionnaire, it is important that each individual answer each question as thoughtfully and frankly as possible. This is not a test; there are no right or wrong answers. The important thing is that you answer each question the way you see things or the way you feel about them. Your name or other identifying information is not required and you will not be identified regarding your responses. Your reply is completely voluntary.

#### INSTRUCTIONS

1. On the line below each organizational variable (item) please place an N at the point which, in your experience, describes your organization at the present time (N = Now). Treat each item as a continuous variable from the extreme at one end to that at the other.
2. In addition, please place an L on each line at the point which you would like the organization to be (L = Like it to be).

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## PROFILE OF ORGANIZATIONAL CHARACTERISTICS

Organizational variable					Item no.
<b>1. Leadership processes used</b>					
a. Extent to which superiors have confidence and trust in subordinates	Have very little confidence and trust in subordinates	Have some confidence and trust	Have quite a bit of confidence and trust	Have a great deal of confidence and trust	1
b. Extent to which subordinates, in turn, have confidence and trust in superiors	Have very little confidence and trust in superiors	Have some confidence and trust	Have quite a bit of confidence and trust	Have a great deal of confidence and trust	2
c. Extent to which superiors display supportive behavior toward others	Display virtually no supportive behavior	Display supportive behavior in a few situations	Display supportive behavior in a moderate number of situations	Display supportive behavior quite generally and consistently	3.
d. Extent to which superiors behave so that subordinates feel free to discuss things about their jobs with their immediate superior	Subordinates do not feel free to discuss things about the job with their superior	Subordinates do not feel very free to discuss things about the job with their superior, or discuss things guardedly	Subordinates feel quite free to discuss things about the job with their superior, but with some caution	Subordinates feel free to discuss things about the job with their superior and do so candidly	4.
e. Extent to which immediate superior in solving job problems generally tries to get subordinates' ideas and opinions and make constructive use of them	Rarely gets ideas and opinions of subordinates in solving job problems	Occasionally gets ideas and opinions of subordinates in solving job problems	Usually gets ideas and opinions and usually tries to make constructive use of them	Virtually always gets ideas and opinions and tries to make constructive use of them	5
<b>2. Character of motivational forces</b>					
a. Underlying motives tapped:	Major use of (1) Moderate use of (2) Slight use of (3) in form of desire for status and power	Some use of (1) Extensive use of (2) Some use of (3) in form of desire for status and power and by recognition and by achievement	(1) Fulfilled Extensive use of (2) Moderate use of (3) in form of desire for recognition and achievement and some use of (3) in form of power and status Some use of (4)	(1) Fulfilled. Highly effective use of (2) achieved by involvement in decisions on how best to use economic motivations fully. Extensive use of (3) through group problem solving and resulting desire for achievement and self-actualization. Effective use of (4)	6.
b. Manner in which motives are used	Fear, threats, punishment, and occasional rewards	Rewards and some actual or potential punishment	Rewards, occasional punishment, and some involvement	Economic rewards based on compensation system developed through participation; group participation and involvement in setting goals, improving methods, appraising progress toward goals, etc. Full recognition of achievement	7

