

# Policy-Decison and Organization Theory

NICHOLAS G. NICOLAIDIS

August 1960

John W. Donner Fund Publication No. 11  
School of Public Administration  
University of Southern California

POLICY-DECISION AND ORGANIZATION THEORY

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By

Nicholas G. Nicolaidis

with

A Foreword

by Professor John M. Pfiffner

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University of Southern California

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# Policy-Decision and Organization Theory

NICHOLAS G. NICOLAIDIS

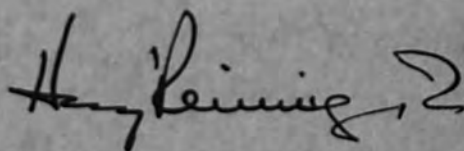
The John W. Donner Memorial Publications Fund was created in 1956 to honor the memory of one of the principal leaders in the movement for higher standards of public service in Southern California. Mr. Donner, who had a long and distinguished career in the City of Los Angeles, last served as Secretary-General Manager of the Los Angeles Police and Fire Pension Fund. He died in 1955.

Because of his great interest in improving the quality of public administration, Mr. Donner was very active in the establishment of the School of Public Administration at the University of Southern California. He promoted it; he enrolled in its classes; he earned his Master's degrees; he taught its classes in governmental accounting.

The Publications Fund which now bears the Donner name was established in 1956. Each year many works are completed in the affairs of government that ought to be made available to the files of the Doheny Library of the University.

In order to provide the financial basis for the publication of the works of Mr. Donner under the leadership of Los Angeles City officials, the School raised sufficient money to permit the School to embark on the publication of works priced at their actual cost of production; the Donner Fund provides the operating capital.

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School of Public Administration  
University of Southern California

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POLICY-DECISION AND ORGANIZATION THEORY

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A Dissertation

Presented to

the Faculty of the School of Public Administration  
University of Southern California

---

In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Public Administration

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by

Nicholas G. Nicolaidis

August 1960

## ACKNOWLEDGMENTS

This study is, to some extent, the result of a collective endeavor. It is part of a research project undertaken by a team of third year graduate students of the University of Southern California under the leadership of Professor John M. Pfiffner.

I am deeply grateful to Professor Pfiffner, not only for reading and thoughtfully criticizing the original draft of the study, but also for teaching me, as he has taught so many scholars and administrators, to look upon the study of organization as a living reality.

To Professors Wallace Best and Henry W. Reynolds, who read the first draft and made helpful comments and suggestions, and to Beatrice Markey for her valuable suggestions on format and text arrangement, and for editing the first draft, I wish to express sincerest appreciation.

Space limitations do not permit me to mention individually the names of all the graduate students who participated in this research project. Their contribution was substantial.

I extend my thanks also to Miss Erica Jentsch for her help in library research and bibliographical arrangements, and to the office staff of the Pakistan Project of the School of Public Administration for their cooperation and assistance.

N.G.N.

July 1960

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The School of Public Administration has for several years conducted a seminar composed primarily of third-year graduate students. This seminar began in 1943, when it was substituted as an interdisciplinary project among the Department of Psychology, the Department of Sociology, and the School of Public Administration here at the University. Professors J. T. Guilford and Harvey J. Locke participated with us in these seminars.

Since that time, most of the participants in the seminar have been public administration students, and we have had the pleasure to concentrate on various aspects of organization and behavior with emphasis on both theory and the use of empirical data.

A Foreword By

PROFESSOR JOHN M. PFIFFNER

School of Public Administration  
University of Southern California

The graduate student body of the School of Public Administration here is composed largely of rather mature persons who work full-time in some administrative capacity and study part-time at the University. Their student-work relationship has both advantages and disadvantages from the standpoint of academic discipline. For the purpose of empirical research, however, this relationship presents decided advantages in that it enables us to tap a rich store of case material. The student enrollment during 1950-51, consisted of a number of persons in administrative posts, and a considerable proportion of these were either city managers, assigned city managers, or administrative assistants to city

## FOREWORD

The School of Public Administration has for several years conducted a seminar composed primarily of third-year graduate students. This seminar began in 1949, when it was subsidized as an interdisciplinary project among the Department of Psychology, the Department of Sociology, and the School of Public Administration here at the University. Professors J. P. Guilford and Harvey J. Locke participated with me in these seminars.

Since that time, most of the participants in the seminar have been public administration students, and we have tended, therefore, to concentrate on various aspects of organization and leadership with emphasis on both survey of the literature and gathering of empirical data. For the first few years we used the critical incident approach developed by John C. Flanagan. Several empirically-based studies--including theses and dissertations--resulted from the use of this approach.

In recent years it has become increasingly apparent to me that we should devote more time to decision-making and the decision process, especially in view of the prominence which these phenomena have achieved in administrative literature, particularly in the writings of Herbert Simon. I found this literature to be rather obscure and difficult to understand, and also felt that it lacked empirical evidence and illustrative case material. I, therefore, decided that the 600 Seminar for the academic year 1958-59 should attempt to gather and analyze actual decisions, with students, themselves, as the interviewers and field workers.

The graduate student body of the School of Public Administration here is composed largely of rather mature persons who work full-time in some administrative capacity and study part-time at the University. This student-work relationship has both advantages and disadvantages from the standpoint of academic discipline. For the purposes of empirical research, however, this relationship presented decided advantages in that it enabled us to tap a rich store of case material. The student enrollment, during 1958-59, consisted of a number of persons in administrative posts, and a considerable proportion of them were either city managers, assistant city managers, or administrative assistants to city

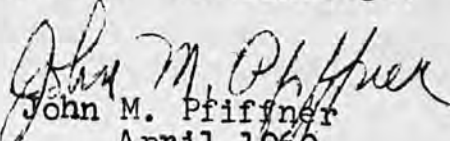
managers. This occupational relationship of the students with city government accounts for the large sampling of decisions from the council-manager environment.

It was decided in the summer of 1958 that in selected situations the professors working on the Pakistan Project here at the University should have a research assistant to help them in the preparation of conference presentations and to prepare written materials which would enrich the experiences of the Pakistani officials. Mr. Nicholas Nicolaidis was appointed as my research assistant. Early reports of the research analyzed in this study served as the basis for Group Work Sessions with the Pakistanis.

This dissertation reports and analyzes a year's work on the part of a dozen or more mature graduate students of superior ability, who were led with a rather loose rein by me and assisted by Mr. Nicolaidis, who was a member of the seminar and attended all sessions.

As Mr. Nicolaidis has emphasized in his dissertation, this research was exploratory in nature, and we are very much aware of its methodological shortcomings. Some of these became apparent to us as we went along, and we made serious efforts to correct them. However, our methodology has been empirical. We have gone into the field and collected the raw materials of administration. The study reports the process of maturation which took place as the seminar progressed. It is hoped that future seminars will experience this same maturation in the development of methodology.

The manner in which Mr. Nicolaidis has analyzed the results of the study and compared our findings with the general body of organization theory is a stimulating example of the value of such empirical research as a start toward clarification of our theory in terms of what actually goes on in organizations. In its analytical and interpretive aspects the dissertation has gone far beyond the work of the seminar in many instances, but, in general, it reflects the seminar discussions and reports faithfully the students' evaluation of the findings.

  
John M. Pfiffner  
April 1960

Professor of Public Administration  
University of Southern California

## CHAPTER I

### INTRODUCTION

Policy and decision are treated in most of the current writings on organization as closely interrelated terms. Consequently, their paired study should not need any specific explanation for the reader who is familiar with the basic trends in current organization thought.

On the contrary, the study of the policy-decision pair in conjunction with organization theory needs an explanation, because these three entities are treated in this thesis in a different and rather novel way from the conventional approach.

According to the traditional approach, organization theory is a generic term, and policy-decision is a specific one. In this context the policy-decision process is considered as a part of a group of processes which together comprise the organization.

The basic methodological approach of this research was to study organization through an analysis of the decision-making process. In this approach decision-making was used as a replica or a model of the organization as a whole, and the study of the decision-making process was substituted for the study of the organization as a complex entity. This approach, of course, was not invented by the writer of this study but is known from the writings of Herbert Simon and others.<sup>1</sup>

A model cannot be used effectively unless its properties are well known. Consequently, the study of the decision-making process as such is a necessary prerequisite for its instrumental use, in organization

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<sup>1</sup>Herbert Simon is generally considered as the father of this method. For an account of his thesis, see John M. Pfiffner and Frank P. Sherwood, Administrative Organization (New York: Prentice-Hall, Inc., 1960), pp. 386-401.

research. Since decision is also closely related to policy, the need for the study of the policy-decision pair in conjunction with organization theory is obvious.

## I. STATEMENT OF THE PROBLEM

### The Dual Character of the Research Problem

The above introduction outlined the basic dimensions of the research problem of the present study. As indicated this problem was both theoretical and methodological.

From a theoretical point of view the perspective was the collection of sufficient empirical data for the purpose of constructing inductively a theory on organization.

From a methodological point of view the perspective was the use of decision-making as a unit of analysis as well as a research tool.

### Basic Theoretical and Methodological Dimensions of the Problem

This basic dual problem was analyzed by means of the following five questions. Response to these questions was the terminal objective of this study:

1. What is policy and policy-making?
2. What is decision and decision-making?
3. What are the policy-decision interrelations?
4. What are the interrelations between the decision-making process and organization? Is decision-making a part only, or can it be used also as a replica or a model for the study of the organization as a whole?
5. What is an organization and what could be considered as relevant to an empirical theory



of organization on the basis of the empirical evidence produced by the analysis of the policy-decision process?

## II. IMPORTANCE OF THE STUDY

The importance of organization in our lives has been so well stated in the vast literature that it does not require great imagination to appreciate the general usefulness of a study attempting to secure insights and accumulative data in this field of human endeavor. Although it is unnecessary and beyond the scope of this study to restate all the general premises upon which the usefulness of organization research lies, nevertheless, it seems necessary and appropriate to briefly review the present status of organization research and the importance which decision-making analysis has occupied in it.

### A Brief Review of the Development of the Science of Organization

Early scientific management movement; the age of reason. Organizations are not something new in human history. They are as old as mankind. However, attention was centered on organization theory as a distinctive discipline of human thought only at the beginning of the current century with the so-called scientific management movement.

The scientific management movement did not come as a more progressive view of an old problem but as a challenge to the traditional approach--a revolution promising to change our destiny for the better by advancing material prosperity and eliminating personal, organizational and social conflicts through a scientific determinism based entirely on the mighty force of reason.<sup>2</sup>

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<sup>2</sup>The thesis that the scientific method is the only method to determine the best solutions to human problems was not, of course, anything new. The new element was that science can and must be used not only for the big questions of life but also for the most specific details of our daily actions as, for example, pig iron

The organization scientists of the first quarter of the twentieth century with their contributions to the theory and practice of scientific management brought new hope for better living by increasing productivity through scientific development of organization efficiency. Organizational scientism<sup>3</sup> not only replaced to some extent the hopes which preceding generations placed upon the accomplishment of certain social and political ideals,<sup>4</sup> but it really marked a new era in technological progress through scientific development of organized effort.

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shoveling. The further implication of this premise was that practically nothing should be left outside of scientific determinism. Albert Lepawsky, Administration: the Art and Science of Organization and Management (New York: Alfred A. Knopf, 1949), p. 125, gives a vivid illustration of this conception: "Following the publication of Taylor's Principles, a flood of books and articles on scientific management appeared . . . which attempted to apply the new panacea to almost every human endeavor. Mrs. Scudder Klyce even wrote an article on 'Scientific Management and Moral Law.'"

<sup>3</sup>William H. Whyte, Jr., The Organization Man (New York: Doubleday and Company, Inc., 1956), p. 26, defines scientism as "the promise that with the same techniques that have worked in the physical sciences we can eventually create an exact science of man." For a critical analysis of the term, see also pp. 26-35.

<sup>4</sup>The following quotation from Reinhard Bendix, Work and Authority in Industry (New York: John Wiley and Sons, 1957), p. 275, is characteristic of this philosophical perspective: "M. L. Cooke stated that the visions of Christianity and the dreams of democracy could not fully be realized until the principles of scientific management have permeated every nook and cranny of the working world. . . ." In Taylor's own words: "In its essence scientific management involves a complete mental revolution on the part of the working men . . . and it involves an equally complete mental revolution on the part of those on the management's side. . . ." Quoted in ibid., p. 274; Dwight Waldo, The Administrative State (New York: Ronald Press, 1948), pp. 65 ff.

Social and psychological revelations: the age of enlightenment. While the organization thought of the first quarter of the twentieth century was sharp, clear-cut, full of confidence in the so-called classical principles of organization and their foundation on reason, the second quarter marked an era of doubt.

First, the Hawthorne experiments disclosed that human beings are not merely instruments of production. These studies found that human productivity is not a simple mechanical procedure of muscular motions but a complex socio-psychological process springing from the inner sanctum of the human psyche and the complex grid of man's social setting.<sup>5</sup>

Second, a number of social scientists realized that organizations are not isolated or closed systems functioning independently of their environment, but they are parts of a broader social system--a social confederacy--which conditions them.<sup>6</sup>

In the light of these findings a metamorphosis of organization theory occurred.<sup>7</sup> The borders of organization theory have been extended, and organizations are no longer of interest to efficiency engineers, alone, but to a multitude of social scientists. Organization analysis has become an inter-disciplinary concern.

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<sup>5</sup>Stuart Chase, The Proper Study of Mankind (New York: Harper and Brothers Publishers, 1956), pp. 160-64, presents a brief but vivid description of these experiments and their implications in organization theory; for a more detailed account, cf. F. S. Roethlisberger and W. J. Dickson, Management and the Worker (Cambridge: Harvard University Press, 1939); for their impact on the theory of organization, cf. Pfiffner and Sherwood, op. cit., pp. 100-102.

<sup>6</sup>Phillip Selznick, Leadership in Administration (Evanston, Ill.: Row, Peterson, 1957); Phillip Selznick, TVA and the Grass Roots (Berkeley: University of California Press, 1949); Peter M. Blau, The Dynamics of Bureaucracy (Chicago: University of Chicago Press, 1955); Pfiffner and Sherwood, op. cit., p. 13.

<sup>7</sup>Pfiffner and Sherwood, op. cit., p. 108.

Theses and antitheses: the age of analysis. In spite of the fact that this movement toward a social and comprehensive versus a mechanical and limited approach to organization analysis provided new views of organization theory, it nevertheless failed to develop a satisfactory synthesis of orthodox and socio-psychological trends in organization thought. Using the terminology of dialectic logic, it can be said that organization theory has moved from thesis to antithesis, but it has not yet reached the stage of synthesis.

Synthesis: the present perspective. In summary, organization theory at the present moment is in ferment. Although a great deal of knowledge about organizations has been accumulated during the last few decades, organization theory has failed, nevertheless, to integrate under one unified construct the various ideas recorded in its literature and is not able to present a satisfactory synthesis of them. The problem of synthesis stands today in the center of theory's perspectives.

Need for a "new deal" in organization theory and research. Theorization on the basis of available empirical observation and experimental data has been questioned by a number of scientists who think that a more drastic reconsideration of the postulates concerning organization theory, as well as the methodology on organization research, is needed. The search for a "new deal" in organization theory and research is predominant in many writings on organization. The great variety of ideas recorded throughout the current literature substantiates best the fermentation of the organization thought and the need for new theoretical and methodological models.

Generally speaking, the following central tendencies can be traced in current organization literature:

1. Organizations are complex and multi-dimensional social units, and they must be studied as such.
2. The new dimensions and perspectives in studying organizational complexity need new methods and techniques of organization analysis. Although a variety of methods and models have been proposed, no one model can be presented today as generally acceptable for studying and analyzing organizational complexity. In spite of this great variety of models and methods none of these have

been empirically tested as the indisputably preferable instrument for organization analysis within the framework of a multi-dimensional study of organization.

3. Beyond the methodological diversification, there is also no agreement on the orientations, perspectives and philosophical foundations of organization thought. A variety of ideas concerning organizations exists, but no satisfactory synthesis of these ideas can be presented. Basically, two schools of thought can be distinguished today. One tries to defend the traditional and orthodox principles of POSDCORB, emphasizing formal authority, hierarchy, and organization structure; the other tends to repudiate these principles and to be oriented toward the so-called social character of organization placing more, or exclusive, attention on group process, informal organization, and the socio-psychological factors of administrative behavior.

#### Current Emphasis on Decision-Making Analysis

The rapid advancement of the decision-making studies. As mentioned above, organization theory at the present moment is under reconsideration and may be under drastic revision. Scientists, trying to secure empirical observation in order to build theories, are also discussing a variety of methodological problems and possible models. Within this broad movement toward a re-examination of the postulates concerning organization theory, decision-making, as will be explained in Chapter II, marked rapid strides. A number of authors are considering decision-making as the best approach to the analysis and understanding of organization. Simon and his disciples went farther. They became pioneers and proponents of a new approach to organization research which considers decision-making as the proper framework for organization analysis. According to this school of thought, decision-making can be considered as a replica or a model of the organization as a whole, because decision-making is the "choice which prefaces every action."<sup>8</sup>

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<sup>8</sup>Herbert A. Simon, Administrative Behavior (New York: The Macmillan Company, 1958), p. 1.

This rapid advancement of decision-making study during the last decade is not a peculiar feature of the current organization thought, but it is almost a general characteristic of all the relative disciplines which also concentrated their attention on the study of decision-making. Indeed, during the last decade the study of decision-making made definite progress in almost every field of the social and behavioral sciences and became an interdisciplinary concern. More and more studies in the fields of philosophy, political science, international relations, government, economics, business, sociology, psychology, human relations, statistics, and mathematics are devoted to decision-making analysis.<sup>9</sup>

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<sup>9</sup>The following publications are indicative of this trend: T. Abel, "The Element of Decision in the Pattern of War," American Sociological Review, 6:853-59, 1941; John McDonald, "How Businessmen Make Decisions," Fortune, 52:84-87, August, 1955; Alfred Schuetz, "Choosing Among Projects of Action," Philosophy and Phenomenological Research, 12:161-184, December, 1951; G. L. S. Shackle, Expectations in Economics (Cambridge, England: Cambridge University Press, 1949); Richard Snyder, H. W. Bruck and Burton Sapin, Decision-Making as an Approach to the Study of International Politics (Princeton: Princeton University Organizational Behavior Section, 1954); Paul S. Taylor, "The Relation of Research to Legislative and Administrative Decision," Journal of Social Issues, 3:49-56, 1947; Paul Diesing, "Noneconomic Decision-Making," Ethics, 66:18-35, 1955; R. M. Hare, The Language of Morals (Oxford, England: Clarendon Press, 1952); Wayne A. R. Leys, Ethics for Policy Decisions (New York: Prentice-Hall, 1952); Donald R. Matthews, The Social Background of Political Decision-Makers (Garden City, N.Y.: Doubleday, 1954); George Katona, "Psychological Analysis of Business Decisions and Expectations," American Economic Review, 36:44-62, 1946; Duncan Black, "On the Rationale of Group Decision-Making," Journal of Political Economy, 56:23-24, February, 1948; Floyd Hunter, Community Power Structure: A Study of Decision-Makers (Chapel Hill, N.C.: University of North Carolina Press, 1953); Paul A. Miller, "The Process of Decision-Making Within the Context of Community Organization," Rural Sociology, 17:153-61, 1952; J. Marschak, "Norms and Habits of Decision-Making Under Certainty," in J. W. Dunlap, Mathematical Models of Human Behavior (Stanford, Conn.: Dunlap and Associates, Inc., 1955) pp. 45-53; Abraham Wald, Statistical Decision Functions (New York: John Wiley and Sons, 1950);

Limitations of current studies. In spite of the eminent position which decision-making has occupied already in the literature of the social sciences, its theoretical construct is limited by:

1. Abstract generalizations based more or less on deductive premises.
2. Sparse empirical validation of these premises.
3. Lack of generally acceptable and empirically tested research instruments, methods, and models for an inductive and behavioral foundation of a theory on decision-making.

The majority of these studies lay almost exclusive emphasis upon the question of why decision-making is important or what should be a normative model for a "good," "effective," or "rational" decision, but they neglect to undertake the tiresome task of a cross-examination of these theories in the light of reality by paying proper attention to the methodological problems involved, i.e., by developing instrumental devices and methodological constructs for an empirical study of decision-making in actual situations of daily life. For example, although Simon's decision model has received great attention in the academic circles, it has not yet been subjected to empirical validation. In a very few studies, conducted by Simon and his associates, the decision-making approach has been used either as a unit of analysis or a research tool.<sup>10</sup> It is equally true that this approach did not produce any revolutionary change in the minds of management's task force. Organization manuals are still today spelled out in the conventional way of description of functions, authority allocations, and lines of communication. Although socio-psychological concepts have enriched the literature of human relations and personnel

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Duncan R. Luce and Howard Raiffa, Games and Decisions: Introduction and Critical Survey (New York: John Wiley and Sons, 1957); etc.

<sup>10</sup>Although this approach framed many studies made by Simon's group, the only study where decision-making analysis was used as the basic methodological tool was: Herbert Simon and others, Centralization vs. Decentralization in Organizing the Controller's Department (New York: The Controllership Foundation, Inc., 1954).

administration, POSDCORB is still the predominant framework of administrative practice.<sup>11</sup>

### III. SCOPE OF THE STUDY

As mentioned above, the basic objective of this research project was to study organization through an analysis of the decision-making process.

The scope of such a study was three-fold:

1. To build adequate empirical knowledge on the policy-decision process which knowledge could facilitate the use of the policy-decision process as a tool for the study of organization.

2. To test the fitness and suitability of decision-making analysis as a methodological technique in organization research.

3. To use the empirical knowledge produced by the analysis of the policy-decision process to outline an empirically tested and inductively constructed theory on organization.

### IV. TERMS USED AND THEIR DEFINITIONS

#### Development of Terms as a Part of the Research

A great number of terms are used in this study. As will be explained in Chapter III, the research project on the findings of which this study was developed started

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<sup>11</sup>The initials of Planning-Organizing-Staffing-Directing-Coordinating-Reporting-Budgeting as first formulated by Luther Gulick and L. Urwick (eds.), Papers on the Science of Administration (New York: Columbia University, Institute of Public Administration, 1937), pp. 13-14; Dwight Waldo, Perspectives on Administration (University: University of Alabama Press, 1956), pp. 58-60, as well as virtually throughout the standard literature of organization and management.



without any formalization and structure or any preconceived definition of terms. On the contrary, the development of operational definitions based on the research findings was an integral part of the research objectives. The same pattern is followed by this study and for that reason it seems methodologically more proper and convenient that the exact definitions of the various terms be integrated with the supporting empirical evidence.

Although this is the leading principle in placing the definitions of the various terms used throughout the text of this study, nevertheless, it is considered also necessary that the definitions of the following terms which have particular significance for the orientation of the reader be outlined briefly here.

### Significant Terms

These definitions, presented for the purpose stated above, must not be viewed, however, either as final or operational and exact but as outlining rather than defining the context in which these terms are used in this study.

Policy. Policy is considered as a rule set forth for the purpose of guiding and directing present and future organizational activities.<sup>12</sup>

Decision. Decision is a choice of one among two or more alternative courses of action.<sup>13</sup>

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<sup>12</sup>For definitions of policy consult: Paul and Faith Pigors, "Let's Talk Policy," Personnel, 27:5-14, July, 1950; Herbert A. Simon Administrative Behavior, p. 59; Paul H. Appleby, Policy and Administration (University: University of Alabama Press, 1949), pp. 10 passim, believes that it is difficult to define policy; his principal contribution is the "policy continuum," the idea that countless numbers of decisions which make policy are constantly being made by administrators and people on the middle and lower levels of the hierarchy. For an operational definition, infra, p. 74.

<sup>13</sup>In psychology the process of choice is usually divided into three stages: (1) Deliberation: initial phase of choice where two or more alternatives are presented as possible courses of action; (2) Volition:

Organization theory. Organization theory is viewed here as a tentative generalization about organization phenomena and their interrelations on the basis of known facts.<sup>14</sup>

Empirical method. Empirical method is used in the context of a fact-oriented approach with field observation and immediate apprehension as its cornerstones.<sup>15</sup>

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the conscious adoption by the individual of a line of action; self conscious activity toward a determined end, manifested primarily by decision and intention; idea of an accepted end, with conscious activity toward it; and (3) Action; James Drever, A Dictionary of Psychology (Baltimore: Penguin Books, Inc., 1958), pp. 59, 61, 309. For other definitions of decision see: Simon, op. cit., pp. xii, 4, 46, 50-51; Irwin D. F. Bross, Design for Decision (New York: The Macmillan Company, 1953), pp. 18-20; James Bates, "A Model for the Science of Decision," Philosophy of Science, 21:326-39, 1954; Ward Edwards, "The Theory of Decision-Making," Psychological Bulletin, 51:380-417, 1954.

<sup>14</sup>See about the use of term "theory" in social research: Gunnar Myrdal, An American Dilemma (New York: Harper and Brothers, 1944), I, li-lii, 1055-64; Pauline Young, Scientific Social Surveys and Research (third edition; Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1956), p. 102; William J. Goode and Paul K. Hatt, Methods in Social Research (New York: McGraw-Hill Book Company, Inc., 1952), pp. 7-16; Morris R. Cohen and Ernest Nagle, An Introduction to Logic and Scientific Method (New York: Harcourt, Brace and Company, 1936), pp. 396-403; and Ernest Nagel, "On the Statement 'The Whole is More than the Sum of Its Parts,'" in Paul F. Lazarsfeld and Morris Rosenberg (eds.), The Language of Social Research: A Reader in the Methodology of Social Research (Glencoe, Ill.: The Free Press, 1955), pp. 519-527.

<sup>15</sup>About empiricism and empirical methods, see: Vergilius Ferm (ed.), A History of the Philosophical Systems (Ames, Iowa: Littlefield, Adams and Co., 1958), pp. 253-65, 329-39, 387-404; Carl G. Hempel, Fundamentals of Concept Formation in Empirical Science (Chicago: University of Chicago Press, 1958); Tor F. Lenzen, Procedures of Empirical Science (Chicago: University of

Inductive method. Inductive method is generally defined as that approach where inferences are drawn through a thinking process moving from specific and particular premises to more general and abstract ones.<sup>16</sup>

Nonstructured research. Nonstructured research is used here to describe a research approach beginning with the collection of empirical data without either any strictly pre-designed research plan or any formalization as far as the instruments, questionnaire forms, or specific research procedures. Basically, this approach is unsympathetic to any formalization which could distort or misinterpret the data in an effort to confine the research development within the pre-designed and pre-structured research plan.<sup>17</sup>

## V. THE METHODOLOGY

A full account of the methodology of this thesis is presented in Chapter III. Therefore, only the main dimensions of it will be outlined here. Basically, this research can be divided into two parts: documentary and empirical.

The empirical part of the research was based on the analysis of data collected from actual organizational situations. As mentioned above, decision-making analysis was the basic framework for gathering these empirical data. Decisions collected by the members of the 600 Seminar in Public Administration under the direction of

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Chicago Press, 1958); George De Santillana and Edgar Zilsel, The Development of Rationalism and Empiricism (Chicago: University of Chicago Press, 1958); and Joergen Joergensen, The Development of Logical Empiricism (Chicago: University of Chicago Press, 1958).

<sup>16</sup>Young, op. cit., p. 104.

<sup>17</sup>This definition is identical with that given by Professor John M. Pfiffner at the beginning of the 600 Seminar in Public Administration in September, 1958.

Professor John M. Pfiffner comprised the empirical data of this research. Besides the text of these decisions, the discussions which took place in this seminar, where a number of the above decisions were subject to critical analysis, were also a very valuable source of supplementary and penetrative insights into the subjects.

The documentary and empirical phases of this research were not given equal attention. Emphasis was placed on the empirical part of the study, and the research on literature was auxiliary and selective rather than cardinal and comprehensive. The basic methodological perspective was to inductively construct an empirical theory on policy, decision and organization as free as possible from pre-conceived ideas and pre-developed theoretical schemes on the subject.

## VI. ORGANIZATION OF THE REMAINDER OF THE STUDY

The remainder of this study is divided into six additional chapters as follows:

Chapter II is devoted to a brief review of the current literature in regard to the questions investigated in this study.

Chapter III presents an account of the research undertaken by the research team of the 600 Seminar, its yield and value in terms of expectations and findings as well as comments on the methodology used and the method of presentation of the findings.

Chapters IV and V present the research findings on policy and policy-making and decision and decision-making. They attempt to examine critically certain concepts recorded in the current literature.

Chapter VI deals with the policy-decision relationships.

In Chapter VII the theory and methodology of organization research are examined in the light of the above findings.

## CHAPTER II

### REVIEW OF THE LITERATURE

Literature related to the questions investigated can be found in such a variety of sources and is so voluminous that an exhaustive and all-inclusive review of the relevant works is obviously beyond the scope of this study. Consequently, the documentary foundation of this research project was necessarily based on a number of selected bibliographical sources, gathered from the following areas:

1. Literature on scientific research dealing with the philosophical foundations, the character, the frame of reference and the general principles of scientific inquiry.

2. Literature on social research dealing with the specific problems of application of the principles of scientific method to the study of social phenomena with their complexity, qualitative data, and their unique character where human beings are simultaneously observers and phenomena.

3. Literature on organization research. During the last few decades organization research, i.e., the application of the scientific method to the study of organizational problems, showed a remarkable growth.<sup>1</sup>

4. Literature on policy and decision-making. As mentioned previously,<sup>2</sup> literature on decision-making marked also rapid strides during the last years and is quite extensive.

Works from the first two areas were used in this study on an entirely random and auxiliary basis. The third area was covered by a brief survey of the most basic or characteristic readings, while a more detailed review was directed to the fourth area.

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<sup>1</sup>Supra, pp. 3-7.

<sup>2</sup>Supra, pp. 7-10.

Thus, this chapter is divided into the following four parts:

1. A general view of organizational literature.
2. A review of the major methodological approaches to organization analysis recorded in the above literature.
3. A general view of the literature on decision-making.
4. A review of the use of decision-making analysis in the study of administrative organization.

## I. A GENERAL VIEW OF ORGANIZATION LITERATURE

### Frames of References and Perspectives on Organization Study

Organizations are complex and multi-dimensional entities of the real world. The study of organizations falls within the area of many disciplines such as administration, sociology, psychology, anthropology, political science, economics, and history. Consequently, organization study can be developed within a variety of frames of reference and perspectives dependent on the particular interests of the students. The following are some of the most basic frames of reference and perspectives as recorded in the current literature.

Organization as a product of historical developments. This frame of reference used in all or some of the studies of Beard, Gaus, Macmahon, Mansfield, Waldo, and White is based on the premise that there exists a close relationship between the present and past. This relationship offers a basis for understanding the present and predicting the future by analyzing trends disclosed in the study of the past.<sup>3</sup>

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<sup>3</sup>Dwight Waldo, Perspectives of Administration (University: University of Alabama Press, 1956), pp. 50-76.

Organization as a social phenomenon. This approach which dominates the works of Weber, Mayo, Warner and Low, Clemmer, Miller and Form, Whyte and Selznick views organizations as parts of man's social setting or, in other words, as social institutions conditioned by the forces which dominate society as one complex entity.<sup>4</sup>

Organization as a cultural-anthropological phenomenon. This approach stands very close to the previous one and belongs there in terms of general classification. However, this approach places more emphasis on cultural differences and ecology than the approach which considers organization merely as a social phenomenon. This emphasis is conspicuous in the works of Malinowski, Gardner and Moore.<sup>5</sup>

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<sup>4</sup>For a statement of Weber's thesis see Robert K. Merton and others, Reader in Bureaucracy (Glencoe, Ill.: The Free Press, 1952), pp. 18-27, 60-68, 92-100; for a brief analysis and critical appraisal of his methodological approach see Peter M. Blau, Bureaucracy in Modern Society (New York: Random House, 1956), pp. 27-36; H. H. Gerth and C. Wright Mills, From Max Weber: Essays in Sociology (New York: Oxford University Press, 1946); for further data about the other authors see: Elton Mayo, The Social Problems of an Industrial Civilization (Boston: Harvard Graduate School of Business Administration, 1945), pp. 51-56; W. Lloyd Warner and O. Low, The Social System of the Modern Factory (New Haven: Yale University Press, 1947); W. Lloyd Warner and Paul Lunt, The Social Life of a Modern Community (New Haven: Yale University Press, 1941); Donald Clemmer, The Prison Community (Boston: The Christopher Publishing House, 1940); Delbert C. Miller and W. H. Form, Industrial Sociology (New York: Harper and Brothers, 1951); William H. Whyte, The Organization Man (New York: Doubleday Anchor Books, 1956), pp. 3-15; Phillip Selznick, Leadership in Administration (Evanston, Ill.: Row and Peterson, 1957).

<sup>5</sup>Bronislaw Malinowski, A Scientific Theory of Culture and Other Essays (Chapel Hill: University of North Carolina Press, 1944), pp. 43-51; H. Jay Hogbin, Law and Order in Polynesia (New York: Harcourt, Brace and Co., 1934), p. xxxiii; Burleigh B. Gardner and David G. Moore, Human Relations in Industry (Chicago: Richard D. Irwin, Inc., 1950); Bronislaw Malinowski, The Dynamics of Culture Change (New Haven: Yale University Press,

Organization as a system of cooperative action.

This is the frame of reference in the studies of Barnard, Simon, Malinowski.<sup>6</sup> Barnard defines a cooperative system as "one which is a complex of physical, biological, personal and social components which are in a specific systematic relationship by reason of the cooperation of two or more persons toward at least one definite end."<sup>7</sup>

Organization as an organic system. In this approach characterizing the writings of Follett, Miller, and MacCurdy organization is analyzed and described in terms of analogy to the organic body or as an entity in itself different and distinctive from its component parts.<sup>8</sup>

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1945); Eliot D. Chapple, "Contributions of Anthropology to Institutional Psychiatry," Human Organization, 17:34-47, Winter, 1959.

<sup>6</sup>Chester I. Barnard, The Functions of the Executive (New York: Harvard University Press, 1938); Chester I. Barnard, Organization and Management (New York: Harvard University Press, 1948); Herbert A. Simon, Administrative Behavior (New York: The Macmillan Company, 1954); Malinowski, op. cit.

<sup>7</sup>Barnard, The Functions, p. 65.

<sup>8</sup>Waldo, op. cit., pp. 32-33; John Thompson MacCurdy, The Structure of Morale (Cambridge, England: Cambridge University Press, 1943), particularly pp. 163-167. The University of Michigan also has directed a number of researches devoted to the study of "organisms as systems." The studies of James G. Miller on a General System Theory; Renis Likert on Organization Aspects of Human Behavior; C. H. Coombs on Models for the Expression of Group Preference; G. E. Peterson and H. H. Paper on Information and Human Language; and T. G. Birdsall and W. P. Tanner, Jr. on Signal Detection, all approach organizations as organic systems, belonging to a unified hierarchy. For an account on the above studies consult Harry H. Goode, "Greenhouses of Science for Management," Management Science, 4:365-81, July, 1958; Woodrow Wilson, Constitutional Government in the United States (New York: Columbia University Press, 1917), p. 56 stated that "Government is not a machine but a living thing. It falls, not under the theory of the



Organization as part of a broader social federation. This is another perspective recorded in the writings of Simon, Dahl and Lindblom, and Dill. According to this approach, "There are three levels of multi-person units: (1) the smallest is the primary group; (2) the largest is the institution, such as the state, economic system, etc.; and (3) systems between are organizations."<sup>9</sup>

Organization as a mold of human personality and culture. This is another perspective characterizing the works of Whyte, Boulding, and to some extent Riesman. Their studies were focused on the impact of organizations in molding human personality and culture.<sup>10</sup>

Organization as a crossroads of individual and collective behavior. This was the framework of the "fusion theory" advanced by Bakke and Argyris.<sup>11</sup>

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universe, but under the theory of organic life. It is accountable to Darwin, not to Newton."

<sup>9</sup>John M. Pfiffner and Frank P. Sherwood, Administrative Organization (New York: Prentice-Hall, Inc., 1960), p.387; Robert A. Dahl and Charles E. Lindblom, Politics, Economics and Welfare (New York: Harper and Brothers Publishers, 1953); Henry Dennison, Organization Engineering (New York: McGraw-Hill Book Company, 1931), pp. 178-183; William R. Dill, "Environment as an Influence on Managerial Autonomy," Administrative Science Quarterly, 2:409-43, March, 1958; Arthur H. Brayfield and Walter H. Crockett, "Employee Attitudes and Employee Performance," Psychological Bulletin, 52:396-424, September, 1955.

<sup>10</sup>Whyte, op. cit.; Chris Argyris, Personality and Organization: The Conflict Between System and the Individual (New York: Harper and Brothers, 1957); David Riesman, The Lonely Crowd (Garden City, N.Y.: Doubleday and Company, 1953); Kenneth E. Boulding, "The Jungle of Hugeness," Saturday Review, 51:4-13, March, 1958; Harlan Cleveland, "Dinosaurs and Personal Freedom," Saturday Review, 42:12-14, 38, February 28, 1959.

<sup>11</sup>E. W. Bakke, The Fusion Process (New Haven, Conn.: Labor and Management Center, Yale University, 1955); Argyris, op. cit.; Chris Argyris, Human Relations in a Bank (New Haven: Labor and Management Center, Yale University, n.d.).

Organization as a production machine. Another frame of reference is that of organization as a production machine,<sup>12</sup> or as "the structuring of individuals and functions into productive relationships."<sup>13</sup>

Frames of Reference and Perspectives for the Study of Administrative Organization<sup>14</sup>

The last stated frame of reference is predominant in the field of administration. The basic administrative concern is about the nature of organization as a goal-accomplishing institution and the conditions under which its structure and functions accomplish these goals with the greatest possible degree of efficiency. Within this broad frame of reference the following approaches can be traced in the current readings on administration:

1. Descriptive of the structure and functions of the organization.<sup>15</sup>

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<sup>12</sup>For a discussion of the machine model see Waldo, op. cit., pp. 30-31.

<sup>13</sup>John M. Pfiffner and R. Vance Presthus, Public Administration (third edition; New York: The Ronald Press Company, 1953), p. 5; E. H. Anderson and G. T. Schwenning, The Science of Production Organization (New York: John Wiley and Sons, Inc., 1948), p. 22; James D. Mooney and Alan C. Reiley, The Principles of Organization (New York: Harper and Brothers, 1939); John M. Pfiffner, "Research in Organization Effectiveness," Public Personnel Review, 2:49-54, April, 1953.

<sup>14</sup>There are no definitions of administration and administrative organization generally accepted in the various readings. Pfiffner and Presthus, op. cit., p. 3 define administration as "the organization and direction of human and material resources to achieve desired ends." Others as "the art of getting things done," (Simon, op. cit., p. 1). The term is as used here and is as used within the context recorded in Pfiffner and Presthus.

<sup>15</sup>E. H. Anderson and G. T. Schwenning, op. cit., and Mooney and Reiley, op. cit., use this approach in their studies.

2. Analytical and causative, i.e., searching for the underlying or primary reasons of organizational behavior.<sup>16</sup>

3. Pragmatic or utilitarian, i.e., directed toward the study of the conditions under which an organization develops its highest degree of efficiency.<sup>17</sup>

4. Normative, i.e., seeking to lay down norms or standards of "model" or "ideal" administrative structure, thought, and behavior.<sup>18</sup>

5. Philosophical, i.e., attempts to articulate the perspectives of organization theory with the philosophical foundations of mankind or, in other words, to integrate the phenomena of organizational behavior with the generic process of human existence.<sup>19</sup>

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<sup>16</sup>Argyris, op. cit., work is dominated by this perspective.

<sup>17</sup>Studies illustrative of this approach are: A. L. Comrey, John M. Pfiffner and H. P. Beem, Studies in Organizational Effectiveness, I. The U.S. Forest Survey (Los Angeles: University of Southern California, 1951); Daniel Katz, Nathan Jacoby, and Nancy C. Morse, Productivity, Supervision and Morale (Ann Arbor: Survey Research Center, University of Michigan, 1950); Rensis Likert and Daniel Katz, Supervisory Practices as They Affect Employee Production and Morale (New York: American Management Association, 1948).

<sup>18</sup>About the normative models, see Merton and others, op. cit., pp. 27-33; Blau, op. cit.

<sup>19</sup>Paul Pigors, Leadership or Domination (Boston: Houghton Mifflin Company, 1935), pp. 264-68; Brooks Adams, The Theory of Social Revolutions (New York: The Macmillan Company, 1913), pp. 204-16; Wallace B. Donham, "The Theory and Practice of Administration," Harvard Business Review, 14:409, Summer, 1936; James Burnham, The Managerial Revolution (New York: The John Day Company, 1941); Charles A. Beard, Public Policy and the General Welfare (New York: Rinehart and Company, Inc., 1941), pp. 148-60.

Basic Methodological Orientations  
in the Study of Administrative  
Organizations

There could not be found a clear-cut line of distinction between the various philosophical and methodological orientations of the present students of organization. The differing distinctions made throughout the separate texts are rather arbitrary and overlapping. Nevertheless, the distinction between behaviorists and non-behaviorists stands essentially accurate in broad outline.

The behaviorist approach is inspired by the perspective of an exact science of man developed on the pattern of physics and mathematics. The idea is not new, but it goes back to the days of Descartes who, according to Whyte, "was seized with the idea that the discipline of mathematics could be extended to the affairs of man. Eventually, he thought, 'a Universal Mathematical Science' would solve the problem of society."<sup>20</sup> Although the idea is not new, it was, however, the writings of the schools of positivism<sup>21</sup> and the logical positivism<sup>22</sup> which inspired the idea that a real science of man can be something more than a Utopia.<sup>23</sup> Within the broad outline of behaviorism a great variety of trends can be classified. The following are most common characteristics of these trends:

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<sup>20</sup>Whyte, op. cit., pp. 27-28.