## PROFILE OF ORGANIZATIONAL CHARACTERISTICS (Continued)

Organizational Variable					Item no.
c. Kinds of attitudes developed toward organization and its goals	Attitudes usually are hostile and counter to organization's goals	Attitudes sometimes are hostile and counter to organization's goals and sometimes are favorable to the organization's goals and support the behavior necessary to achieve them	Attitudes usually are favorable and support behavior implementing organization's goals	Attitudes are strongly favorable and provide powerful stimulation to behavior implementing organization's goals	
					8.
d. Extent to which motivational forces conflict with or reinforce one another	Marked conflict of forces substantially reducing those motivational forces leading to behavior in support of the organization's goals	Conflict usually exists; occasionally some forces will reinforce each other in support of the organization's goals at least partially	Some conflict, but often motivational forces in support of the organization's goals will reinforce each other	Motivational forces in support of the organization's goals generally reinforce each other in a substantial and cumulative manner	
					9
e. Amount of responsibility felt by each member of organization for achieving organization's goals	High levels of management feel responsibility; lower levels feel less; rank and file feel little and often welcome opportunity to behave in ways to defeat organization's goals	Managerial personnel usually feel responsibility; rank and file usually feel relatively little responsibility for achieving organization's goals	Substantial proportion of personnel, especially at higher levels, feel responsibility and generally behave in ways to achieve the organization's goals	Personnel at all levels feel real responsibility for organization's goals and behave in ways to implement them	
					10.
f. Attitudes toward other members of the organization	Subservient attitudes toward superiors coupled with hostility; hostility toward peers and contempt for subordinates; distrust is widespread	Subservient attitudes toward superiors; competition for status resulting in hostility toward peers; condescension toward subordinates	Cooperative, reasonably favorable attitudes toward others in organization; may be some competition between peers with resulting hostility and some condescension toward subordinates	Favorable, cooperative attitudes throughout the organization with mutual trust and confidence	
					11
g. Satisfaction derived	Usually dissatisfaction with membership in the organization, with supervision, and with one's own achievements	Dissatisfaction to moderate satisfaction with regard to membership in the organization, supervision, and one's own achievements	Some dissatisfaction to moderately high satisfaction with regard to membership in the organization, supervision, and one's own achievements	Relatively high satisfaction throughout the organization with regard to membership in the organization, supervision, and one's own achievements	
					12.
3. Character of communication process					
a. Amount of interaction and communication aimed at achieving organization's objectives	Very little	Little	Quite a bit	Much with both individual and groups	
					13
b. Direction of information flow	Downward	Mostly downward	Down and up	Down, up, and with peers	
					14.

## PROFILE OF ORGANIZATIONAL CHARACTERISTICS (Continued)

Organizational variable					Item no.
c. Downward communication					
(1) Where initiated	At top of organization or to implement top directive	Primarily at top or patterned on communication from top	Patterned on communication from top but with some initiative at lower levels	Initiated at all levels	15
(2) Extent to which superiors willingly share information with subordinates	Provide minimum of information	Gives subordinates only information superior feels they need	Gives information needed and answers most questions	Seeks to give subordinates all relevant information and all information they want	16.
(3) Extent to which downward communications are accepted by subordinates	Viewed with great suspicion	Some accepted and some viewed with suspicion	Often accepted but, if not, may or may not be openly questioned	Generally accepted, but if not, openly and candidly questioned	17
d. Upward communication					
(1) Accuracy of upward communication via line organization	Tends to be inaccurate	Information that boss wants to hear flows; other information is restricted and filtered	Information that boss wants to hear flows; other information limited or cautiously given	Accurate	18.
(2) Subordinates' feeling of responsibility for initiating accurate upward communication	Virtually none	Relatively little, usually communicates "filtered" information and only when requested; may "yes" the boss	Some to moderate degree of responsibility to initiate accurate upward communication	Considerable responsibility felt and much initiative; group communicates all relevant information	19
(3) Forces leading to accurate or distorted upward information	Powerful forces to distort information and deceive superiors	Many forces to distort; also forces for honest communication	Occasional forces to distort along with many forces to communicate accurately	Virtually no forces to distort and powerful forces to communicate accurately	20.
(4) Accuracy of upward communication via line	Tends to be inaccurate	Information that boss wants to hear flows; other information is restricted and filtered	Information that boss wants to hear flows; other information may be limited or cautiously given	Accurate	21
(5) Need for supplementary upward communication system	Great need to supplement upward communication by spy system, suggestion system, and similar devices	Upward communication often supplemented by suggestion system and similar devices	Slight need for supplementary system; suggestion systems may be used	No need for any supplementary system	22.
e. Sideward communication: its adequacy and accuracy	Usually poor because of competition between peers, corresponding hostility	Fairly poor because of competition between peers	Fair to good	Good to excellent	23