<sup>21</sup>A brief outline about this school can be found in Vergilius Ferm (ed.), History of Philosophical Systems (Ames, Iowa: Littlefield, Adams and Co., 1958), pp. 329-39; cf. also supra, pp. 12-13.

<sup>22</sup>A brief outline about logical positivism can be found in Ferm, op. cit., pp. 471-82; cf. also supra, pp. 12-13.

<sup>23</sup>For a more detailed discussion of the question of whether or not the study of man and his institutions can be advanced into a real and exact science, as well as the historical development of this thought, consult: Stuart Chase, The Proper Study of Mankind (revised edition; New York: Harper and Brothers, 1956), pp. 1-10; and F.S.G. Northrop, The Logic of the Sciences and the Humanities (New York: Meridian Books, Inc., 1959), pp. 328-47; cf. also supra, pp. 3-4, 12-13.

1. Empirical observation is the foundation stone of their theoretical constructs.<sup>24</sup>

2. Their philosophical perspective is focused on what is rather than on what ought to be.<sup>25</sup>

3. Research methods and procedures are characterized by a strong tendency toward preciseness, accuracy, quantification, abstract conceptualization schemes, mathematical symbols, and experimental validation.<sup>26</sup>

4. Theorization by means of mathematical models and symbols.<sup>27</sup>

As mentioned previously the above elements are more characteristic trends of the works of behaviorists than essential elements of each of them. Great variations exist from text to text. In a broad outline the students of organization can be classified into the following categories:

1. The proponents of the idea that the methodology of mathematics and physics must be the "blue-print" for the development of an exact organization science.<sup>28</sup>

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<sup>24</sup>Waldo, op. cit., p. 109.

<sup>25</sup>Alfred J. Ayer, Language, Truth and Logic (New York: Dover Publications, 1952); Joergensen, op. cit.; and supra, pp. 12-13.

<sup>26</sup>Waldo, op. cit.

<sup>27</sup>A characteristic work revealing this trend is Herbert A. Simon, Models of Man: Social and Rational; Mathematical Essays on Rational Human Behavior in a Social Setting (New York: John Wiley and Sons, Inc., 1957).

<sup>28</sup>Ibid.; D. Cartwright and L. Festinger, "A Quantitative Theory of Decision," Psychological Review, 50:595-621, 1943; Paul F. Lazarsfeld, Mathematical Thinking in the Social Sciences (Glencoe, Ill.: The Free Press, 1954); J. W. Dunlap (ed.), Mathematical Models of Human Behavior (Stanford, Conn.: Dunlap and Associates, Inc., 1955).

2. The proponents of the idea that an exact science of man does not mean necessarily an exact "blueprint" of the mathematical model. While they believe that observation, measurement, experimentation, and factual generalizations are essential parts of any scientific discipline, they do not think, however, that the mathematical models are the proper ones for a theory on organization.<sup>29</sup>

3. The proponents of the perspective that an exact science of man must be built on the basis of "factual premises" alone, excluding the so-called "value premises."<sup>30</sup>

4. The opponents of the above thesis who think that value premises and factual premises cannot be separated from the study of human life.<sup>31</sup>

On the other side of behaviorists, there stand a number of thinkers on organization who are skeptical about the above approaches, particularly the idea that mathematical equations can be used in solving all the human problems. Basically, they do not oppose the idea of scientific inquiry into the human problems, but they think that the aspirations, the perspectives and the methodology of behaviorists are inadequate, narrow, and unrealistic.<sup>32</sup>

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<sup>29</sup>Northrop, op. cit., pp. 255-64, et passim; Ferm, op. cit., p. 357.

<sup>30</sup>Ayer, op. cit.

<sup>31</sup>During recent years greater attention has been paid to the study of values. For an account of this trend cf. Waldo, op. cit., pp. 134-35; Wallace S. Sayre, "Trends of a Decade in Administrative Values," Public Administration Review, 11:1-9, Winter, 1951; and Norton E. Long, "Public Policy and Administration: The Goals of Rationality and Responsibility," Public Administration Review, 14:22-31, 1954.

<sup>32</sup>Whyte, op. cit., pp. 32-35; Long, op. cit.; and Dwight Waldo, The Study of Public Administration (Garden City, N.Y.: Doubleday and Company, Inc., 1955), pp. 60-66.

As mentioned above, the distinction between behaviorists and non-behaviorists is very broad. Within each category a great variety of more specific trends can be identified.

The behaviorists, for example, can be sub-classified into (1) experimentalists; (2) clinicians; (3) mathematicians; (4) sociometrists; (5) empiricists, etc.<sup>33</sup>

The non-behaviorists can be sub-classified also into (1) normative philosophers; (2) pragmatists; (3) idealists; (4) utopians; etc.<sup>34</sup>

A deeper analysis of their differences cannot be presented here because of the limitations mentioned at the beginning of the present chapter. A more detailed review of the above methodological approaches will be attempted however, in relationship to decision-making study.

## II. A REVIEW OF THE VARIOUS METHODOLOGICAL APPROACHES TO ORGANIZATION ANALYSIS

The approaches described in the previous part of this chapter are not, of course, clear-cut and distinctive in the current writings on organization, but they represent more or less characteristic trends. This means that in most of these works more than one of these perspectives, ultimate objectives, and methodological orientations can be traced.

Regardless of this diversification of the current readings on organization in their frames of reference, perspectives and orientations, there are to be found, nevertheless, certain common patterns of organization analysis which provide a classification scheme essentially accurate in broad outline.

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<sup>33</sup>About these categories, cf. John M. Pfiffner, Organization: The Science of Hierarchy (Los Angeles: University of Southern California, n.d.), pp. 12-14. (Mimeographed.)

<sup>34</sup>Cf. Ferm, op. cit., pp. 291-305, 315-28, 348, 387-404, 493-503.

Simplification is the most important issue in organization research. Indeed, organization as an empirical subject of the real world is so immersed with the endless variety and complexity of man's activities and interrelations that any effort to study all the relative facts is a herculean task beyond the abilities of the most ambitious and capable researcher. Thus, the most crucial question is how one could reduce the observable facts to a manageable size. In order to cope with this problem, organization scientists use generally four methods: (1) partial analysis; (2) model analysis; (3) skeleton or basic analysis; and (4) unit analysis.

### Partial Analysis

Partial analysis is the separate study of the various components of the empirical subject. The underlying premise in terms of generalizations is that the findings of these partial analyses can be assembled and articulated into a general theory on organization. An illustration of this approach is seen in Argyris,<sup>35</sup> where the findings of various specific studies and experiments are used for the construction of a general theory of the conflict between system and the individual.

### Model Analysis

In this approach the student of organization uses various models<sup>36</sup> either as description and conceptualization schemes or as analysis and theorization tools.

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<sup>35</sup>Ibid.

<sup>36</sup>In ordinary language the word model is used in various ways. In this study it is used with the context of something that resembles either accurately or in approximation something else. This resemblance may exist either in the appearance, or the functions or both. Pfiffner and Sherwood, op. cit., p. 59, state, "Models are really simplified images of what we think life is really like." Sometimes the term pattern is used as synonymous with the term model; e.g., Alvin W. Gouldner, Patterns of Industrial Bureaucracy (Glencoe, Ill.: The Free Press, 1954).



The use of models in description and conceptualization. As Northrop points out, a purely empirical observation is "that which is known by immediate apprehension alone. It is that portion of our knowledge which remains when everything depending upon inference from the immediately apprehended is rejected."<sup>37</sup> In other words, the first stage of any empirical research is comprised of facts that the observer, himself, has experienced through his own sense organs. The next stage is an attempt by the observer to conceptualize the apprehended facts and to describe them to his fellowmen who did not have the opportunity to observe and conceptualize these facts in the same way. To this end he tries to express his experience in terms of the experience of his fellowmen. This kind of communication is well-known and has been used extensively in almost all kinds of mental communication from the early days of civilized man. It is used in the Aesopean myths and in the parables of Jesus Christ. It is used extensively in our days, too. The teacher explains to his students the spherical shape of the globe by using either the example of a soccer ball or a small replica of the globe. This device of comparison, or analogous model, has been used also to a large extent in the description and conceptualization of administrative organizations. The organic body analogy, the machine model, etc., illustrate the usefulness of models in the conceptualization and description stage of organization research.<sup>38</sup>

The use of models in analysis and theorization. The description of observed facts does not terminate the scientific inquiry. On the contrary, it is only an intermediate step. The next step is the analysis of data and their interpretation in terms of general inferences. As Young points out:

Scientific analysis assumes that behind the accumulated data there is something more important and

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<sup>37</sup> Ibid., p. 39.

<sup>38</sup> Waldo, op. cit., pp. 26-49, describes the use of models in public administration; Christine Brooke-Rose, A Grammar of Metaphor (London: Secker and Warburg, 1958), deals with the techniques of metaphors.

revealing than the facts themselves that well-marshalled facts when related to the whole study have a significant general meaning, from which valid interpretations can be drawn.

. . . But systematic analysis is a special process. It is the creative aspect of the total study. Its function is to produce a sound intellectual "edifice," a body of thought which will aid in placing the gathered facts in their proper setting and relationships so that general inferences can be drawn from them.<sup>39</sup>

In this stage of research models also play an important role. The assumption is that the model is either a replica of empirical subject or at least a facsimile of it. Consequently, it provides both a classification scheme for placing the gathered facts in their proper setting and a theorization tool for drawing general inferences by interpreting the relationships among the properties of the observable empirical subject in terms of the known properties of the model. In nuclear physics, for example, the teacher may try to explain the atomic theory of Niels Bohr by using the model of the solar system or in administrative analysis the diagram of a system of hydraulic pipelines of different diameters is substituted for the analysis of a work flow system of an organization where the work is not evenly distributed among the various units of production.

Kinds of models and their use in the study of organization. Basically four categories of models can be used in organization analysis. These are (1) analogy models, (2) scale models, (3) abstract or symbolic models, and (4) combinations or variations of the above.<sup>40</sup>

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<sup>39</sup>Pauline V. Young, Scientific Social Surveys and Research (third edition; Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1956), pp. 509-10.

<sup>40</sup>Irwin D. Bross, Design for Decision (New York: Macmillan Company, 1953), pp. 163-69, classifies models into the following four categories: (1) physical, (2) abstract, (3) symbolic, and (4) mathematic.

The three basic types of models. The three basic types of models, i.e., the analogy, the scale, and the abstract or symbolic will be examined here.

1. Analogy models. An analogy model can be defined as a subject or a structure that resembles with approximation either the appearance or the functions or both of another subject or structure. The term analogy is used with the context of similarity. In this case between the two subjects or structures there are many similarities or in other words the one structure or subject is like the other.

Analogy models have been used very often in organization analysis.<sup>41</sup> The organic body, the machine, the nervous system, etc., are examples of analogy models used very often by the writers of organization in their descriptions and analyses of administrative organizations.<sup>42</sup> In the stage of description, analogy models have been used to facilitate and simplify the externalization and conceptualization of internally apprehended empirical knowledge. In this approach the structure and the properties of a well-known subject are substituted for the description of the structure and properties of an unknown one. In the stage of analysis and theorization analogy models are used as substitutes of the empirical subject. The well-known properties of the analogy model are substituted for the unknown properties of the empirical

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<sup>41</sup>Analogy models are used extensively not only in organization analysis but in both natural and social sciences. For a brief but good discussion of the use of models in both areas consult Bross, op. cit., pp. 161-82.

<sup>42</sup>The use of models in public administration is very vividly described in Waldo, op. cit., pp. 26-49. Sometimes physical science models are used in administration. This can be seen in Norbert Wiener, The Human Use of Human Beings (New York: Doubleday Anchor, revised edition, 1954), where cybernetics, entropy and feedback are used as analogy models in the study of administration. An example of using the biological body model in the analysis of organization and management is seen in Mason Haire, Psychology in Management (New York: McGraw-Hill Book Company, Inc., 1956), pp. 192-94.

subject under scrutiny, and inferences are drawn from the known to the unknown.

2. Scale models. Scale models perform a similar function to that of analogy models. The difference between an analogy model and a scale model is that in the case of an analogy model the similarities between observable subject and the model are more functional and morphological rather than dimensional, while in the case of a scale model proportional relationships exist between the dimensions of the observable subject and the model. In other words, a scale model can be defined as a subject or structure that resembles the appearance, the properties or the functions of another subject or structure and, in addition to this resemblance, a proportional relationship exists between all or some of the dimensions of the observable subject and the scale model.

Scale models are widely used in physics, engineering, construction, etc. For example, a model airplane under scale, instead of a real one, is tested in the wind tunnel of an aerodynamics laboratory or the scale model of a skyscraper is used by the architects for the analysis and study of the morphological aspects of their design. Scale models have been used in social sciences too, although in a smaller rate. The best known scale model in social sciences is the statistical sample.<sup>43</sup> A small proportion of selected units, a sample, is used as a model for the study of the empirical subject under analysis, the universe. Other scale models used in social sciences

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<sup>43</sup>One definite qualification of a scale model in physical sciences is the standard proportional relationship between each of its dimensions and the respective dimensions of the counterpart empirical subject. In social sciences the model is smaller in size than the empirical subject but its size is not determined exclusively on the basis of the size of the empirical subject. The size of a sample does not depend too much on the size of the universe but on its variability and other factors. For more detailed analysis of this problem consult: B. J. Mandel, Statistics For Management: A Simplifying Introduction to Statistics (Baltimore: Dangary Publishing Co., 1956), pp. 173-77; and J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1956), pp. 213-14.

are the family model,<sup>44</sup> the small group model,<sup>45</sup> the town model,<sup>46</sup> etc. All these models have been substituted for the analysis of larger entities of the real world such as the society, the big group or the big organization.<sup>47</sup>

Scale models are useful for both stages of organization research, i.e., the conceptualization and description stage as well as the analysis and theorization stage. Their usefulness in both stages is very

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<sup>44</sup>In strict terms family study must be classified under the unit analysis method rather than the scale model. The first known research which attempted to study society through the study of family was Frederic Le Play, Ouvriers Europeens (Paris: Imprimeries Imperiales, 1895). For a more recent study see: Carle Zimmerman and Merle Frampton, Family and Society (New York: Van Nostrand Co., 1935).

<sup>45</sup>Robert F. Bales, "The Equilibrium Problem in Small Groups," in Talcott Parsons, R. F. Bales, and E. A. Shils, Working Papers in the Theory of Action (Glencoe, Ill.: The Free Press, 1953), pp. 111-161; Edgar G. Borgatta and Robert F. Bales, "Task and Accumulation of Experience as Factors in the Inter-action of Small Groups," Sociometry, 16:239-52, 1953; Edward Gross, "Primary Functions of the Small Group," American Journal of Sociology, 60:24-29, 1954; Murray Horwitz, "The Recall of Interrupted Group Tasks: An Experimental Study of Individual Motivation in Relation to Group Goals," Human Relations, 7:3-38, 1954; Roland Pellegrin, "The Achievement of High Statuses and Leadership in the Small Group," Social Forces, 32:10-16, October, 1953, study the small group in the framework of a general sociological theory.

<sup>46</sup>In the studies of Paul Kellogg and Shelby Harrison, recorded in The Pittsburgh District: Civic Frontage (The Russell Sage Foundation, 1914) and W. Lloyd Warner and J. O. Low, The Social System of the Modern Factory (New Haven: Yale University Press, 1947), known as the Yankee City Series, the town was used as a model for the study of the society.

<sup>47</sup>For an account of the development of the social survey and the use of family or city models consult: Young, op. cit., pp. 3-79.

similar to that of analogy models. In addition, because of the proportional relationship between the dimensions of the observable subject and model, the scale model is superior as an analysis tool since it provides more precise and quantitative theorization.

3. Abstract or symbolic models.<sup>48</sup> The models described above such as those of the airplane, the skyscraper, the family or the small group are all subjects of the real world. They occupy a certain place in space and are apprehended through our sense organs. Besides these models, there are also in use, in almost all scientific research, other kinds of models which do not have any place in the real world but which belong to man's symbolic world. These are the abstract or symbolic models. In an abstract model the physical structure of the analogy or the scale model is replaced by certain symbols which have certain predetermined meaning and "symbolize" certain functions or properties as well as their interrelations. A set of mathematical equations, for example, can be used, instead of a physical model of an airplane in a wind tunnel, in order to determine the fitness of a certain structure under certain conditions of speed, heat or vibration.

Abstract or symbolic models are used in the advanced stages of all scientific disciplines, particularly in the natural sciences. Species of the abstract or symbolic models are the mathematical models. It can be said that the advancement of elaborate symbolic models in any discipline is a safe measure of its progress. The most well-known attempt to develop a mathematical model--the most advanced specie of the abstract models--in social sciences is seen in Simon.<sup>49</sup> Although symbolic models in organization analysis have not been advanced to the mathematical level of physical sciences, they are not entirely unknown. Diagrams, charts, and even mathematical equations, filling most of the current textbooks of organization, are illustrative of this tendency toward

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<sup>48</sup> Bross, op. cit., pp. 163-69, sub-classifies these models into (1) abstract, (2) symbolic, and (3) mathematic.

<sup>49</sup> Simon, Models of Man.

scientific progress through advancement of symbolic models.<sup>50</sup>

### Basic or Skeleton Analysis

Another methodological approach toward simplification is that of basic or skeleton analysis, i.e., description and analysis of the main lines only--the significant elements--of the empirical subject under study. In partial analysis particular details are studied and generalized inferences are drawn by induction from the particulars to the general. In basic, or skeleton analysis, the procedure is reversed. Only significant elements are subject to analysis, and answers on particular questions are sought deductively. POSDCORB is an example of basic analysis of the seven "main" functions of administration.<sup>51</sup> Another example is the "edifice of the basic principles of organization," i.e., unity of command, span of control, specialization, etc.<sup>52</sup> The common characteristic of all these approaches is that they seek to reduce the observable facts to only the significant ones. Both advantages and disadvantages of this approach are evident. The main disadvantage is that what is or is not significant is a matter of value judgment; and, moreover, this conclusion of significance has to be drawn in advance, i.e., before the collection of the empirical data.<sup>53</sup>

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<sup>50</sup>This tendency dominates many current readings as D. Cartwright and L. Festinger, "A Quantitative Theory of Decision," Psychological Review, 50:595-621, 1943; and L. J. Cronbach and G. C. Gleser, Psychological Tests and Personnel Decisions (Urbana, Ill.: University of Illinois Press, 1957). For a critical appraisal of the misuse of natural science models by social scientists, cf. infra, pp. 225-28, 237-43.

<sup>51</sup>Cf. Supra, p. 10.

<sup>52</sup>About these principles consult: John M. Pfiffner, The Supervision of Personnel: Human Relations in the Management of Men (New York: Prentice-Hall, Inc., 1951), pp. 42-49, as well as virtually throughout the standard literature of organization and management.

<sup>53</sup>Simon, Administrative Behavior, pp. 20-44, shows how certain "basic principles of organization" could not be basic and how such a judgment about what is or is not

## Unit Analysis

All the non-metaphysical disciplines, both natural and social, are dealing with complex entities of the real world. These complex entities are composed of parts or aggregations of parts. Thus, each of these entities can be subdivided into a great number of parts or "bits." First, the Greek philosopher and physicist, Democritus, 2400 years ago raised the question of whether or not this process of subdivision is infinite. He supported the thesis that there are small indestructible units, which he called "atoms." Democritus' "atom" is what is called today a "fundamental particle" or "molecule." As mentioned in a standard reference encyclopedia, "knowledge about the size and nature of the atom grew very slowly throughout the centuries when men were content merely to speculate about it."<sup>54</sup> The advancement of physics and chemistry was nothing else but an advancement of the human knowledge about this "fundamental particle" or "molecule." Physics and chemistry made their decisive upturn toward their present spectacular advancement from the time that they were able to identify their basic units, i.e., molecules and atoms and to concentrate their observations and analyses on them. Alchemy, their forerunner, was not able to reach its targets mainly because it failed to identify the proper unit of analysis.

Although in organization research the problem of identification of the basic proper unit for analysis has not been solved, it is, however, of paramount importance, and it has concentrated the attention of the students of administration.<sup>55</sup> Attempts to identify such a proper unit for analysis can be seen in works focused on the

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basic could falsify the early orientation of the student and confine him to really ambiguous elements.

<sup>54</sup>Funk and Wagnalls Standard Reference Encyclopedia (New York: Standard Reference Works Publishing Company, Inc., 1959), III, 770.

<sup>55</sup>Albert Lepawsky, Administration: The Art and Science of Organization and Management (New York: Alfred A. Knopf, 1955), p. 231, indicates that this problem was early pointed out by Aristotle, who stated: "As in other departments of science, so in politics, the compound should always be resolved into the simple elements or least parts of the whole."



individual,<sup>56</sup> the small group,<sup>57</sup> the "strategic posts,"<sup>58</sup> the "cultural web,"<sup>59</sup> the group sociogram,<sup>60</sup> etc. Simon made an attempt to analyze organizations by the use of

<sup>56</sup>Argyris, op. cit.; Chris Argyris, Human Relations in a Bank (New Haven: Labor and Management Center, Yale University); Bakke, op. cit.; Kurt Lewin, A Dynamic Theory of Personality (New York: McGraw-Hill Book Company, 1935); Whyte, op. cit.

<sup>57</sup>Pfiffner, Organization, p. 13; Robert F. Bales, "Some Uniformities of Behavior in Small Social Systems," in G. E. Swanson et al., Readings in Social Psychology (revised edition; New York: Henry Holt, 1952); Robert F. Bales, Interaction Process Analysis: A Method for the Study of Small Groups (Cambridge, Mass.: Addison-Wesley Co., 1950); Borgatta and Bales, loc. cit.; Dorwin Cartright and Alvin Zander (eds.), Group Dynamics: Research and Theory (Evanston, Ill.: Row and Peterson, 1953); Mason Haire, "Group Dynamics in the Industrial Situation" in A. Kornhauser et al. (eds.), Industrial Conflict (New York: McGraw-Hill Co., 1954), pp. 373-85; Andrew W. Halpin, "Current Conceptual Trends in Small Group Study: Social Psychology," Autonomous Groups Bulletin, 7:4-7, 1951-52; George G. Homans, The Human Group (New York: Harcourt, Brace Co., 1950); Murray Horwitz, "The Conceptual Status of Group Dynamics," Review of Educational Research, 23:309-28, October, 1953; Kurt Lewin, Resolving Social Conflicts: Selected Papers on Group Dynamics, ed. Gertrude Lewin (New York: Harper and Brothers, 1948); L. J. Moreno, "Old and New Trends in Sociometry: Turning Points in Small Group Research," Sociometry, 17:179-93, 1954; Herbert A. Simon, "A Formal Theory of Interaction in Social Groups," American Sociological Review, 17:202-11, 1952; Wm. F. Whyte, "Small Groups and Large Organizations" in H. J. Rohrer and M. Sherif, Social Psychology at the Crossroads (New York: Harper and Brothers, 1951), pp. 297-312.

<sup>58</sup>Not all subdivisions of an organization are equally important. Although all are essential, a few have greater significance in the operations of the organization. These are the so-called "key" or "strategic" posts. An attempt to isolate and study such a key department is seen in Herbert Simon, Centralization vs. Decentralization in Organizing the Controller's Department (New York: The Controllershship Foundation, Inc., 1954).

<sup>59</sup>Wm. F. Whyte, Human Relations in the Restaurant Industry (New York: McGraw-Hill Co., 1949); Warner and Law, loc. cit.; Clemmer, loc. cit.; cf. Barnard, op. cit., ch. VIV about the "strategic factor."

<sup>60</sup>J. H. Jacobs, "The Application of Sociometry to

units which resemble very much the molecules and atoms of physics and chemistry. In this attempt which will be examined in more detail in the next part of this chapter, Simon used the decision as the molecule of the organization and the premise as the atom.

### III. A REVIEW OF THE CURRENT LITERATURE ON DECISION-MAKING

#### Perspectives in Current Studies on Decision-Making

Basically, the following five perspectives in the study of decision-making can be distinguished throughout the various writings on decision-making.

1. The study of decision-making as a mental process or as a function of the human mind. The common characteristic of all these studies is that they attempt to study the relationship between thinking and deciding (choosing). Within this framework a great variety of studies can be classified--studies such as those which are directed toward the development of a general theory of human choice,<sup>61</sup> and those which are devoted to the analysis of the interrelations between decision-making and thinking.<sup>62</sup> Finally, there is a great variety of

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Industry," Sociometry, 8:181-98, May, 1945; Charles L. Howell, "Measurement of Leadership," Sociometry, 5:151-62, May, 1942.

<sup>61</sup>Cartwright and Festinger, op. cit.; Ward Edwards, "The Theory of Decision-Making," Psychological Bulletin, 51:380-417, 1954; E. J. Gibson and H. R. McGarvey, "Experimental Studies of Thought and Reasoning," Psychological Bulletin, 34:327-50, 1937; R. T. Livingston and D. B. Hertz, Decision Theory (New York: The American Society of Mechanical Engineers, Paper 52A-106, 1952); Donald W. Taylor and Olga W. McNemar, "Problem Solving and Thinking," Annual Review of Psychology, 6:455-82, 1955.

<sup>62</sup>W. Ross Ashby, Design for a Brain (New York: John Wiley and Sons, 1952); Jerome S. Bruner and others, A Study of Thinking (New York: John Wiley and Sons,

studies dealing with specific factors influencing the mental or behavioral attitudes in choosing among alternative courses of action, such as studies dealing with the problem of values in decision-making,<sup>63</sup> studies dealing with specific factors of decision-making as a mental process,<sup>64</sup> etc.

2. Another perspective in the study of decision-making is that of decision-making as a social process. Decision-making is studied either as a resultant of individual thinking and social influences or as a social process as such, i.e., as a product of individual interactions within the group. The common element in all these studies is that they approach decision-making in a social setting either as a process of passing from a set of individual values, tastes and goals to a pattern of

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1956); D. Cartwright, "Relation of Decision-Time to the Categories of Response," American Journal of Psychology, 54:174-96, 1941; Gibson and McGarvey, loc. cit.; Donald M. Johnson, "Problem Solving and Symbolic Processes," Annual Review of Psychology, 1:297-310, 1950; Arthur E. Murphy, The Uses of Reason (New York: The Macmillan Co., 1943); Taylor and McNemar, loc. cit.; Max Wertheimer, Productive Thinking (New York: Harper and Brothers, 1945).

<sup>63</sup>R. M. Hare, The Language of Morals (Oxford, England: Clarendon Press, 1952); Wayne G. Broehl, Jr., "Ethics and the Executive: The Small Decisions that Count," Dun's Review and Modern Industry, 69:45, 122-24, 1957; Charles N. Cofer, "Verbal Behavior in Relation to Reasoning and Values," in H. Guetzkow (ed.), Groups, Leadership and Men (Pittsburgh: Carnegie Press, 1951), pp. 206-17.

<sup>64</sup>J. W. Brehm, "Postdecision Changes in the Desirability of Alternatives," Journal of Abnormal and Social Psychology, 52:384-98, 1956; John Cohen, "Some Working Hypotheses and Provisional Conclusions in the Study of Committees and Conferences," Occupational Psychology, 26:70-77, 1952; Elihu Katz and Paul F. Lazarsfeld, Personal Influence (Glencoe, Ill.: The Free Press, 1955); John W. Reid, "An Experimental Study of 'Analysis of the Goal' in Problem Solving," Journal of General Psychology, 44:51-69, 1951.

social decision-making, or vice versa. A great variety of publications can be classified into this broad category. A number of works are directed toward the study of decision-making in a social setting and the interrelations between decision and social behavior.<sup>65</sup> Other studies deal with the impact of social-ethical values upon decision-making.<sup>66</sup> A number of authors studied decision-making in group dynamics,<sup>67</sup> while others used the historical approach in order to determine the impact of past decisions upon future actions and the underlying trends.<sup>68</sup> Finally, a great number of studies are devoted to the analysis of specific problems in social decision-making,

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<sup>65</sup>Kenneth J. Arrow, Social Choice and Individual Values (Cowles Commission for Research in Economics Monograph No. 12. New York: Wiley and Sons, 1951); Barnard, Functions; James Bates, "A Model for the Science of Decision," Philosophy of Science, 21:326-39, 1954; Clyde H. Coombs, "Social Choice and Strength of Preference," in R. M. Thrall, C. H. Coombs, and R. L. Davis (eds.), Decision Processes (New York: Wiley and Sons, 1954), pp. 69-86; M. Sherif, The Psychology of Social Norms (New York: Harper and Brothers, 1936); and Simon, Administrative Behavior.

<sup>66</sup>Hare, loc. cit.; Wayne A. R. Leys, Ethics for Policy Decisions (New York: Prentice-Hall, 1952); and Phillip Monypenny, "The Control of Ethical Standards in the Public Service," Annals of the American Academy of Political and Social Science, 297:98-104, 1955.

<sup>67</sup>Cohen, loc. cit.; Edward Gross, "Primary Functions of the Small Group," American Journal of Sociology, 60:24-29, 1954; and L. L. Durisch and R. E. Lowry, "The Scope and Content of Administrative Decision--The TVA Illustration," Public Administration Review, 13:219-26, 1953.

<sup>68</sup>Durisch and Lowry, loc. cit.; Leon Festinger, "Studies in Decision: I. Decision Time, Relative Frequency of Judgment and Subjective Confidence as Related to Physical Stimulus Difference," Journal of Experimental Psychology, 32:291-306, 1943; and Leon Festinger, Henry W. Riecken, and Stanley Schachter, When Prophecy Fails (Minneapolis: University of Minnesota Press, 1956).

such as decision-making in relation to culture,<sup>69</sup> decision-making in relation to the question of leadership,<sup>70</sup> decision-making in relation to personality and environment,<sup>71</sup> works studying decision-making in the framework of the social psychology,<sup>72</sup> or community decision-making.<sup>73</sup> All of these works illustrate multidimensional approach in studying decision-making in a social setting.

3. Decision-making as an organizational process can be identified also as another main perspective in the study of the decision, although it is obvious that in terms of a general classification it belongs to the more general class of social decision-making. Because of this interrelation, the general framework of perspectives in the literature discussed in the previous paragraph is applicable also to the study of organizational decision-making. It is unnecessary, therefore, to repeat it here by mentioning relative studies. However, certain studies directed more specifically to organizational decision-

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<sup>69</sup>Felix M. Keesing and Marie M. Keesing, "Opinion Formation and Decision-Making," in Elite Communication in Samoa: A Study of Leadership (Stanford, California: Stanford University Press, 1956), pp. 91-129.

<sup>70</sup>Philip Selznick, Leadership in Administration: A Sociological Interpretation (Evanston, Ill.: Row, Peterson, 1957); and Norman R. F. Maier, "The Quality of Group Decisions as Influenced by the Discussion Leader," Human Relations, 3:155-74, 1950.

<sup>71</sup>Donald S. Werner, Personality, Environment and Decision-Making: An Exploratory Investigation of the Influence of Personality and Environment on Decision-Making as Indicated by the Relation Between Leadership and Prediction Measures in Three Situations Differing in the Frequency of the Stimulus Event (Ph.D. in Dissertation Abstracts, 1955. New York: New York University, 1955), XV, 1265-1266.

<sup>72</sup>Morris Rosenberg, Edward A. Suchman, and Rose K. Goldsen, Occupations and Values (Glencoe, Ill.: The Free Press, 1957).

<sup>73</sup>Thomas L. Norris, "Decision-Making Activity Sequences in a Hacienda Community," Human Organization, 12:26-30, 1953.

making as a distinctive species should be mentioned, such as those which are directed toward a theory of organizational decision-making,<sup>74</sup> the impact of environment in organizational decision-making,<sup>75</sup> studies viewing organizational decision-making as a manifestation of group dynamics,<sup>76</sup> or as a behavioral attribute of management,<sup>77</sup> studies investigating the relationships between decisions and functions allocation,<sup>78</sup> and others directed more

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<sup>74</sup>Barnard, loc. cit.; H. D. Mills, "Organized Decision Making," Naval Research Logistics Quarterly, 2:137-43, September, 1955; and William T. Morris, Rationalization of Industrial Decision Processes (Ohio State University, College of Engineering, Engineering Experiment Station Bulletin No. 163. Columbus, Ohio: Ohio State University, 1957).

<sup>75</sup>Alfred Schuetz, "Choosing Among Projects of Action," Philosophy and Phenomenological Research, 12:161-84, December, 1951.

<sup>76</sup>Peter M. Blau, "Co-operation and Competition in a Bureaucracy," American Journal of Sociology, 59:530-35, 1954; and William J. Gore, "Administrative Decision-Making in Federal Field Offices," Public Administration Review 16:281-91, 1956.

<sup>77</sup>Sune Carlson, Executive Behavior: A Study of the Work Load and the Working Methods of Managing Directors (Stockholm, Sweden: C. A. Strömberg Aktiebolag, 1951); Ernest Dale, "New Perspectives in Managerial Decision-Making," Journal of Business, 26:1-8, 1953; Robert Dubin, "Decision-Making by Management in Industrial Relations," American Journal of Sociology, 54:292-97, 1949; and Robert Tannenbaum and F. Massarik, "Participation by Subordinates in the Managerial Decision-Making Process," Reprint No. 14, Institute of Industrial Relations, University of California, 1950. Reprinted from the Canadian Journal of Economics and Political Science, 16:408-18, 1950.

<sup>78</sup>Mills, loc. cit.; L. I. Hunt, "Decisions and Their Significance," Occupational Psychology, 16:134-42, 1942; and Tannenbaum, loc. cit.

specifically to decision-making in governmental organizations.<sup>79</sup>

4. A fourth perspective in the study of decision-making is that of decision-making as a problem-solving technique. In this approach the mechanics of decision-making are the focus of inquiry. Decision-making is studied as a technique of how to choose among alternative courses of action regardless of subject, purpose and objectives. This approach is inspired by the idea of the development of a "Decision-Making Machine" which could choose the "right" course of action on the basis of the data fed to it.<sup>80</sup>

Within this frame of reference there are studies directed toward the construction of a general theory on decision-making.<sup>81</sup> Some of these studies place more emphasis on an interdisciplinary approach,<sup>82</sup> while others pay more attention to specific questions.<sup>83</sup> Finally,

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<sup>79</sup>Gore, loc. cit., Harold D. Lasswell, The Decision Process: 7 Categories of Functional Analysis (College Park, Md.: Bureau of Governmental Research, University of Maryland, 1956); and J. L. McCamy, "Analysis of the Process of Decision-Making," Public Administration Review 7:41-48, 1947.

<sup>80</sup>Bross, op. cit., pp. 1-5 et passim.

<sup>81</sup>W. W. Abendroth, "The Research and Decision-Making Process," in Jesse Shera et al., Documentation in Action (New York: Reinhold, 1956), pp. 42-53; Bates, loc. cit.; C. F. Carter, G. P. Meredith, and G.L.S. Shackle, (eds.), Uncertainty and Business Decisions: A Symposium (Liverpool, England: Liverpool University Press, 1954); Peter F. Drucker, "Making Decisions," in P. F. Drucker, The Practice of Management (New York: Harper & Brothers, 1954), pp. 351-69; Edwards, loc. cit.; and Melvin L. Hurni, "Decision Making in the Age of Automation," Harvard Business Review, 33:49-58, 1955.

<sup>82</sup>Carter, loc. cit.; Edwards, loc. cit.

<sup>83</sup>Cofer, loc. cit.; Cohen, loc. cit.; Cartwright, loc. cit.; and Reid, loc. cit.

attention should also be directed to the great number of "practical guides," "checklists," etc., on decision-making.

5. Besides the above four categories, there are also a great number of studies devoted to the analysis of specific problems or specific categories of decisions. These studies attempt to break down the component elements of certain categories of decisions and to advance a specific theory covering the respective area, such as the decision to wage war,<sup>84</sup> on personnel,<sup>85</sup> on public policy and government,<sup>87</sup> on military decisions,<sup>88</sup> on business decisions,<sup>89</sup> etc.

#### Methodology of Current Studies on Decision-Making

A standard terminology or classification of the various methods of research which could be used for the classification of the current studies on decision-making, or any other similar subject, is not to be found in the

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<sup>84</sup>T. Abel, "The Element of Decision in the Pattern of War," American Sociological Review, 6:853-59, 1941.

<sup>85</sup>Neil W. Chamberlain, Management in Motion (New Haven: Yale University Press, 1950).

<sup>86</sup>Robert R. France, Union Decisions in Collective Bargaining (Princeton: Princeton University, Industrial Relations Section, 1955).

<sup>87</sup>Paul H. Appleby, Policy and Administration (Birmingham: University of Alabama Press, 1949); Gore, loc. cit.; Lasswell, loc. cit.

<sup>88</sup>William J. Harris, "Decision," Military Review, 36:33-42, April, 1956; Philip Lichtenberg and Morton Deutsch, "A Descriptive Review of Research on the Staff Process of Decision-Making," USAF Personnel Training Research Center Research Bulletin, 1955, No. AFPTRC-TR-54-129; and John E. Schremp, "Military Problem Solving," Military Review, 36:28-37, August, 1956.

<sup>89</sup>Carter and others, loc. cit.; George Katona, Psychological Analysis of Economic Behavior (New York: McGraw-Hill, 1951); John McDonald, "How Businessmen Make Decisions," Fortune, 52:84-87, August, 1955; and Meyer and Kuh, loc. cit.



literature of social research.<sup>90</sup> Moreover, most of the publications on decision-making offer little information about the methodological details. Consequently, the various categories presented below are rather arbitrary and overlapping; yet, they are essentially accurate in broad outline. The classification outline used here was developed largely on the basis of Foster's categorization, modified and adopted to the specific nature of decision-making literature.<sup>91</sup>

Basically, the readings on decision-making can be classified under the headings: (1) approaches; (2) methods of research; and (3) techniques of collecting data.

1. Methodological approaches. The following methodological approaches can be traced among the various readings on decision-making: (a) philosophical or theoretical,<sup>92</sup> Historical,<sup>93</sup> psychological,<sup>94</sup>

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<sup>90</sup>Carter V. Good, A. S. Barr and Douglas E. Scates, The Methodology of Educational Research (New York: Appleton-Century-Crofts, Inc., 1941), pp. 205-33, present a very good illustration of this problem.

<sup>91</sup>R. G. Foster, "Objective Methods of Sociological Research Generally Applicable to Child-Development Studies," Journal of Educational Sociology, 9:79-87, October, 1935.

<sup>92</sup>Kenneth J. Arrow, "Alternative Approaches to the Theory of Choice in Risk-Taking Situations," Econometrica, 19:404-37, 1951; Cartwright, loc. cit.; Edwards, loc. cit.; Gibson and McGarvey, loc. cit.; Coombs, loc. cit.; and Mortimer R. Kadish, Toward a Theory of Decision (Ph.D., Columbia University, 1950, in Microfilm Abstracts, 1950), X, 253-54.

<sup>93</sup>Abel, loc. cit.; Chamberlain, loc. cit.; Gore, loc. cit.; Durisch and Lowry, loc. cit..

<sup>94</sup>Brehm, loc. cit.; Cartwright, loc. cit.; Jerome S. Bruner, Jacqueline J. Goodnow, and George A. Austin, A Study of Thinking (New York: Wiley and Sons, 1956); Cofer, loc. cit.; and Cohen, loc. cit.

(d) sociological,<sup>95</sup> (e) practical or technical,<sup>96</sup> (f) statistical,<sup>97</sup> (g) interdisciplinary or combinations of the above.<sup>98</sup>

2. Research methods. Although most of the texts do not offer enough information about their methodology, basically the following research methods can be distinguished as (a) historical,<sup>99</sup> (b) survey,<sup>100</sup> (c) case,<sup>101</sup> (d) comparative,<sup>102</sup> (e) statistical,<sup>103</sup> (f) experimental,<sup>104</sup> (g) abstractive-symbolic.<sup>105</sup>

3. Techniques of collecting data: (a) literature reviews,<sup>106</sup> (b) interviews,<sup>107</sup> (c) questionnaires,<sup>108</sup> and

<sup>95</sup>Blau, loc. cit.; Festinger and others, loc. cit.; Lichtenberg, loc. cit.; McCamy, loc. cit.; Morton Deutsch and Harold B. Gerard, "A Study of Normative and Informational Social Influences Upon Individual Judgment," Journal of Abnormal and Social Psychology, 51:629-36, 1955.

<sup>96</sup>Bates, loc. cit., Bross, loc. cit.; Dale, loc. cit.; Drucker, loc. cit.; Dubin, loc. cit.; Harris, loc. cit.; Manley Howe Jones, Executive Decision Making (Homewood, Ill.: Richard D. Irwin, 1957).

<sup>97</sup>Bross, loc. cit.; Katona, loc. cit.; Livingston and Hertz, loc. cit.; and Meyer and Kuh, loc. cit.

<sup>98</sup>Carter, loc. cit.

<sup>99</sup>Abel, loc. cit.

<sup>100</sup>Carlson, loc. cit.; Drucker, loc. cit.; Dubin, loc. cit.; Johnson, loc. cit.

<sup>101</sup>Blau, loc. cit.; France, loc. cit.; Gore, loc. cit.; Chamberlain, loc. cit.; Durisch and Lowry, loc. cit.

<sup>102</sup>Blau, loc. cit.; Dale, loc. cit.

<sup>103</sup>Katona, loc. cit.; Livingston and Hertz, loc. cit.; Meyer and Kuh, loc. cit.

<sup>104</sup>Brehm, loc. cit.; Cartwright, loc. cit.; Cohen, loc. cit.; Coombs, loc. cit.

<sup>105</sup>Bates, loc. cit.; Bross, loc. cit.; Carter and others, loc. cit.; Gronbach and Gleser, loc. cit.; Kadish, loc. cit.

<sup>106</sup>Edwards, loc. cit.; Gibson and McGarvey, loc. cit.; Johnson, loc. cit.

<sup>107</sup>Katona, loc. cit.