## PROFILE OF ORGANIZATIONAL CHARACTERISTICS (Continued)

Organizational variable					Item no.
f. Psychological closeness of superiors to subordinates (i.e., friendly, sincere, frank interaction between superiors and subordinates)	Far apart	Moderately close if proper roles are kept	Fairly close	Usually very close	24.
(1) How well does superior know and understand problems faced by subordinates?	Has no knowledge or understanding of problems of subordinates	Has some knowledge and understanding of problems of subordinates	Knows and understands problems of subordinates quite well	Knows and understands problems of subordinates very well	25
(2) How accurate are the perceptions by superiors and subordinates of each other?	Often in error	Often in error on some points	Moderately accurate	Usually quite accurate	26.
4. Character of Interaction-Influence process					
a. Amount and character of interaction	Little interaction and always with fear and distrust	Little interaction and usually with some condescension by superiors; fear and caution by subordinates	Moderate interaction, often with fair amount of confidence and trust	Extensive, friendly interaction with high degree of confidence and trust	27
b. Amount of cooperative teamwork present to achieve organization's goals	Very little	Relatively little	A moderate amount	Very substantial amount throughout the organization	28.
c. Extent to which subordinates can influence the goals, methods, and activity of their units and depts.					
(1) As seen by superiors	Practically none	A slight amount	Moderate amount	A great deal	29
(2) As seen by subordinates	Practically none except through "informal organization" or via unionization	Little except through "informal organization" or via unionization	Moderate amount both directly and via unionization	Substantial amount both directly and via unionization	30
d. Amount of actual influence which superiors can exercise over the goals, activity, and methods of their units and departments	Believed to be substantial but actually moderate unless capacity to exercise severe punishment is present	Moderate to somewhat more than moderate, especially for higher levels in organization	Moderate to substantial, especially for higher levels in organization	Substantial but often done indirectly, as, for example, by superior building effective interaction-influence system	31.

## PROFILE OF ORGANIZATIONAL CHARACTERISTICS (Continued)

Organizational variable					Item no.
e. Extent to which an effective structure exists enabling one part of organization to exert lateral influence upon other parts	Effective structure virtually absent	Limited capacity exists; influence exerted vertically and primarily downward	Moderately effective structure exists; influence vertically	Highly effective structure exists enabling exercise of influence in all directions	32.
5. Character of decision-making process					
a. To what extent are decisions made by superior or by group participation and consensus	By superiors (or higher levels) with practically no opportunity for consensus	By superiors, but with some opportunity at lower levels	By superiors, but following discussion of problems	By group participation and usually with consensus	33
b. How adequate and accurate is the information available for decision making at the place where decisions are made?	Information is generally inadequate and inaccurate	Information is often somewhat inadequate and inaccurate	Reasonably adequate and accurate information available	Relatively complete and accurate information available based both on measurements and efficient flow of information in organizations	34.
c. To what extent are decision makers aware of problems, particularly those at lower levels in the organization?	Often are unaware or only partially aware	Aware of some, unaware of others	Moderately aware of problems	Generally quite well aware of problems	35.
d. Extent to which technical and professional knowledge is used in decision making	Used only if possessed at higher levels	Much of the knowledge available in higher and middle levels is used	Much of the knowledge available in higher, middle, and lower levels is used	Most of the knowledge available within the organization is used	36
e. Are decisions made at the best level in the organization as far as					
(1) Availability of the most adequate information bearing on the decision	Decisions usually made at levels appreciably higher than levels where most adequate and accurate information exists	Decisions often made at levels appreciably higher than levels where most adequate and accurate information exists	Some tendency for decisions to be made at higher levels than where most adequate and accurate information exists	Overlapping groups and group decision processes tend to push decisions to point where information is most adequate or to pass the relevant information to the decision-making point	37
(2) The motivational consequences (i.e., does the decision-making process help to create the necessary motivations in those persons who have to carry out the decisions)?	Decision making contributes little or nothing to the motivation to implement the decision, usually yields adverse motivation	Decision making contributes relatively little motivation	Some contribution by decision making to motivation to implement	Substantial contribution by decision-making processes to motivation to implement	38.