<sup>108</sup>France, loc. cit.; Katz and Lazarsfeld, loc. cit.

(d) observations,<sup>109</sup>

#### IV. DECISION-MAKING AS A RESEARCH TOOL IN THE STUDY OF ADMINISTRATIVE ORGANIZATION

Although decision-making had always occupied an eminent position in organization literature. It was considered as a mechanistic approach to problem solving through the collection of information, assembly and scrutiny of factual data, the weighing of alternatives and forecasting consequences. Simon, however, in his pioneering work, Administrative Behavior, revolted against the traditional approach to organization study. He expressed his dissatisfaction with the so-called orthodox principles of organization, and stated his thesis on the proper study of organization as follows:

Administration is ordinarily discussed as the art of "getting things done." Emphasis is placed upon processes and methods for insuring incisive action. Principles are set forth for securing concerted action for groups of men. In all this discussion, however, not very much attention is paid to the choice which prefaces all action--to the determining of what is to be done rather than to the actual doing.<sup>110</sup>

Simon's thesis is that any significant factor in organization is the decision, "the choice which prefaces all action."<sup>111</sup>

Simon's thesis did not meet any noticeable dissent among the students of organization. On the contrary, it gained more and more attention following the inter-

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<sup>109</sup> Blau, loc. cit.; Brehm, loc. cit.; Cohen, loc. cit.; Coombs, loc. cit.; Drucker, loc. cit.; Dubin, loc. cit., Robert F. Bales, Interaction Process Analysis: A Method for the Study of Small Groups (Cambridge, Mass.: Addison-Wesley, 1950).

<sup>110</sup> Simon, Administrative Behavior, p. 1.

<sup>111</sup> Ibid.

disciplinary focus on decision-making study during the last decade. Although there is no agreement among organization scientists on Simon's methodological construct--that decision-making can be used as a replica of the organization and that its analysis can be substituted for the study of the organization as a whole--there is, nevertheless, a rather general agreement that decision-making really is a very important element in every organization and that it deserves particular attention and analysis.

But, as mentioned in the previous chapter, in spite of the fact that considerable attention has been given recently to the study of decision-making, little attention has been paid to the methodological problems involved and the construction of a methodological "edifice" for the inductive and empirical study of decision-making. The results of this uneven development between theoretical perspectives and methodological instruments are conspicuous in most of the "theories" on decision-making which, generally speaking, lack empirical validation and illustrative case materials.<sup>112</sup> Also, although Simon's proposal for the use of decision analysis as a methodological tool in organization research has received considerable attention among the students of administration, it has not yet been used or tested by any of them. Even in the writings of Simon and his disciples, there is not to be found a clear-cut "blueprint" of a methodological construct providing a continuous and detailed procedure of organization analysis starting from the collection of empirical data and ending in the formulation of a general theory on organization, based on decision analysis.<sup>113</sup>

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<sup>112</sup>For example, in seventy-four studies recorded in Paul Wasserman and Fred S. Silander, Decision-Making: An Annotated Bibliography (Ithaca, N.Y.: Cornell University, Graduate School of Business and Public Administration, 1958), pp. 1-17, under the chapter: "The Decision-Making Process--General and Theoretical Material," only twenty-one have some kind of empirical foundation. Moreover, most of these empirical studies are devoted to specific problems and questions, and only a few are directed toward the foundation of more general theoretical constructs.

<sup>113</sup>Cf. supra,

## Decision-Making as a Tool of Analysis

Four methods of organization analysis--partial, model, skeleton or basic, and unit--were presented in previous pages. How decision-making could be used instrumentally in each of these four methods of analysis will be discussed below.

Decision-making in partial analysis. It is obvious that the study of decision-making can be used in partial analysis where decision-making is studied as a part, a basic function, of the organization. This is the predominant approach in the majority of the current texts on organization and management, which consider decision-making as one of the basic organizational functions. This approach was placed on a wider and more advanced basis by Professor John M. Pfiffner, who described decision-making as one of the eight networks or grids of organization.

Another hypothesis, according to which decision-making may be a syndrome of other "basic organization networks, was presented by Professor Pfiffner. He expressed the opinion that decision-making may be not an autonomous and independent unit but a "syndrome" of other "basic" networks such as communication, power-authority network, functional contacts grid, etc., and he suggested the study of decision-making autonomy as one of the targets of the research which he conducted in the 600 Seminar.

Decision-making in model analysis. Decision-making could be used as an analogy model on the premise that behavior expressed in the area of decision-making could not but be analogous of manifested behavior in any and all the individual and collective (organizational) activities. In this case, while the observable facts would be reduced to those relevant to the decision-making process alone, the assumed analogy would help the researcher to develop insights and to draw conclusions about the organization in all its complexity.

Decision-making could be used also as a scale model in organization analysis. Such an approach would be based on the premise that the decision-making process is a miniature of the generic organizational process. It could be argued, in other words, that since (1) organizational behavior is "deciding" and "doing," and

(2) deciding predetermines doing, and (3) a few decisions "preface" a great number of actions, the decision-making process is in reality a condensation--a scale model--of the organization as a whole.

If the analogy or scale models of organization can be converted into symbolic ones. It is obvious that decision-making can be used in organization research as an abstract or symbolic model.

Decision-making in basic or skeleton analysis.

Since everything which has to be done in an organization must be decided first, it could be supported that decision-making is the basic network or the skeleton of the organization. With this premise the study of decision-making could be substituted for the study of "the basic elements of organization." Within this framework, decision-making is used (1) as a frame of reference,<sup>114</sup> and (2) as a focus of analysis.<sup>115</sup> The difference between these two approaches is that the first one excludes any empirical observation beyond decision-making, while the second also considers other observable facts related to the focal point of its interests, although it places decision-making in the center of its analysis.

Decision-making as a unit of analysis or more precisely as a molecule of organizational premises. This is Simon's thesis. He says:

Instead of taking decisions as basic unanalyzable units, we regard the process of human choice as a process of "drawing conclusions from premises." It is, therefore, the premise (and a large number of these are combined in every decision) rather than the whole decision that serves as the smallest unit of analysis.<sup>116</sup>

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<sup>114</sup>This term is used here with the context of a line of distinction on the basis of which data are evaluated as relevant or not to the particular objectives, specific problems or scope of a given research project. Cf. Egon Brunswik, The Conceptual Framework of Psychology (Chicago: University of Chicago Press, 1958); supra, pp. 12-13.

<sup>115</sup>Young, op. cit., pp. 95-100 passim and pp. 211-12; cf. supra, p. 34.

<sup>116</sup>Simon, Administrative Behavior, p. xii.

## CHAPTER III

### THE EMPIRICAL RESEARCH OF THIS STUDY

In the previous two chapters a review of the current trends in the study of organization and decision-making, as well as an outline of the perspectives of this study, was presented. As mentioned therein, the present study, responding to the need for a "new deal" in organization theory and research, was focused on the development of an outline of an empirical theory on policy, decision, and organization formulated inductively by using the novel methodological technique of decision analysis.

In this chapter an account of the development of the empirical research upon which this study was based, and an account of the methodology used for the analysis and interpretation of the data are presented.

#### I. THE RESEARCH PLAN

##### Research Perspectives and Problems

The following long-range perspectives were identified for this research:

1. To collect empirical data concerning policy-making and decision-making.
2. To attempt a theory of policy, decision, and organization based on these empirical data.
3. To explore various methodological approaches in studying organization complexity, particularly the use of decision-analysis as a research technique.
4. To develop a method (model) for organization analysis.
5. To outline a theory on organization.

## Delimitations of the Research

In outlining the research prospectus, the following problems were considered:

Orientation. The first consideration was the span of the observable area. How deep must the research be? In studying decision-making should the organizational process alone be analyzed or should the research go farther, searching for the psychological and social causes of administrative behavior? When studying decision-making, should consideration be given to the organization setting alone, or should attention also be directed to its environmental complexity?

Structure. The basic question here was one of determining whether the research should be structured or non-structured.<sup>1</sup> A structured research presupposes the development of hypotheses, the selection of definite research procedures, the development of research instruments, the creation of models, and a schedule of the consecutive research steps. This problem was related to the basic methodological character of the research. Should the methodology be basically inductive or deductive?

Data collection. Three questions were considered here:

1. What type of data-gathering instruments should be devised? The unstructured and structured questionnaires, both closed and open end were considered.<sup>2</sup>
2. Which methods of obtaining data would yield the best results--observation, interview or documentary research?

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<sup>1</sup>Supra, p. 13.

<sup>2</sup>Pauline V. Young, Scientific Social Surveys and Research (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1956), pp. 176-203. See the questionnaire which was finally adopted in Beatrice G. Markey and Nicholas G. Nicolaidis, Selected Policy-Decision Cases (Los Angeles: University of Southern California Bookstore, John W. Donner Publication No. 10, 1960), Appendix A.



3. What kind of sampling should be used? It was realized at the very beginning that the collection of "cases" without any further distinction of kind, size, and location of the organizations, as well as time and hierarchical levels where the decisions were made could lead to questionable findings in terms of validity, reliability and significance. In order for a general theory of organization to be constructed, the basic prerequisite should be that the collected data (the sample) be representative of the organization in its universal sense. This brought about the problem of predetermining the sample cases in terms of kinds of organizations and hierarchical levels. Another question taken into consideration was whether decision cases could be taken separately or in clusters, because many decisions are parts of a long chain of sequential decisions; and, consequently, their artificial isolation in the phase of case reporting could destroy the clue to their real meaning.

Data analysis. Collection of data in verbal form raised the problem of how to identify variables in a complex verbal text and how to treat them quantitatively. This, of course, is a problem in content analysis which is never too easily handled in social research. Basically, the problem was the identification of variables included in a complex verbal text, and their numerical presentation. Closely connected with the problem of content analysis was the problem of evaluation-classification. This problem can be summarized in the following three questions:

1. How can causality or identifiability among the variables be determined from the content analysis?<sup>3</sup>

2. How can qualitative variables be scored and presented in a quantitative form?<sup>4</sup>

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<sup>3</sup>Herbert A. Simon, Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting (New York: John Wiley and Sons, 1957), pp. 10-13.

<sup>4</sup>About content analysis consult: William J. Goode and Paul K. Hatt, Methods in Social Research (New York: McGraw-Hill Book Company, Inc., 1952), pp. 325-30; Bernard Berelson, Content Analysis in Communication Research (Glencoe, Ill.: The Free Press, 1952); Bernard Berelson and Patricia Salter, "Majority and Minority

3. How can the dimensions of organization behavior be defined and how can their correlations be presented?<sup>5</sup>

Statistical treatment. Many of the above problems could not be answered successfully without a pre-arrangement of data to be amenable to statistical manipulation. Statistical manipulation presupposes:

1. Quantitative (numerical) presentation of qualitative data.

2. A coding system for identification, classification and grouping of qualitative variables.

### Research Prospectus

After consideration of the above problems, it was decided that development of a research design should be guided by the following factors:

1. The early approach should be exploratory in nature in order that the major dimensions of the problems and the best methodological techniques might be identified.

2. Because of the exploratory nature of the research and in order that its originality and the empirical character be kept free from pre-conceived ideas on the subject, the non-structured form of research instruments was preferable.

Within this frame of reference the following plan for the 1958 Fall Semester was developed:

1. Review of the most important works in the current literature of organization and decision-making.

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Americans: An Analysis of Magazine Fiction," Public Opinion Quarterly, 10:168-90, Summer, 1946.

<sup>5</sup>About this problem consult: Goode and Hatt, op. cit., pp. 232-95; J. P. Guilford, Psychometric Methods (New York: McGraw-Hill Book Company, Inc., 1954), pp. 470-535; Paul F. Lazarsfeld and Morris Rosenberg (eds.), The Language of Social Research: A Reader in the Methodology of Social Research (Glencoe, Ill.: The Free Press, 1955), pp. 83-199.

2. Collection of fifteen decisions by each student member of the 600 Seminar. The form of a non-structured questionnaire was selected as the recording instrument.<sup>6</sup> Sampling limitations were not determined.

3. Analysis of a number of decisions during the seminar sessions in order that a workable method of content analysis might be developed.

4. Discussion in seminar sessions of the methodology and the implications for decision-making and organization theory of the decision cases reported by the students.

5. Development of a workable method (model) for organization analysis.

## II. COLLECTION OF THE DATA

### Process and Problems in the Collection of the Data

The account of the collection of the data can be divided chronologically into two parts. The first part covers the period from September, 1958, to January, 1959; the second part extended from February to June, 1959.

September 1958 to January 1959. As was stated previously, the research on decision-making, being exploratory in nature, started without any formalized structure. During that period, the members of the 600 Seminar were working toward four of the previously determined objectives. Development of the model for organizational analysis, the fifth objective, would, of course, come at a later stage in the research.

At the middle of that period when eighty decisions were gathered, the author attempted an exploratory and tentative content analysis of these decisions and the development of a frequency distribution. His report and the discussions which took place at ensuing seminar meetings disclosed the following characteristics of the data:

1. About 85 per cent of the decisions were made by city governments. Most of these were relevant to the

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<sup>6</sup>Markey and Nicolaidis, loc. cit.

council-manager level.

2. The text of the narrative account of the facts surrounding a decision was more or less brief and sketchy. These accounts disclosed very little about the "forces behind the scene," and provided no insights into the complexity of the decision-making process.

3. Lack of uniform terminology created semantic difficulties which inhibited statistical manipulation of the data. It became evident that the same term was used differently by different researchers; for example, the term "policy." It also became apparent that each decision told only a part of the story. If a variable was not found in a decision, this did not necessarily mean that it did not actually exist in the real case but simply that it was not reported by the researcher. In such a case the frequency distribution was representing more the "reported" variables and less the "actual" variables in the cases submitted.

As a result of these findings a committee was appointed to investigate the disclosed problems and to report to the Seminar its conclusions and recommendations for a more satisfactory approach to this problem. This committee which worked over a six-week period and considered systematically and deliberately each suggested proposal, recommended:

1. The non-structured and non-designed character of the research should be retained. Because of the exploratory nature of the research, it was more important for the researchers to have freedom of action to tell "the whole story" and the most salient facts without structural and methodological limitations.

2. The use of the fivefold form questionnaire should be continued.<sup>7</sup>

3. At the same time it seemed desirable to develop some standards for the research procedure in order to bring about greater accuracy, comprehensiveness, and uniformity, and also to facilitate the statistical manipulation of data. To this end, the committee prepared an "Auxiliary Guide for Researchers,"<sup>8</sup> designed to draw

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<sup>7</sup> Ibid.

<sup>8</sup> Ibid., Appendix C.

their attention to certain defects in gathering and reporting decision cases as disclosed by the tentative analysis of the first eighty decisions.

4. The sampling should be more representative. Data should be gathered from organizations other than the city-manager form of local government and from lower levels of the hierarchy.

A second tentative analysis was made in January, 1959, of the 134 decisions submitted. Although the original defects mentioned above were not completely eliminated, there was much improvement in the comprehensiveness of the cases.

The last months of the 1958-59 Fall Semester were also devoted to the development of a coding and data classification system for the content analysis and its quantitative presentation. Since the research was to continue and because of its inductive character, the system was devised so that variables could be added, eliminated, or re-classified without any serious disturbance of the basic coding structure.

February to June 1959. The second part of the research began with the same perspectives, methodological orientation, and frame of reference as the first part. The basic problem was how to retain the inductive approach while, at the same time, sharpen the preciseness and comprehensiveness of the data gathering. At the very beginning the students became aware of certain problems and defects in methodology disclosed during the previous semester.

In view of the fact that the decisions gathered during the first semester represented dominantly the top management levels, it was felt desirable to secure decisions at the middle and lower levels. This seemed necessary because one of the objectives was to test Appleby's hypothesis relative to the existence of a policy continuum, namely, that all levels participate in policy-making.

The objectives for the second semester's work were the same as for the first except that the quota was lowered to a minimum of ten decisions per student, in order to achieve greater comprehensiveness in the reporting of the data.

A committee was again selected to study the alternative solutions to the problem of how to obtain more preciseness and comprehensiveness in the data gathered. After a number of deliberate and fruitful discussions the committee made the following recommendations to the Seminar:

1. The unstructured form of questionnaire fitted better to the inductive approach of the research and its empirical character.
2. Instead of the fivefold questionnaire form, a simple narrative account sheet be used.
3. The use of an instruction sheet was prepared by this committee.<sup>9</sup> These instructions, according to the committee's opinion, were the basic elements which the researcher must take into consideration in gathering data on decision-making and were designed to be used in the following ways: (a) as a check list to guide the researchers in interviews and observations to ensure that they observed and recorded the most important factors; and (b) as a uniform method of reporting and recording decisions which, in turn, would facilitate the content analysis of the decisions and the statistical manipulation of the data.

This instruction sheet, presented in the Seminar and used tentatively in a number of decisions has proved workable and valuable.

Generally speaking, although the yield of the second semester was quantitatively lower than the yield of the first semester, it was, however, qualitatively superior and rectified to some extent the sampling defects of the work of the first semester and provided more data and deeper insights into the decision-making process.

Research yield. Table I presents the research yield of the two semesters.

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<sup>9</sup>Ibid., Appendix D.

TABLE I

DISTRIBUTION OF THE DECISION CASES COLLECTED BY THE MEMBERS  
OF THE 600 SEMINAR DURING THE ACADEMIC YEAR 1958-1959

Sampling Distribution	Fall Semester 1958	Spring Semester 1959	Total
<u>Organizations From Which Cases Were Gathered (A)</u>			
Governmental Organizations	201	93	294
Federal	16	6	22
State	6	3	9
County	43	6	49
City	117	48	165
School District	7	3	10
Armed Forces	12	27	39
Business Firms	11	17	28
Insurance-Banking	3	6	9
Construction-Engineering	3	2	5
Industrial Plant	3	5	8
Commercial Firm	1	4	5
Restaurant	1	--	1
Social Organizations	6	4	10
Boy or Girl Scout League	1	1	2
Student Organization	--	1	1
Businessmen Group	3	--	3
Reserve Officers	1	--	1
Women's Organization	--	1	1
American Legion	1	--	1
Community Chest	--	1	1
Total Number of Cases	<u>218</u>	<u>114</u>	<u>332</u>
<u>Hierarchical Levels* (B)</u>			
Political-Board Level	102	11	113
Top Management	84	28	112
Middle Management	21	54	75
Lower Management	9	56	65
Employee	2	24	26

\*Most of the reported decisions were crossing more than one hierarchical level. Therefore, the figures presented under element (B) do not correspond with the figures stated under element (A).

### III. THE ANALYSIS OF THE DATA

A total of 332 decision cases were selected for analysis. Of these cases, 100 have been digested and incorporated in a separate publication.<sup>10</sup> These cases are illustrative of the characteristic features of the collected data. Their analysis raised a threefold problem: (1) how to designate the unit for analysis; (2) how to secure the designated unit; and (3) how to classify these "discovered units" in a systematic array to provide the basis for the construction of a pyramid of inferences drawn from the particular to the general, from "single findings" to general theoretical conclusions.

#### Selection of the Proper Unit of Analysis

The conventional units of analysis. The complexity of the data with which the social sciences deal presents the problem of analysis of these complex entities into their single component parts. But the identification of these "fundamental particles" is the cornerstone of analysis in both natural and social sciences.<sup>11</sup> While in physics and chemistry there are definite units and standard terminology, this is not the case with the social sciences. In the social sciences, the following units of analysis are usually used:

1. The fact. Although almost all texts on social research emphasize that "science is built with facts,"<sup>12</sup> they avoid defining what the very term means.<sup>13</sup> The most appropriate definition, according to their

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<sup>10</sup> Ibid.

<sup>11</sup> Supra, pp. 34-36.

<sup>12</sup> Young, op. cit., p. 509.

<sup>13</sup> The following writings, for example, do not offer any definition of the word fact: Stuart Chase, The Proper Study of Mankind (revised edition; New York: Harper and Brothers, 1956); Carter V. Good, A. S. Barr, and Douglas E. Scates, The Methodology of Educational Research (New York: Appleton-Century-Crofts, Inc., 1941); J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1956); Harold A. Phelps, Contemporary Social Problems



content, seems to be that fact is "something that has really occurred or is the case; hence, a datum of experience, as distinguished from conclusions."<sup>14</sup>

2. The factor. Although the term is used very often in social research and a number of "factor theories" have already been advanced,<sup>15</sup> its precise definition has been omitted from most of the current texts.<sup>16</sup> The concept which seems to accommodate best the use of the term in psychology is that of the "fundamental particle of human personality and behavior." Factors stand for the real or inner causes of human behavior versus observable traits. As one writer observes:

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(third edition; New York: Prentice-Hall, Inc., 1957); and Young, loc. cit.

<sup>14</sup>C. T. Onions (ed.), The Oxford Universal Dictionary on Historical Principles (third edition; Oxford: The Clarendon Press, 1955), p. 667. About the "facts" in Social Research, consult also: Goode and Hatt, op. cit., pp. 7-17; Morris R. Cohen and Ernest Nagel, An Introduction to Logic and Scientific Method (New York: Harcourt Brace and Company, 1936), pp. 199, 201, 215-21, 391-92.

<sup>15</sup>Guilford, Fundamental Statistics, pp. 464-70; Guilford, Psychometric Methods, pp. 470-538; Goode and Hatt, op. cit., pp. 286-95.

<sup>16</sup>The term is generally used within two contexts. One is the mathematical; the other is that of everyday conversation. The mathematical context has two connotations. "In arithmetic and number theory factor is called any integral number by which a given number may be divided evenly (without remainder) . . . in algebra, the factors of an algebraic expression are expressions which when multiplied together produce the original expression." Funk and Wagnalls Standard Reference Encyclopedia (New York: Standard Reference Works Publishing Company, Inc., 1959), p. 3375.

In everyday speech, factor usually means (1) anything which makes or does something; (2) anything which is the cause of something; and (3) a part which is one of the basic components of something.

In spite of the great social and scientific usefulness of psychological tests it must be acknowledged that for the most part we have had very inadequate ideas as to what it is they actually measure. The plea is frequently offered in defense of tests that, by analogy, we do not know the whole truth about electricity and yet we do not question the right of the physicist or the engineer to measure it. Let us be ready to recognize that, although the full nature of electricity is not known, some of the real variables of electricity, such as potential, resistance, and inductance, have been isolated and laws of their interrelationships have been stated. The fundamental variables or dimensions of human ability and human personality in general are still well within the unexplored territory reserved for psychologists. To meet this situation, a statistical approach such as factor analysis is necessary.<sup>17</sup>

3. The dimension. This term is usually used to indicate the "resultant" of a group of factors or forces having a common direction or effect.<sup>18</sup>

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<sup>17</sup>Guilford, Psychometric Methods, p. 470. Factor as the "fundamental particle" of analysis has been used in a number of studies done in the University of Southern California. See A. L. Comrey, John M. Pfiffner, and H. P. Beem, Studies in Organizational Effectiveness, I. The U.S. Forest Survey (Los Angeles: University of Southern California, 1951); Robert C. Wilson and others, "A Factor-Analytic Study of Supervisory and Group Behavior," The Journal of Applied Psychology, 38:89-92, 1954.

<sup>18</sup>In psychology the term dimension has been employed for the conceptualization of the attributes of sensation, James Drever, A Dictionary of Psychology (Baltimore: Penguin Books, Inc., 1958), p. 66. An attribute has been defined as "a fundamental aspect or characteristic of a sensation, with the vanishing of which the sensation vanishes; for example, all sensations must have quality, intensity, and duration, or better prominence" (*ibid.*, p. 22). There is not to be found a generally acceptable definition of dimension in social research. Goode and Hatt, loc. cit., state that "if the items of a scale constructed by the method of internal consistency are subject to factor analysis, the number of dimensions contained in the original list can be determined, as can the items making up each of the dimensions

4. The variable. A variable is called "any quantity or characteristic which may possess different numerical values or categories."<sup>19</sup> In organization research the term variable is often used in the context of a simple statement describing a certain recurring organizational phenomenon isolated from a complex cluster of interrelated data by means of empirical observation and data analysis. In this respect variables are usually classified as subdivisions of dimensions, factors, or premises.<sup>20</sup>

5. The premise. As stated in the previous chapter, the premise has been suggested by Simon as the proper unit of analysis.<sup>21</sup> Simon, however, does not assign any specific connotation to the term in his analysis, and, obviously, he uses it in the sense of previous proposition from which another follows as a conclusion or a set of propositions from which the conclusion is derived in a syllogism.<sup>22</sup>

The unit of analysis selected in this study.

Tables II and III illustrate the method of analysis of the data and the form and kind of the "units" into which each case was broken down. These "units" or "statements" were generally defined as findings or variables. In the

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or principal components." In the study of Comrey, Pfliffner and Beem, loc. cit., factors and dimensions were used as synonymous terms. In another study using the factor-analytic approach was stated that "the current form (of questionnaire) involves the use of groups of homogeneous items or 'dimensions' developed for the purpose of assessing characteristics of organization hypothesized to have some relationship to their effective operation." Wilson and others, op. cit., p. 89. In this study factors were conceptualized as components or parts of dimensions.

<sup>19</sup>Young, op. cit., p. 254.

<sup>20</sup>For example, Wilson and others, op. cit., pp. 89-90, used this approach.

<sup>21</sup>Supra, p. 50.

<sup>22</sup>Onions, loc. cit.

TABLE II

THE METHODS USED BY MEMBERS OF THE 600 SEMINAR FOR THE COLLECTION  
AND ANALYSIS OF THE EMPIRICAL DATA OF THE POLICY-DECISION STUDY

Stages of Research Development	Description of Method Used	Research Instruments	Auxiliary Aids
Empirical Observation	<p><u>Personal Interview and Participant Observation</u></p> <p>The student-interviewers collected data on certain organizational decisions by either participant observations in the organizations where they were employed or interviews of people involved in decision cases.</p>	Personal Notes	<p>Auxiliary Guide to the Researchers*</p> <p>Instructions in Gathering and Reporting Decisions for Organizational Analysis**</p>
Description of Observed Facts	<p><u>Case Report: A Written Narrative Account of the Observed Facts in a Decision Case</u></p> <p>The student-interviewers presented a written report on their findings using the questionnaire form.+</p>	Policy-Decision Data Sheet+	
Analysis of the Data	<p><u>Content Analysis of the Reported Cases</u></p> <p>Each case was analyzed in its component parts, i.e., the "findings" or "premises."</p>	Data Analysis Sheet++	None

NOTE: An illustration of these methods, as applied to Case #223, is presented in Table III.

\*Beatrice G. Markey and Nicholas G. Nicolaidis, Selected Policy-Decision Cases (Los Angeles: University of Southern California Bookstore, John W. Donner Publication No. 10, 1960), Appendix C.

\*\*Ibid., Appendix D.

+Ibid., Appendix A.

++Ibid., Appendix E.

TABLE III

THE METHODS USED BY MEMBERS OF THE 600 SEMINAR FOR THE COLLECTION AND ANALYSIS OF THE EMPIRICAL DATA OF THE POLICY-DECISION STUDY, BASED ON CASE #223

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EMPIRICAL OBSERVATION STAGE: The student-interviewer observed the conflict over the distribution of the keys of the crime laboratory of a police department which had just moved into new quarters.

DESCRIPTION OF OBSERVED FACTS STAGE--Policy-Decision Data Sheet:

"When the police department in a city of 60,000 people moved into new quarters, the problem of the key distribution became a very controversial issue. The traffic and patrol captains complained that they did not have a key to the crime laboratory or store room and could not obtain replacement units for the intoximeters. The special service captain, who held the keys, stated that traffic units would have to draw these replacements during the daytime when the rooms were unlocked, because he did not want anyone not working in special services to have a key.

"The traffic captain was offended by this remark; and the chief, in an attempt to solve the problem, suggested that one key be provided for the patrol watch commander to permit entry at any time. The special service captain objected to this on the grounds that it would permit the sergeant or desk officer to go through the rooms any time they wanted to. The special service captain then conceded that he would permit a key to be left in the detective bureau so that entry could be made by 'someone who knows what they are doing and can be trusted.' From this point the staff meeting became a clash of personalities between the special service captain on one side and the traffic and patrol captains on the other, with the detective bureau captain remaining discretely quiet. The chief adjourned the meeting soon after this outburst, advising all present to regain their composure."

CONTENT ANALYSIS STAGE: The above decision was analyzed as follows: (1) Organization men strive always for more power, authority and prestige; (2) in this struggle they are not satisfied with "collective" or "questionable" power, but they try to hold a power monopoly; (3) In order to substantiate this "power monopoly" and secure it from their rivals, they want to be distinguished by "holding firmly in their hands the symbols of authority," etc.

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seminar discussions, however, it pointed out that both these terms were considered unsatisfactory to epitomize the essence of these "statements." The term, finding, was considered rather vague and very general; while the term, variable, was viewed as limited, because these "statements" included actually more than one variable. For example, finding 3 in Table III included five variables: (1) power, (2) power monopoly, (3) rivals, (4) status distinction, and (5) symbols of authority. Therefore, the best definition of these "statements" seems to fit within the context of a "cluster of variables having a common direction or dimension" or a premise in the sense that these "statements" are not mere "snap-shots" of facts or happenings, but they go further converting these happenings into premises of syllogisms.<sup>23</sup>

In terms of the analysis presented in the previous paragraph, it could be said that the gathered decision cases were analyzed into premises. Each premise contained one or more variables as, for example, premise number 3 in the case mentioned above contained five variables. All five variables were merged into the dimension: struggle for power. Factors (causes) in this struggle for power were (1) personality characteristics, (2) functional contacts, and (3) open case for power reapportionment.

#### Analysis, Codification, and Classification of the Data

After the text of each decision case was broken down into a number of "findings" or "premises," these premises were recorded into an analysis sheet.<sup>24</sup> No further effort was made to analyze these statements or premises into factors, dimensions and variables, so these statements remained the basic unanalyzable units of this research.

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<sup>23</sup>Syllogism in logic means "An argument expressed or claimed to be expressed in the form of two propositions called the premises, containing a common or middle term, with a third proposition called the conclusion, resulting necessarily from the other two." Ibid., p. 2108.

<sup>24</sup>Markey and Nicolaidis, op. cit., Appendix B.

After this "analysis," each statement was codified. Table IV illustrates the basic steps of the codification process. A four digit number was assigned to each "finding" or "statement" on the basis illustrated in this table. Five classes were set forth according to the basic questions investigated in this study,<sup>25</sup> and then six sub-classes were devised for each class on the basis of a logical scheme explained in Table IV. Divisions of the above sub-classes were inductively formulated on the basis of the findings provided by the analysis of the decision cases. This codification method provided simultaneous classification of the data into classes, sub-classes and sub-class categories and the development of a panel of findings or premises.

#### Tabulation of the Data

The panel of findings or premises developed above was used as the basic framework for the tabulation of the data. For each recurring statement the number of its appearance in the collected cases was indicated in a frequency distribution. Table V presents a sample of this frequency distribution. This frequency distribution was the final tabulation record of the analysis of data.

### IV. FORMULATION OF GENERALIZATIONS

#### FROM THE RAW DATA

As is evident from the selected cases,<sup>26</sup> the decision cases reported in the seminar did not present a thorough and complete record of all the factors involved in every case, but they were more or less "abstracts" of the most important events, according to the interviewer's opinion, which occurred in the course of the development of a decision. This resulted in a wide variation in the data reported. Certain researchers, for example, emphasized the environmental factors, while others paid more attention to personalities or formal rules.

Since the research was an unstructured one, such a variability in the reported data was anticipated; and,

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<sup>25</sup>Supra, p. 2.

<sup>26</sup>Markey and Nicolaidis, loc. cit.

TABLE IV

THE CODING AND CLASSIFICATION SYSTEMS USED IN THE POLICY-DECISION  
STUDY CONDUCTED BY THE MEMBERS OF THE 600 SEMINAR

Steps	Method Description				
Structure of the Basic Codification Scheme	<p>Variables (Statement Code Number) → <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 2px 5px;">2</td> <td style="padding: 2px 5px;">6</td> <td style="padding: 2px 5px;">1</td> <td style="padding: 2px 5px;">3</td> </tr> </table></p> <p>A. Indicates class number → (points to digit 2)</p> <p>B. Indicates sub-class number → (points to digit 6)</p> <p>C. Indicates sub-class category → (points to digit 1)</p> <p>D. Indicates variable's serial number within the sub-class category → (points to digit 3)</p>	2	6	1	3
2	6	1	3		
-----					
Structure of the Skeleton Classification Scheme	<p><u>Classes</u></p> <ol style="list-style-type: none"> <li>1. Policy and Policy-Making</li> <li>2. Decision and Decision-Making</li> <li>3. Policy-Decision Interrelations</li> <li>4. Decision-Making as an Instrumental Device in Organization Research</li> <li>5. Organization Theory</li> </ol> <p><u>Sub-Classes</u></p> <ol style="list-style-type: none"> <li>1. What? (description and definition variables)</li> <li>2. Who? (personality and behavior variables)</li> <li>3. When? (time variables)</li> <li>4. Where? (locus variables)</li> <li>5. How? (process and method variables)</li> <li>6. Why? (causation and interrelation among variables)</li> </ol>				
-----					
Codification and Classification of Individual Variables	<p><u>Sub-Class Categories</u></p> <p>These were formulated inductively by grouping together related variables within sub-classes</p> <p><u>Classification of the Variables Within the Sub-Class Categories</u></p> <p>The fourth digit of the code number was used to identify variables classified within the same sub-class category</p>				



TABLE V

A SAMPLE OF THE FREQUENCY DISTRIBUTION OF THE VARIABLES IDENTIFIED  
IN THE POLICY-DECISION STUDY CONDUCTED  
BY MEMBERS OF THE 600 SEMINAR

Code Number				Description	Fre- quency
A	B	C	D		
1	0	0	0	<u>POLICY AND POLICY-MAKING</u>	
1	1	0	0	Operational Definitions	
1	1	1	0	Policy as a commanding directive	
1	1	1	1	Policy is a general directive given by the superior to his subordinates with the purpose of guiding, restricting and controlling their activities	131
1	1	1	2	Policy is a regulation set forth for the purpose of restricting and controlling individual behavior within the group	57
-----					
2	0	0	0	<u>DECISION AND DECISION-MAKING</u>	
-----					
2	4	0	0	Locus of Decision	
-----					
2	4	2	0	Decisions at the Middle Management Level	
2	4	2	1	Middle management decisions are employee oriented	18
2	4	2	2	Middle management decisions are influenced by top management desires	49
2	4	2	3	At the middle management level, information moving upward is screened on the basis of top management desires	26

consequently, it was obvious that any quantification based on these diversified data could possibly lead into false conclusions. This research, being exploratory in nature, did not intend either to present a fact-finding statement in a precise and quantitative form or to formulate a quantitative theory meeting the requirements of the scientific method. Its main intention was to present its findings in hypothesis form offering the basis for more advance, precise and elaborate studies designed to test the validity of the statements made in the following pages.

The limitations mentioned above should not minimize, however, the value of this research. The content analysis of 332 decisions, gathered by researchers of superior intellectual ability with extensive experience and theoretical knowledge, covered a variety of organizations from combat units to vegetable stands and all the hierarchical levels from the President of the United States to the tree-trimming operator. These, together with the discussions in the Seminar meetings and the proceedings of the committees, provided an extremely rich and varied source of empirical data from which very useful conclusions were drawn.

The method of drawing these conclusions was basically guided by the classification scheme and the frequency distribution, as well as the rules of logic and common sense. Although such a method may be questioned for its orthodoxy, it does not lack support among social researchers. As one of them observes:

. . . Unqualified and relentless generalization of a given scientific theory might seem upon first thought to be exceedingly dangerous and unwarranted, since it assumes the application of the theory to a wide range of facts extending far beyond . . . the sole empirical confirmation of the theory. But instead of this being a dangerous procedure, it is the most safe one . . . if one restricts a theory solely to the evidence for which it is confirmed, then obviously the theory will seem to be true without qualification. But to extend it to all relevant evidence is to find as quickly as possible the point if any at which the theory is inadequate.<sup>27</sup>

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<sup>27</sup>F.S.C. Northrop, The Logic of the Sciences and the Humanities (New York: Meridian Books, Inc., 1959), pp. 28-29.

## V. THE PRESENTATION OF THE FINDINGS

The generalizations formulated from the data as explained above are presented in the next pages. This presentation follows the classification scheme mentioned above, and it is based on the panel of findings or premises extracted from the analysis of the decision cases.

A number of cases are cited in the footnotes for each statement. These cases were selected from among those which provided empirical evidence upon which the statement was based.<sup>28</sup> The cases cited were the most illustrative rather than the most significant. The citation of cases is merely indicative and auxiliary. If in one statement there are cited more cases than in another, this has no significance; and it does not mean that the first statement has a greater validity than the second.

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<sup>28</sup>The texts of these cases are recorded in Markey and Nicolaidis, loc. cit.

## CHAPTER IV

### POLICY AND POLICY-MAKING

This chapter deals with the research findings in the area of policy and policy-making and it is divided into the following parts: (1) definition of policy; (2) essence of policy and policy-making; (3) the policy-maker; (4) policy development; and (5) the locus of policy.

In order to draw the attention of the researchers to the above points, the following question was included in the questionnaire used for the collection of the data:

What was the relation of the decision or non-decision to policy? Did it make, implement, or interpret policy? If so, what level or category of policy was involved?

#### I. POLICY: AN OPERATIONAL DEFINITION

As mentioned in Chapter I, one of the research objectives was the development of operational definitions of the basic terms used in this study.<sup>1</sup> From the answers

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<sup>1</sup>Supra, pp. 10-13; the notion of operational definitions is based on "the demand that the concepts or terms used in the description of experience be framed in terms of operations which can be unequivocally performed." Carl G. Hempel, Fundamentals of Concept Formation in Empirical Science (Chicago: University of Chicago Press, 1958), p. 41, or stated another way, operational definitions are manifestations of science's struggle "for objectivity in the sense that its statements are to be capable of public test with the results that do not vary essentially with the tester" ibid., p. 43. For a more detailed discussion of the subject, consult ibid., pp. 39-50. James D. Thompson, "On Building an Administrative Science," Administrative Science Quarterly, 1:105, June, 1956, states also, "Science requires that concepts be defined by a series of operations which permit the sensory perception and identification of the phenomena referred to by those concepts; operational definitions

given to the above question on policy it became apparent that the researchers had difficulty in defining (1) the term policy,<sup>2</sup> and (2) in identifying the specific policy applicable to specific decisions.<sup>3</sup> This difficulty was intensified by the fact that in many decisions the relevant policy was not clear. The research also disclosed that a number of decisions were made without any policy consideration.<sup>4</sup>

#### Lack of a Generally Acceptable Definition

It became evident from the content analysis of the cases and the various concepts of policy expressed by the case reporters or their interviewees that the term "policy" lacked a precise and generally acceptable definition among administrators and scholars, as well. Some of the researchers were using the term in a very broad sense, and others in a narrow one. In a great number of cases policy seemed to be merely synonymous with the intention "to operate the organization as efficiently and economically as possible,"<sup>5</sup> "to have a good organization,"<sup>6</sup> or to accomplish the mission of the organization.<sup>7</sup> Such a broad definition of policy encompasses almost everything and becomes meaningless. In other cases the term was used in so narrow a sense that policy-making was considered synonymous with decision-making in the sense that every decision on a new problem for which neither policy pre-existed nor other similar decision made was considered as policy precedent for similar cases in the future.<sup>8</sup> This idea was based on the premise that any decision on a new subject, develops policy "landmarks" which have to

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make possible independent repetition of observations by scientists in many places and at many times."

<sup>2</sup>Cases #81,98,114,222,244.

<sup>3</sup>Cases #42,65,104,114,166,233,237,241.

<sup>4</sup>Cases #42,223,251,257. <sup>5</sup>Cases #42,162,244,245.

<sup>6</sup>Cases #42,166,244,245. <sup>7</sup>Cases #36,249,267,270.

<sup>8</sup>Cases #56,103,113,222,235.

be taken as mandatory guides for future decisions on similar cases. This was found to be an administrative version of the judicial concept of stare decisis which has firm roots in administrative practice.

In conclusion the problem of delimiting the definition of policy was that of drawing two lines of distinction. One, separating policy from the mission and objectives of the organization and another, distinguishing policy-making and decision-making.

In order to cope with the problem of developing and framing an operational definition of policy, the first step was the development of an inventory of concepts and definitions of policy recorded in the collected decision cases.

#### The Variety of Definitions Gathered

This inventory mentioned above disclosed that the term policy in the daily language of administration has the following variety of meanings and definitions which are not mutually exclusive:

1. A general directive given by the superior to his subordinates for the purpose of guiding, restricting, and controlling their daily activities, including decision-making.<sup>9</sup>

2. A standard procedure or practice applicable to the daily operations of the organization.<sup>10</sup>

3. A rule set forth either by upper levels of the hierarchy or the operating levels themselves and used as a framework for their present and future decisions and actions.<sup>11</sup>

4. A criterion or set of criteria used in selecting alternative courses of action including decision-making.<sup>12</sup>

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<sup>9</sup>Cases #17,22,23,56,162,225. <sup>10</sup>Cases #7,11,92,227.

<sup>11</sup>Cases #48,91,92,107,162,177,222.

<sup>12</sup>Cases #17,22,38,91,103,107,177,237,240,245.

5. A judgment on, or a solution given to a previous case which is considered as an obligatory pattern for future decisions in similar cases.<sup>13</sup>

6. An ethical consideration (value) which is used as a screening criterion in selecting alternative courses of action.<sup>14</sup>

7. A regulation set forth for the purpose of restricting and controlling individual behavior within the group, such as personnel by-laws,<sup>15</sup> housing regulations,<sup>16</sup> or zoning ordinances.<sup>17</sup>

8. A formal or informal agreement on conflicting interests, personalities, values, perspectives, and expectations attempting to compromise the conflicting forces within the organization on the basis of an acceptable and stable status quo or modus operandi and to channel their efforts toward the objective of a smooth operation of the organization.<sup>18</sup>

9. A program objective such as street sweeping,<sup>19</sup> personnel training,<sup>20</sup> or crime prevention.<sup>21</sup>

10. Organization goals such as profit-making,<sup>22</sup> promoting favorable public relations,<sup>23</sup> or maintaining harmony.<sup>24</sup>

11. The accomplishment of the mission or the ideals (perspectives) of the organization.<sup>25</sup>

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<sup>13</sup>Cases #56,103,113,222,235,237.