## PROFILE OF ORGANIZATIONAL CHARACTERISTICS (Continued)

Organizational variable					Item no.
f. To what extent are subordinates involved in decisions related to their work?	Rarely	Rarely involved in decisions; occasionally consulted	Usually are consulted but ordinarily not involved in the decision making	Are almost always involved in all decisions related to their work	39.
g. Is decision making based on man-to-man or group pattern of operation? Does it encourage or discourage teamwork?	Man-to-man only, discourages teamwork	Man-to-man almost entirely, discourages teamwork	Both man-to-man and group, partially encourages teamwork	Largely based on group pattern, encourages teamwork	40
6. Character of goal setting or ordering					
a. Manner in which usually done?	Orders issued	Orders issued, opportunity to comment may or may not exist	Except in emergencies, goals are set or orders issued after discussion with subordinates of problems and planned action	Except in emergencies, goals are established by means of group participation	41
b. To what extent do the different hierarchical levels tend to strive for high performance goals?	High goals pressed by top, generally resisted by subordinates	High goals sought by top and often resisted moderately by subordinates	High goals sought by higher levels but with occasional resistance by lower levels	High goals sought by all levels, with lower levels sometimes pressing for higher goals than top levels	42.
c. Are there forces to accept, resist, or reject goals?	Goals are overtly accepted but are covertly resisted strongly	Goals are overtly accepted but often covertly resisted to at least a moderate degree	Goals are overtly accepted but at times with some covert resistance	Goals are fully accepted both overtly and covertly	43
7. Character of control processes					
a. At what hierarchical levels in organization does major or primary concern exist with regard to the performance of the control function?	At the very top only	Primarily or largely at the top	Primarily at the top but some shared feeling of responsibility at middle and to a less extent at lower levels	Concern for performance of control functions likely to be felt throughout organization	44.
b. How accurate are the measurements and information used to guide and perform the control function, and to what extent do forces exist in the organization to distort and falsify this information?	Very strong forces exist to distort and falsify; as a consequence, measurements and information are usually incomplete and often inaccurate	Fairly strong forces exist to distort and falsify; hence measurements and information are often incomplete and inaccurate	Some pressure to protect self and colleagues and hence some pressures to distort; information is only moderately complete and contains some inaccuracies	Strong pressures to obtain complete and accurate information to guide own behavior and behavior of own and related work groups; hence information and measurements tend to be complete and accurate	45

## PROFILE OF ORGANIZATIONAL CHARACTERISTICS (Continued)

Organizational variable					Item no.
c. Extent to which the review and control functions are concentrated	Highly concentrated in top management	Relatively highly concentrated, with some delegated control to middle and lower levels	Moderate downward delegation of review and control processes; lower as well as higher levels perform these tasks	Review and control done at all levels with lower units at times imposing more vigorous reviews and tighter controls than top management	
					46.
d. Extent to which there is an informal organization present and supporting or opposing goals of formal organization	Informal organization present and opposing goals of formal organization	Informal organization usually present and partially resisting goals	Informal organization may be present and may either support or partially resist goals of formal organization	Informal and formal organization are one and the same; hence all social forces support efforts to achieve organization's goals	
					47
e. Extent to which control data (e.g., accounting, productivity, cost, etc.) are used for self-guidance or group problem solving by managers and non-supervisory employees, or used by superiors in a punitive, policing manner	Used for policing and in punitive manner	Used for policing coupled with reward and punishment, sometimes punitively; used somewhat for guidance but in accord with orders	Used for policing with emphasis usually on reward but with some punishment; used for guidance in accord with orders; some use also for self-guidance	Used for self-guidance and for coordinated problem solving and guidance; not used punitively	
					48.
8. Performance goals and training					
a. Level of performance goals which superiors seek to have organization achieve	Seek average goals	Seek high goals	Seek very high goals	Seek to achieve extremely high goals	
					49
b. Extent to which you have been given the kind of management training you desire	Have received no management training of kind I desire	Have received some management training of kind I desire	Have received quite a bit of management training of kind I desire	Have received a great deal of management training of kind I desire	
					50
c. Adequacy of training resources provided to assist you in training your subordinates	Training resources provided are only fairly good	Training resources provided are good	Training resources provided are very good	Training resources provided are excellent	
					51

## APPENDIX III

### SAMPLE SURVEY

#### Organizational Climate Questionnaire<sup>1</sup>

This questionnaire was developed for describing the organizational climate existing in an organization.

In completing the questionnaire, it is important that each individual answer each question as thoughtfully and frankly as possible. This is not a test; there are no right or wrong answers. The important thing is that you answer each question the way you see things or the way you feel about them. Your name or other identifying information is not required and you will not be identified regarding your responses. Your reply is completely voluntary.

For each of the statements below, please draw a circle around;

DA--If you DEFINITELY AGREE; that is, if the statement definitely expresses how you feel about the matter.

IA--If you are INCLINED TO AGREE; that is, if you are not definite, but think that the statement tends to express how you feel about the matter.

ID--If you are INCLINED TO DISAGREE; that is, if you are not definite, but think that the statement does not tend to express how you feel about the matter.

DD--If you DEFINITELY DISAGREE; that is, if the statement definitely does not express how you feel about the matter.

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<sup>1</sup>From George H. Litwin and Robert A. Stringer, Jr., Motivation and Organizational Climate. Division of Research, Graduate School of Business Administration, Harvard University, Boston, Massachusetts, 1968. (By permission of the publishers.)



- DA IA ID DD 1. The jobs in this Organization are clearly defined and logically structured.
- DA IA ID DD 2. A friendly atmosphere prevails among the people in this Organization.
- DA IA ID DD 3. You don't get much sympathy from higher-ups in this Organization if you make a mistake.
- DA IA ID DD 4. In this Organization it is sometimes unclear who has the formal authority to make a decision.
- DA IA ID DD 5. People are proud of belonging to this Organization.
- DA IA ID DD 6. The philosophy of our management is that in the long run we get ahead fastest by playing it slow, safe, and sure.
- DA IA ID DD 7. We have a promotion system here that helps the best man to rise to the top.
- DA IA ID DD 8. The policies and organization structure of the Organization have been clearly explained.
- DA IA ID DD 9. Red-tape is kept to a minimum in this Organization.
- DA IA ID DD 10. We don't rely too heavily on individual judgement in this Organization; almost everything is double checked.
- DA IA ID DD 11. In this Organization the rewards and encouragements you get usually outweigh the threats and criticism.
- DA IA ID DD 12. This Organization is characterized by a relaxed, easy-going working climate.
- DA IA ID DD 13. Our Organization has been built up by taking calculated risks at the right time.
- DA IA ID DD 14. I feel that I am a member of a well functioning team.
- DA IA ID DD 15. Around here management resents your checking everything with them; if you think you've got the right approach you just go ahead.

- DA IA ID DD 16. In this Organization we set very high standards for performance.
- DA IA ID DD 17. It's very hard to get to know people in this Organization.
- DA IA ID DD 18. In this Organization people are rewarded in proportion to the excellence of their job performance.
- DA IA ID DD 19. Excessive rules, administrative details, and red-tape make it difficult for new and original ideas to receive consideration.
- DA IA ID DD 20. Management makes an effort to talk with you about your career aspirations within the Organization.
- DA IA ID DD 21. Supervision in this organization is mainly a matter of setting guidelines for your subordinates; you let them take responsibility for the job.
- DA IA ID DD 22. There is a great deal of criticism in this Organization.
- DA IA ID DD 23. Decision-making in this Organization is too cautious for maximum effectiveness.
- DA IA ID DD 24. Our management believes that no job is so well done that it couldn't be done better.
- DA IA ID DD 25. People in this Organization tend to be cool and aloof toward each other.
- DA IA ID DD 26. There is not enough reward and recognition given in this Organization for doing good work.
- DA IA ID DD 27. You won't get ahead in this Organization unless you stick your neck out and try things on your own sometimes.
- DA IA ID DD 28. Our productivity sometimes suffers from lack of organization and planning.
- DA IA ID DD 29. Our philosophy emphasizes that people should solve their problems by themselves.

- DA IA ID DD 30. Around here there is a feeling of pressure to continually improve our personal and group performance.
- DA IA ID DD 31. There is a lot of warmth in the relationship between management and workers in this Organization.
- DA IA ID DD 32. There are an awful lot of excuses around here when somebody makes a mistake.
- DA IA ID DD 33. Management believes that if the people are happy, productivity will take care of itself.
- DA IA ID DD 34. As far as I can see, there isn't very much personal loyalty to the Organization.
- DA IA ID DD 35. In some of the projects I've been on, I haven't been sure exactly who my boss was.
- DA IA ID DD 36. People in this Organization don't really trust each other enough.
- DA IA ID DD 37. Our management is willing to take a chance on a good idea.
- DA IA ID DD 38. One of the problems in this Organization is that individuals won't take responsibility.
- DA IA ID DD 39. To get ahead in this Organization it's more important to get along than it is to be a high-producer.
- DA IA ID DD 40. Our management isn't so concerned about formal organization and authority, but concentrates instead on getting the right people together to do the job.
- DA IA ID DD 41. The philosophy of our management emphasizes the human factor, how people feel, etc.
- DA IA ID DD 42. If you make a mistake in this Organization you will be punished.
- DA IA ID DD 43. In this Organization people don't seem to take much pride in their performance.

- DA IA ID DD 44. When I am on a difficult assignment I can usually count on getting assistance from my boss and co-workers.
- DA IA ID DD 45. In this Organization people pretty much look out for their own interests.
- DA IA ID DD 46. We have to take some pretty big risks occasionally to keep ahead of the competition in the organization we're in.

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