<sup>14</sup>Cases #22,23,105,107,220.      <sup>15</sup>Cases #98,105,162.

<sup>16</sup>Cases #38,54,307.      <sup>17</sup>Cases #8,30.

<sup>18</sup>Cases #8,44,222,223,229,230.

<sup>19</sup>Cases #2,48.      <sup>20</sup>Case #42.      <sup>21</sup>Case #56.

<sup>22</sup>Cases #92,113,244.      <sup>23</sup>Cases #38,99,220,241.

<sup>24</sup>Cases #8,38,223,230.

<sup>25</sup>Cases #2,225,241,247.

Synthesis of the Above Concepts:  
Common Characteristics of these  
Definitions

The concepts on policy stated above possess certain common characteristic elements which can be used for the unification of all these definitions under one common term. These are:

The form of policy. Policy as conceptualized in the above statements seems to form a guiding rule or norm for present or future decisions and actions, providing a framework or pattern solutions on anticipated future problems.

The character of policy. Policy seems to be also a manifestation or clarification of specific organization goals, objectives, values or ideals as well as normative patterns of organizational action demanded for their accomplishment.

The terminal objectives of policy. The terminal objectives of policy appear to be stability, consistency, uniformity and continuity in the operations of the organization; a desire for a smooth development of future organizational activities on the basis of present anticipations in order that inconsistencies and conflicts be avoided.

An Operational Definition of Policy

On the basis of the above common characteristic elements of the various definitions of policy gathered throughout the field of administration, the following synthesis can be presented as an operational definition of policy:

Policy is a rule for action, manifesting or clarifying specific organization goals, objectives, values, or ideals and often prescribing the obligatory or most desirable ways and means for their accomplishment. Such a rule for action established for the purpose of framing, guiding, or directing organizational activities, including decision-making, intends to provide relative stability, consistency, uniformity, and continuity in the operations of the organization.



### Comments on the Above Definition

The definition stated above deviates from the traditional concepts of policy recorded in the current readings on organization. The following definitions are indicative of this deviation.

1. Policy is "a general direction as to how to go about thinking when decisions are to be made that ought to be valid for the company as a whole."<sup>26</sup>

2. Policy is "a broad guide as to how the objectives of a business are to be achieved."<sup>27</sup>

3. Policy is "any general rule that has been laid down in an organization to limit the discretion of subordinates."<sup>28</sup>

The differences between these concepts and the operational definition stated above are:

1. The operational definition does not include (1) the element of policy origination (i.e., top management), (2) the direction of policy formulation (i.e., from top to bottom), (3) the concept of the limitation of the discretion of subordinates, and (4) the notion that policy is a rule directing organizational activities "to be valid for the company as a whole."

2. The operational definition, on the other hand, includes certain elements which are not mentioned in the above definitions: (1) the character of the policy rules,

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<sup>26</sup>Paul Pigors and Faith Pigors, "Let's Talk Policy," Personnel, 7:5-14, July, 1950.

<sup>27</sup>Max D. Richards and William A. Nielander (eds.), Readings in Management (Cincinnati: South-Western Publishing Co., 1958), p. 281.

<sup>28</sup>Herbert A. Simon, Administrative Behavior (New York: The Macmillan Company, 1958), p. 59, identifies this use of the term in the organization vernacular. He classifies also policy rules into: (1) ethical premises, (2) broad non-ethical rules laid down by top management, (3) other minor rules, and (4) "practices."

i.e., manifestation of specific organization goals, objectives, etc., and (2) the ultimate objectives of policy rules, i.e., consistency, continuity, and uniformity.

The above differences will be amplified, analyzed, and critically examined in the remainder of this chapter.

## II. THE ESSENCE OF POLICY AND POLICY-MAKING

As stated above, the traditional concept of policy and policy-making emphasizes the commanding and deductive character of policy. Policy is viewed as a rule of action set up by the higher levels of the hierarchy for the purpose of framing and directing the actions of subordinates. In other words, it is conceptualized as a limitation on the discretion of subordinates and as an integral part of the chain of command and the delegation of authority. In this respect policy is considered as the foundation-stone of decision-making, the prerequisite of every administrative decision.

Although the data collected through this research project do not tend to discredit the above concept, nevertheless, they seem to offer a more penetrating view of the policy-making process which discloses that the above concept is a rather abstract generalization of only one side of the policy-making process.

### The Research Findings

The research findings disclosed that policy is a multi-dimensional, polymorphous<sup>29</sup> entity of the organizational world. According to these findings, policy shows a pluralistic manifestation in its (1) purpose, (2) character, (3) form, and (4) development.

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<sup>29</sup>This term is used in the context of something that is "1. Having, assuming, or occurring in many or various forms; multiform . . . 2. Having many varieties . . . 3. Assuming various forms successively . . . 4. Having several definitely marked metamorphoses . . ." C. T. Onions (ed.), The Oxford Universal Dictionary on Historical Principles (third edition; Oxford: The Clarendon Press, 1955), p. 1540.

Policy as a multi-purpose organization device. The research findings disclosed that policy in an organizational setting serves the following purposes:

1. A guide or norm for action set forth either by the upper levels of the hierarchy<sup>30</sup> or the operating levels themselves.<sup>31</sup> The usefulness of guides and norms in any endeavor is obvious.<sup>32</sup>

2. A control device used either by the supervisory personnel to control the discretion of subordinates<sup>33</sup> or by the working group itself for the purpose of keeping the individual activities within the "standards" or "norms" set up by the group.<sup>34</sup>

3. A simplification method of acting and doing in an organizational setting. The axiomatic principle of any organizational action is that "thoughtful deliberation must be given to all relevant facts in order that the best action to be taken that ought to be valid for the organization as a whole." Although this axiom is logically unquestionable, its implementation in the daily problems of organization is not so simple. In most cases, action must be taken or decision must be made in a relatively short period of time and on the basis of incomplete information or hasty deliberation.<sup>35</sup> In all these cases the issue of simplification of the problem is the most important. To this end policy as a simplification method is used in various ways such as (1) a scale of authoritative or agreeable evaluation of ethical values,<sup>36</sup> (2) a list of priorities of organizational objectives to be accomplished,<sup>37</sup> (3) a list of preferences of the ways

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<sup>30</sup>Cases #17,36,152,227.

<sup>31</sup>Cases #48,222,225,237.

<sup>32</sup>Robert Merton and others, Reader in Bureaucracy (Glencoe, Ill.: The Free Press, 1952), pp. 27-33; Peter M. Blau, Bureaucracy in Modern Society (New York: Random House, 1956), pp. 27-36, discuss normative models.

<sup>33</sup>Cases #11,17,162,278.

<sup>34</sup>Cases #221,225,265,281,308.

<sup>35</sup>Cases #17,22,91,114.

<sup>36</sup>Cases #23,38,99,177,220.

<sup>37</sup>Cases #4,56,114,162,225,230.

and means to be used for the accomplishment of these objectives,<sup>38</sup> and (4) a stock of pattern solutions.<sup>39</sup>

4. A compass for organizational navigation. Organization men making numerous daily decisions and actions and jumping from problem to problem may lose their orientation and deviate from their direction line unless they have certain "policy lighthouses" helping them to maintain consistency, continuity and uniformity among these numerous daily actions and decisions.<sup>40</sup>

5. A regulating device of the communication system. In spite of the fact that current organization theory emphasizes the principle of unity of command, in actuality, however, formal and informal arrangements provide usually a multi-line communication network or networks.<sup>41</sup> These developments permit a degree of flexibility in adjusting communication patterns to changing conditions. However, this multi-line communication structure could result in serious overlappings, duplications, and conflicts unless some kind of regulation were provided. In all these cases policy rules are used to determine from whom one has to ask or demand certain action. This regulation can be either for a certain time period or a certain subject-matter.<sup>42</sup>

6. An adjusting device. Traditional organization theory has emphasized the dichotomy of formal and informal organization as two separate entities. The research findings disclosed, however, that such a distinction is not clear in the daily operations of the organization. Actually, there is only one organization including both formal and informal elements. There are two overlapping levels of organization actions, decisions, or policy rules: the formal and the informal. This distinction does not lack importance. The first represents the static elements of organization. The latter includes the dynamic elements. Both are vital and necessary to

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<sup>38</sup>Cases #2,11,19,103,235,241.

<sup>39</sup>Cases #19,103,191,278,305.

<sup>40</sup>Cases #30,103,107,177,270.

<sup>41</sup>Cases #7,17,98,163,261.

<sup>42</sup>Cases #7,98,103,246,261.

maintain the cohesiveness of an organization in accomplishing its mission and terminal objectives (formal rules) and simultaneously flexible enough to adjust to changing conditions (informal rules). There is a continuous "metabolism" of formal and informal elements in an organizational structure. In this case policy serves as a regulating device of this "metabolic process."<sup>43</sup>

The above multi-purpose use of policy explains why the operating levels themselves tend to develop policy rules.<sup>44</sup> If policy were only a supervisory directive restricting the discretion of subordinates, the logical conclusion would be that the operating levels should tend to discredit and violate policy rules. Indeed, this was proved true in a number of cases where policy was used as a commanding directive.<sup>45</sup> On the other hand, however, it became evident that although the operating people dislike and violate policy as a commanding directive, they realize the usefulness of policy rules in the remaining areas; and they tend to develop their own policy rules in the form of "practices," policy interpretations, group norms, etc.<sup>46</sup>

Policy's dual character: command and agreement. As mentioned above, the traditional concept tends to emphasize the authority element in policy-making. Policy is considered as a directive given to subordinates by their superiors in an attempt to articulate their actions and decisions with the general objectives of the organization and secure a maximum output with a minimum input. As will be pointed out later on, one of the most characteristic elements of the administrative process is its compromising character. Administrators sail on a rough sea of conflicting interests, personalities, and values where compromise seems to be the most usual and effective method of "muddling through."<sup>47</sup> In this phase of administration,

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<sup>43</sup>Cases #44, 98, 162, 220, 270.

<sup>44</sup>Cases #48, 222, 225, 233, 235, 240, 268, 281, 304.

<sup>45</sup>Cases #7, 11, 23, 56, 162.

<sup>46</sup>Cases #48, 91, 222, 225, 240, 265.

<sup>47</sup>Penetrating insights into the compromising or "political" character of administration are found in Charles E. Lindblom, "The Science of 'Muddling Through,'" Public Administration Review, 19:81-86, Spring, 1959;

policy-making seems to be more a method of compromise and agreement than a method of rational articulation of means and objectives, or maximization of the organizational output.<sup>48</sup> In a number of cases, policy development was conditioned by an eager desire to eliminate conflicts and secure "smooth operation of the organization." In these cases policy was considered identical with the recognition of a status quo or formulation of a modus operandi tending to stabilize the conflicting forces within the organization and its environment and to reach a point of agreement and acceptance.<sup>49</sup>

The analysis of the decision cases disclosed that two opposing forces work together in the area of organization policy. One, based on the desire of the upper levels of the hierarchy to impose their "own will" upon their subordinates, tends to confine the behavior of subordinates within the standards and desires of their superiors.<sup>50</sup> The other, originated from the desire of the lower levels of hierarchy for independence, and fosters counter forces tending to violate or adjust and modify superior's policy rules<sup>51</sup> and replace them by norms more desirable or acceptable to the subordinates.<sup>52</sup> This policy source

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and Eugene E. Jennings, "You Can Spot Office Politicians," Nation's Business, 47:42+, December, 1959.

According to Albert Lepawsky, Administration: The Art and Science of Organization and Management (New York: Alfred A. Knopf, 1955), p. 202, the term "muddling through" was invented by Ramsay Muir, Peers and Bureaucrats (London: Constable Company, 1910). It must be emphasized that the strong desire for compromise and agreement mentioned above should not be misinterpreted as leading to stalemates or deadlocks in cases that such a common agreement is not achieved or is feasible only at an obvious expense of the very interests of the organization or the administrator's perception about the best solution. The dynamic character of administration is illustrated in the frequent use of the sword in cutting such Gordian knots; cases #7,11,81,107,177,267,278.

<sup>48</sup>Cases #44,223,225,230,278.

<sup>49</sup>Cases #44,65,185,223,229,230.

<sup>50</sup>Cases #7,185,278,265,309.

<sup>51</sup>Cases #7,36,98,225,278,285.

<sup>52</sup>Cases #163,225,240,265,278,285.

has been observed particularly in cases where the policy originated in the top clashes with the standards of behavior of the subordinates,<sup>53</sup> their values,<sup>54</sup> their estimate of the situation,<sup>55</sup> and their evaluation of priorities.<sup>56</sup>

Besides this conflict over the "proper action," another characteristic of organizational life is the division of authority among an organization's officialdom. Every individual within the organization has authority to make policies or decisions in the name of the organization but only on certain pre-determined subject-matter. For example, in case #240, the branch manager of a finance company had authority to grant loans up to \$1,000, the assistant manager to make collateral appraisals, the cashier to accept or not to accept a personal check, etc. This partial and specialized authority, which is a part of the total authority network of the organization, is defined here as "jurisdiction." From the findings of the research, it could be said that in the daily organizational vernacular, authority means jurisdiction, or, in other words, ability of the administrator to make decisions and generally to act in the name of the organization on certain specifically pre-determined subject matter or in a delimited discretion area. In the daily operations of the organization, the jurisdiction of each administrator is subject to two limitations. First is the control by his superior by virtue of the delegation of authority principle;<sup>57</sup> and second is the competition of other people within the organization who either think that the subject falls within their own jurisdiction or try to expand their own jurisdiction at the others' expense.<sup>58</sup> In both cases the administrators confront a problem of uncertainty regarding the final effectiveness of their decisions. They do not know if their decisions would survive their superiors' review or the opposition of their fellow administrators.

The conflict between hierarchical echelons over

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<sup>53</sup>Cases #7,220,225,265,266.

<sup>54</sup>Cases #23,220,221,225,278.

<sup>55</sup>Cases #4,91,92,225,268,285.

<sup>56</sup>Cases #4,17,81,107. <sup>57</sup>Cases #11,23,38,81,266.

<sup>58</sup>Cases #152,163,223,267.

the "proper action"<sup>59</sup> or the "proper jurisdiction," to carry out such action<sup>60</sup> result in an endless chain of conflicts, tensions, and tug-of-war games within the organization unless there was recognition of an acceptable status quo or modus operandi tending to pacify the conflicting forces and keep them in proper balance.<sup>61</sup>

The form of policy. The traditional concept about the form of policy is very sharp. Policy is visualized as a set of rules arranged in a hierarchical and logical order providing a complete arsenal of reference premises which can answer any question of preference and evaluation in decision-making. According to this concept, the founders of an organization state its mission. For example, the founders of a city government determine its mission to be the offer of fundamental services to its citizens, or the founders of a bank determine the mission of such an organization to be the offer of bank services to its customers and produce profits for its stockholders. This mission can be analyzed into a number of certain definite objectives; for example, the objectives of a city government could be law enforcement, fire prevention, recreation, sewage disposal, etc. The objectives of a bank could be investments, collections, commercial transactions, etc. Each objective can be analyzed into certain sub-objectives or goals. For example, the goals of a bank in the sector of investments could be to accept deposits from its customers, to invest the collected funds into stocks and bonds, to keep accurate records of these transactions, to make the best profits from these business activities, etc. The organization chart pre-determines which department or official should be responsible for the accomplishment of these goals. Thus, the organization manual of a bank might state that the Commercial Accounts Department should collect deposits from the customers; the Investment Department should buy stocks and bonds; the Accounting Department keeps the records of all these transactions, etc. It is clear from the above analysis that all of these objectives form a hierarchical continuum of goals and objectives, corresponding to the hierarchical

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<sup>59</sup> Cases #4,22,267,270,311.

<sup>60</sup> Cases #11,48,81,98,223.

<sup>61</sup> Cases #65,163,185,220,230.



pyramid of organization. Within the frame of such a hierarchical conceptualization of the organizational structure the conventional approach of policy developed its construct of a unified policy pyramid deductively formulated. According to this school of thought, policy means, "what, how, when, and -by-whom-should be done for-the maximum-accomplishment-of-the-organizational-objectives." The process of such a determination is purely deductive. The Board of Directors states the general policy of what, how, and when each department must perform in order that the general objectives of the organization be accomplished. Each department head states similar policy rules for each section, and so on. This hierarchical formation of policy rules does not leave room for contradictions and ambiguities under normal circumstances, because any contradiction between policy rules on one level can be solved by reference to the policy rules of the higher level, and so on.

Although the above picture of policy is definitely valid as a normative model or as an educational tool for simplified descriptions, it does not seem to be supported by empirical evidence. The research findings disclosed that in reality policy rules do not present such a harmonious and unified structure, but they tend to form loose clusters or galaxies of policy rules. The following characteristic elements of policy morphology were found:

1. Pluralism. In a number of cases it was found that more than one policy rule covered the area of a certain subject.<sup>62</sup> In these cases the operating people had an implied discretion to select, according to their own judgment or norms, which, from the many co-existing policy rules, fitted best, and in the final analysis their selectivity was the most important factor which determined the really effective policy of the organization at a given moment.<sup>63</sup>

In a number of cases it was disclosed also that the organization had an inventory of policies which were not all effective and applicable at a given time. Some of these policies were in use and others "only for the

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<sup>62</sup>Cases #17,222,241,255,270.

<sup>63</sup>Cases #19,222,241,255,270.

book."<sup>64</sup> It can be said that at any given time each organization has an inventory of active and inactive policies. The importance of this finding lies in the fact that the operating people often have a wide discretion to select a policy which is convenient for the immediate purpose even though it may have been inactive over a long period of time.<sup>65</sup> This policy potential lies in the ability of the operating people to activate inactive policy or vice versa.

2. Generality. As a rule policy directives are general, incomplete and sometimes ambiguous. This leaves enough freedom to the operating levels to shape the "final policy" and consequently to have the last word in the policy formulation.<sup>66</sup>

3. Abstractness. Policy rules are mostly formulated on a prediction basis.<sup>67</sup> Future problems are anticipated, and model solutions are presented on either a mandatory or an optional basis. Since prediction cannot be made on a complete and accurate knowledge of future events, policy rules are stated in a rather abstract manner and deal more with ranges of situations than with concrete ones. This abstractness, of course, leaves enough discretion to the line people to interpret policy and adjust it to the specific condition of their daily problems.

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<sup>64</sup>Cases #23,225,304,307,310.

<sup>65</sup>Cases #48,113,255,266,304; Lepawsky, op. cit., p. 164, describes vividly the power potential of the operating people because of this policy pluralism which was disclosed in France in 1932, when the civil service unions "fought a government sponsored salary reduction by . . . (threatening) to enforce all the regulations on the law books and thus paralyze French society"; Andrew Gunder Frank, "Goal Ambiguity and Conflicting Standards: An Approach to the Study of Organization," Human Organization, 17:8-13, Winter, 1958-59.

<sup>66</sup>Cases #38,48,113,222,270,311,314.

<sup>67</sup>Even in cases where policy is formulated in order to cope with certain present problems the underlying premise is that the same policy must be used for the same or similar problems which anticipated to emerge in the future. Cf. Cases #38,222,233,257,300,311,316; Lepawsky, op. cit., pp. 60-61.

4. Intermediateness. As stated above the conventional concept on policy views a pyramid of policy rules arranged in a hierarchical continuum which serves a dual purpose: (1) it maintains a continuous stream of policy directives flowing from top to bottom which frames and guides the decisions and actions of the lower echelons toward specific and limited objectives in a manner that secures their actions and decisions "to be valid for the organization as a whole,"<sup>68</sup> and (2) it provides also a ladder of consecutive questions by means of which solutions to specific and particular problems are sought in accordance with the general objectives of the organization. Although this conceptualization scheme is definitely useful as a normative model, it is not supported with empirical evidence. Indeed, in a number of cases it was revealed that the distance between specific problems of concrete action and general objectives of the organization is very often so long and complicated that a thorough consideration of all the possible ramifications of action and their consequences and a complete factual analysis might clash with the time and information limitations under which an administrator usually decides.<sup>69</sup> Under these circumstances, policy rules are developed as intermediate rules between the objectives of the organization and the decisions and actions of the operating levels.<sup>70</sup> These policy rules shorten the distance between specific actions and general organizational objectives and reduce the number of factual and value considerations to a lesser number, simplifying, in the final analysis, the task of operating levels. Although logically and theoretically these rules provide a connecting link between general organizational objectives and daily actions and, as such, belong to a unified pyramid of organizational directives, the research findings disclosed that in reality policy rules stand mostly as intermediate and independent guides. This happens because:

- a. The operating levels disassociate gradually from the general objectives of the organization, since their daily decisions and actions are bound more and more to these intermediate guides.<sup>71</sup>

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<sup>68</sup> Supra, p. 75. <sup>69</sup> Cases #17, 114, 227, 236, 255, 272, 316.

<sup>70</sup> Cases #17, 38, 222, 223, 237, 278, 314.

<sup>71</sup> Cases #38, 56, 175, 220, 223, 278, 300, 304.

- b. As stated previously and as will be analyzed in more detail in the next pages, policy rules are subject to a multitude of influences which do not follow a unified conception of what constitutes a "proper" accomplishment of the general objectives of an organization.<sup>72</sup> Then, policy rules in reality do not form a unified continuum, but they stand more or less as independent and intermediate guides directing the activities of particular officials or departments.<sup>73</sup> This disassociation between policy rules and general objectives of the organization and the intermediate character of the latter became evident from the answers given to the question number five of the questionnaire, in comparison with question number three of the same questionnaire.<sup>74</sup> Question number five asked:

What was the effect of the decision or non-decision in accomplishing organization goals?

While the researchers and their interviewees were able to identify whether or not the decision was in accordance with the existing policies, they were not able in many cases to evaluate whether or not these policies promoted the organization objectives or the compliance to these policies accomplished these objectives.<sup>75</sup>

### III. THE POLICY-MAKER

#### Various Concepts of the Term

No answer can be given to the question who is the policy-maker unless an agreement is reached about the term "policy." If the definition that policy is "any

<sup>72</sup>Cases #99,220,225,309.

<sup>73</sup>James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, 1958), p. 42; John M. Pfiffner and Frank P. Sherwood, Administrative Organization (New York: Prentice-Hall, Inc., 1960), p. 389.

<sup>74</sup>Supra, p. 70. <sup>75</sup>Cases #19,107,166,278,308.

rule of action applicable to present and future organizational activities" is accepted, all the levels of the hierarchy, including that of the journeyman, make policy in the sense that they develop rules with the purpose of guiding their activities in a consistent and uniform way.<sup>76</sup> If the more limited definition that policy is relevant only to the objective of making decision "to be valid for the company as a whole" is adopted, in such a case policy-making is more ascribed to the higher levels of the hierarchy which have the authority to do so.<sup>77</sup>

Closely connected with the problem of a varying definition of policy is the question of clarification of what is meant by the term "policy-maker." This term could be used with three possible connotations:

1. To indicate who has formal authority according to the organization manuals to make policy decisions.
2. To indicate who said the final word in the policy-making process; in other words, whose will, either formally or informally, was the sine qua non of the policy made.
3. To indicate and encompass the total network of all the forces within the organization and its environment which contributed to the development of the policy guiding the activities of the organization at a given time.

### The Approach in this Research

The approach of this research project was that of the third alternative. Its main objective was to identify, describe, and evaluate in terms of influence and importance all the forces within the organization and its environment which influence policy development.

### The Research Findings

The pluralism of the policy-making process. The picture of policy as a one-man or one-level product does not seem to depict the reality of the policy-making

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<sup>76</sup>Cases #48, 222, 237, 285, 310.

<sup>77</sup>Cases #2, 17, 105, 318.

process. Actually, policy-making is not one-dimensional but is a multi-dimensional process. Its real character includes:

1. Deductive elements in the sense that rules set up by the upper levels of the hierarchy frame and restrict the actions of the lower levels of the hierarchy, including policy-making and decision-making.<sup>78</sup>

2. Inductive elements in the sense that information, ideas, pressures coming from the lower levels influence policy-making in the upper levels.<sup>79</sup>

3. Circular or reciprocal elements in the sense that its finality depends on three factors: (a) the acceptance by the lower levels of the hierarchy which are in charge of its implementation;<sup>80</sup> (b) the ability of the upper levels of the hierarchy to control effectively its enforcement;<sup>81</sup> and (c) the environmental conditions at the time of its implementation.<sup>82</sup>

The policy-maker. At a given moment a body of "rules," "norms," or "practices" exist in any organization which govern the decisions and actions of the members of the organization. Who made these policy rules? It is evident from the analysis in the previous pages and the broad definition of the policy-maker adopted in this study that no one person, group, or echelon can be marked as the exclusive policy-maker. Policy-making in an organizational setting is the "resultant" of many contributing and converging forces. In this broad policy-making network, the following three centers can be distinguished:

1. The upper hierarchical echelons. This policy-making center on which the orthodox school concentrated its attention has been amplified in the current literature. The contribution of the upper echelons to policy formation was found to occur in a triple way: (a) by

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<sup>78</sup>Cases #7, 11, 98, 162, 278.

<sup>79</sup>Cases #17, 222, 227, 304, 309.

<sup>80</sup>Cases #223, 225, 229, 285, 307, 309, 310.

<sup>81</sup>Cases #98, 225, 265, 307, 310.

<sup>82</sup>Cases #38, 99, 220, 225, 257, 309.

direct enactment of policy rules;<sup>83</sup> (b) through ordinary decisions-making;<sup>84</sup> (c) through formal and informal influence over the subordinates. The importance and the implications of the first method are obvious. The research findings disclosed, however, that the second and third methods do not lack importance. Formal structure and hierarchical order provide a position of superiority for the upper echelons which enables them not only to enact policy rules directly, but to influence their subordinates strongly in the development of policy rules originated in the lower hierarchical levels.<sup>85</sup> In this point the research findings revealed misinterpretations and sometimes exaggerations about the group role in policy-making and decision-making, which can be found in the readings of many sociologists and groupists. As stated in a previous chapter,<sup>86</sup> the central tendency in these works is to repudiate the importance of the hierarchy as a stimulus for effective action and to emphasize the significance of group norms and processes. As will be analyzed in a later chapter, group norms and interactions play an important role in all phases of organizational life including policy-making and decision-making. Nevertheless, hierarchical structures of formal organization play also important roles and exercise a reciprocal influence, either directly or reversely, on group norms and interactions.<sup>87</sup>

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<sup>83</sup>Cases #2,99,230,265,273.

<sup>84</sup>Cases #17,98,103,308,313.

<sup>85</sup>Cases #98,221,304,313. One member of the seminar questioned the vertical distinction between policy and decision. She stated that any decision of the upper levels is viewed by the lower levels as policy directive in the sense that it is interpreted as revealing the "boss will." According to this concept, policy-making is not a static and discrete process but a continuous one shaped from moment to moment by the decisions and other communication schemes used by the superior levels. The top executive, for example, makes everyday decisions. These decisions are received by the department heads as policy directives. The department heads, on the basis of the above policy directives, make a number of decisions which are considered by their section chiefs as policy directives, etc.

<sup>86</sup>Supra, pp. 7,35.

<sup>87</sup>Infra, pp. 256-57.

## 2. The middle and lower hierarchical echelons.

As mentioned previously, the policy which is originated on the top and the policy which finally is applied by the operating levels are not always identical. As a rule, operating levels enjoy a considerable degree of freedom to shape the final form of policy rules initiated by the upper levels.

Besides the freedom of determining the final context of policy rules originated by the upper hierarchical echelons, middle and lower hierarchical levels influence also the upper levels in their policy-making functions through consultation,<sup>88</sup> control of information,<sup>89</sup> staff work,<sup>90</sup> pressure manipulation,<sup>91</sup> etc.

Finally, operating levels develop their own policy rules either to supplement policy vacuums left by the upper levels,<sup>92</sup> or to replace, if they can, policy rules enacted by the upper levels by new rules more desirable to the lower levels.<sup>93</sup>

## 3. The organizational environment. The organizational environment, and particularly the organization clientele, is a storage of forces which exercise noteworthy influences in shaping organization's policies. These influences are substantiated either by direct interactions between pressure groups and policy-making echelons, or by indirect action through the hierarchical ladder.<sup>94</sup>

### Policy-Making Network

The analysis presented above indicated that there is a network of policy-makers, who, together, contribute to the formation of the organizational policy rules which are effective at a given time. Top management, middle management, lower management, journeymen, and clientele

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<sup>88</sup> Cases #227,285,318.

<sup>89</sup> Cases #65,225,246,272,309.

<sup>90</sup> Cases #2,11,91,92.

<sup>91</sup> Cases #105,261,308,309.

<sup>92</sup> Cases #48,113,221,300.

<sup>93</sup> Cases #23,98,225,240,265.

<sup>94</sup> Cases #8,38,44,104,220,225.



participate in the policy-making process. This does not mean, however, that each partner has an equal share in policy formulation. Their contributions vary in both kind and degree. In the intra-organization interactions, the higher the level of the hierarchy the more general and abstract the policy rules initiated.<sup>95</sup> In the organization-environment interactions on policy matters, the stronger the position of the pressing group in the community, or the fate of the organization, the greater its influence in policy formulation.<sup>96</sup>

Generally speaking, the policy-making network is roughly identical with the power-authority network and the hierarchical structure of the organization.<sup>97</sup>

#### IV. POLICY DEVELOPMENT

##### The Conventional Concept

As mentioned above, the conventional concept views policy as "a general rule of action promulgated by top management or the board of directors. It is at once specific and flexible; it sets goals but leaves some leeway for subordinates to choose between alternatives in attaining objectives."<sup>98</sup> According to this concept, policy development has three definite characteristic features:

1. Level of formation: Top Management.
2. Phase of management: Planning.
3. Time: Before the need for action.

##### The Research Findings

Level of policy development. As mentioned in the previous pages, the research findings disclosed that

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<sup>95</sup>Cases #99,107,318.

<sup>96</sup>Cases #38,44,99,107,221,314.

<sup>97</sup>Cases #99,221,240,308,309,318.

<sup>98</sup>John M. Pfiffner, Organization: The Science of Hierarchy (Los Angeles: University of Southern California, n.d.), p. 112. (Mimeographed)

policy is formulated throughout the hierarchy; and all levels, including that of journeyman, participate in policy formulation.

Phases of the administrative process where policy is initiated. According to the conventional approach, policy is initiated only in the planning phase of administration. Particularly, the school of thought which views policy as a control device and a part of the delegation of authority structure is dominated by the idea that policy is developed when the superior wants to limit or control the discretion of his subordinates. As mentioned previously, the findings of the research revealed a broader definition and a multiple use of policy. Policy is developed in the following phases of administration:

1. The planning process. By the planning process is meant that phase of administration which deals with anticipation of forthcoming problems and the development of plans (pattern solutions) to cope with these problems. Such a policy can be initiated either by the managerial levels<sup>99</sup> or the operating levels themselves.<sup>100</sup>

2. The regulatory-equilibrium process. By such is meant that phase of administration which is devoted to the maintenance of a status quo or the development of a modus operandi within the organization and its environment. In these cases, policy seems to be a formula which tries to reconcile conflicting interests and to develop a workable rule which is characterized by a desire for maximum acceptance with minimum dissent. As noted previously, every organization contains static and dynamic elements.<sup>101</sup> Static elements such as the hierarchical structure, the formal policy rules, etc., provide a kind of cohesiveness and centripetal force which keep organizations on a rigid direction line. Dynamic elements, on the other hand, such as personal leadership, individual initiative, and informal groups, provide clusters of forces which are both centrifugal and sensitive to what the formal elements

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<sup>99</sup>Cases #4,11,30,45,107,318.

<sup>100</sup>Cases #113,222,227,285.

<sup>101</sup>Supra, pp.78-9; cf. also Pfiffner, Organization, p. 119.

seem to ignore or neglect. The interrelationships between formal and informal elements are either supplementary<sup>102</sup> or competitive.<sup>103</sup> In the first case, it is obvious that both contribute to a healthy and effective organization. In the latter case, however, conflict is not necessarily an undesirable element, which must be eliminated at any expense. Conflict sometimes provides a means of checks and balances to keep the organization healthy,<sup>104</sup> a stimulus for consideration and thoughtful deliberation of important issues,<sup>105</sup> or a warning for adjustment or modification of obsolete or ineffective practices.<sup>106</sup> However, in order for conflict to be a constructive element, it must be under constant organizational control.<sup>107</sup> When conflict blows up to a non-controlled size and becomes detrimental for the effectiveness of the organization, the need for policy as a regulating device arises.<sup>108</sup> In all of these cases policy, as an agreement either freely accepted by the conflicting parties<sup>109</sup> or authoritatively imposed by their superiors,<sup>110</sup> provides a necessary modus operandi.

3. Social or equalization phase of administration. Organizations dealing with human beings and working in a social setting are conditioned in their operations by certain values which seem to be universal and which are always considered seriously in the human mind. Such values are equality, justice, fair treatment of human

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<sup>102</sup>Cases #222,240,268,310.

<sup>103</sup>Cases #23,98,265,304.

<sup>104</sup>Cases #17,105,220,268,311; Barry Feiden, "As You Were Saying--Conflict on the Management Team," Personnel Journal, 38:424-25,435, April, 1960; Harlan Cleveland, "Dinosaurs and Personal Freedom," Saturday Review, 42:13, February 28, 1959; William H. Whyte, Jr., The Organization Man (Garden City, N.Y.: Doubleday Anchor, Inc., 1956), p. 32.

<sup>105</sup>Cases #17,104,280,309,311.

<sup>106</sup>Cases #7,104,220. <sup>107</sup>Cases #223,261,267.

<sup>108</sup>Cases #45,98,223,267.

<sup>109</sup>Cases #30,229.

<sup>110</sup>Cases #8,11,17,223.

beings, etc. In a number of cases it was disclosed that even in organizations where the only objective was profit-making, the idea of equal and just treatment, either of the employees or the clients, took precedence over the consideration of the most rational accomplishment of the organizational profit-making objectives.<sup>111</sup> This explains the important role of stare decisis in organization decision-making and the eager desire of all levels of the hierarchy to develop policy rules which serve the purpose of showing administration's ethical foundation on justice and fair treatment of human beings.<sup>112</sup> For similar reasons, policy development is also initiated and conditioned by tradition and imitation. A decision based on an old tradition or practice which is in wide use in the organization's environment seems to be more acceptable, less controversial, and more capable of fulfilling the requirements of equal and just treatment than a new solution.<sup>113</sup>

4. Problem-solving phase of administration. In spite of the most scrupulous and detailed planning to cope with forthcoming needs, a flow of problems, i.e., non-anticipated questions on decisions and actions, are a common phenomenon in every administrative organization.<sup>114</sup> This problem-solving phase of administration is an important one which very often discloses policy vacuums and the need for enactment of new policy rules or modification of old ones.<sup>115</sup>

## V. LOCUS OF POLICY

As pointed out in a page, the answer to this question depends upon the definition which is given to the term policy. If policy is considered only a rule of action set forth for the purpose of limiting and controlling delegated authority, the locus of policy is on

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<sup>111</sup>Cases #230,309,313.

<sup>112</sup>Cases #8,230,309,313.

<sup>113</sup>Cases #278,279,308.

<sup>114</sup>Cases #54,223,272.

<sup>115</sup>Cases #17,237,272,314,319.

the top. If, however, policy is given the broader definition which the research findings suggest, policy rules are developed at all levels of the hierarchy. Sometimes, also, the original source of policy seems to be outside the organization. This occurs when policy is developed as a result either of outside pressures<sup>116</sup> or imitations of solutions given to the same problem by other organizations.<sup>117</sup>

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<sup>116</sup>Cases #8, 99, 225, 230, 280, 314.

<sup>117</sup>Cases #250, 285.

## CHAPTER V

### DECISION AND DECISION-MAKING

This chapter, dealing with decision and decision-making, is divided into five parts, corresponding to the following questions:

1. What is an organizational decision and, more specifically, how can an organizational decision be operationally defined?

2. What are the essence and character of organizational decision-making?

3. How is an organizational decision developed? That is, is there a definite procedural pattern, or not? In other words, what are the dynamics of organizational decision-making and how do they affect and how are they reflected in the procedural pattern?

4. Who can be identified as an organization decision-maker and how can he be defined?

5. Where does the locus, or loci, of organizational decision lie?

#### I. ORGANIZATIONAL DECISION:

##### AN OPERATIONAL DEFINITION

In contrast with the definition of policy, the term decision did not present serious semantic problems for the researchers. They were able to identify and describe the components of a decision. However, certain marginal cases revealed that the term needed a more precise delimitation by drawing a line of distinction between: (1) individual decisions and organizational decisions, and (2) decisions and actions.

#### Individual Decisions and Organizational Decisions

Individual decisions. In a number of cases it

became evident that an organizational decision is very often a secondary one in the sense that it is the product of psychic actions and esoteric intra-actions previously developed in the inner world of the people who participate in the decision-making process.<sup>1</sup> The problem with this type of decisions--located in the inner sanctum of the human psyche--is that they are not opened to the researcher's observation and analysis.

#### Research problems on individual decisions.

Because of the difficulty in studying individual decisions, as mentioned in the previous chapter, two questions arose:

1. What should be the span of the research area? Should the research embrace both individual and organizational decisions or should it be confined to the study and analysis of only organizational decisions? As mentioned in the previous chapter, the second alternative was preferred.<sup>2</sup>

2. Since the research was to be confined to the study of organizational decisions, what is the meaning of the term?

Organizational decisions. Although a precise definition of the term "organizational decision" was not developed, nevertheless, from the discussion in the 600 Seminar and the fact-finding of the research, this term is used in the sense that:

Organizational Decisions are decisions made by individuals or groups belonging to the organization and acting under their own organizational capacity and jurisdiction which are justified on the grounds of interests and advancement of the organization.<sup>3</sup>

#### Decisions and Actions

Some cases revealed the need, for semantic purposes, to draw a line of distinction between decision and

<sup>1</sup>Cases #221,225,250,257,318,319,323. <sup>2</sup>Supra, p. 50.

<sup>3</sup>This does not necessarily mean that they really advance the interest of the organization; on the contrary, they might finally be harmful.

action. For example, a bank teller has an obligation to accept deposits made by the customers of the bank. Taking the money or the check given by a customer, he makes an action--acceptance of the deposit--in the name of the bank, but he does not make a decision. A decision arises when (1) the organization official has more than one alternative course of action, and (2) the official has or assumes discretionary authority to select more than one of the possible or permissible alternative courses of action.<sup>4</sup> A third feature of organizational decision is that none of these alternative courses of action present indisputable preponderance over the others. Indeed, a number of cases disclosed that certain "decisions" did not present any problem for their makers because the proper solution was so clearly predetermined by virtue of the fact that only one alternative was feasible, or clearly superior to the others.<sup>5</sup> These cases are in name "decisions" but in fact they might be classified as "actions."

#### Operational Definition of Organizational Decision

The following definition is presented as a synthesis of the common operational elements of an organizational decision; based on the analysis made above:

Organizational or administrative decision is a solution given to an organizational problem by an individual or a group belonging to the organization and acting in the name of the organization, which problem has (1) more than one alternative solution,<sup>6</sup> and

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<sup>4</sup>Cases #44,56,105,114,177,250,272,316.

<sup>5</sup>Cases #226,242,268,284.

<sup>6</sup>Every case, of course, has at least two alternatives: to do or not to do. So, in cases where one alternative seems to exist, the decision-maker has, theoretically, two alternatives: to make a decision by choosing the only alternative action or to do nothing. However, when one alternative is possible and the decision-maker has no discretionary authority to choose it or not, his choice, from an organizational point of view, should be classified as an action and not a decision.



(2) none of which is mandatory for the decision-maker.<sup>7</sup> In other words, the decision-maker has, or assumes, discretion to select either of the alternatives.<sup>8</sup>

## II. ESSENCE AND CHARACTER OF ORGANIZATIONAL DECISION-MAKING

### A Critical Appraisal of the "Rational" and "Normative" Theories on Decision-Making

The concept of rational man; the model of homo economicus. No concept in the area of administration has been so closely related to the idea of rationality as the concept of decision-making.

The central idea of the rationality concept is that human behavior, prefaced by a chain of decisions, is purposive. Human beings attempt to accomplish certain goals by using a number of available means. Since, as a rule, the available means are scarce, the problem of human action is a problem of finding the best means-ends combination, i.e., the one which accomplishes the maximum satisfaction of needs with a minimum disposal of scarce means. This is the concept of the so-called economic principle, which is identical with the concept of rationality. Rationality has been considered as the administrative version of the economic principle.

The economic principle--a product of abstract economic thought--is formulated around two central ideas: the idea of unlimited needs (ends) and the idea of scarce or limited means. Economics has been defined as the

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<sup>7</sup>The element of compulsion stated here is not limited to the formal rules alone. He might be free to act or not, or to select either one of the existing alternatives, but because of informal rules, pressures, group norms, etc., he actually does not make a decision by his own but he simply carries out a predetermined course of action.

<sup>8</sup>Cases #48, 114, 222, 240, 241, 278, 316.

study of satisfaction of human needs with scarce means.<sup>9</sup> The scarcity of means has been used as the central criterion in the distinction between economic and non-economic behavior. For example, the human need for breath is considered as a non-economic one, because the means for its satisfaction--air--is in abundance, while the need for food is classified as economic, because of the scarcity of available means for its satisfaction.

Since human behavior is always directed toward purposive action, the means-ends consciousness of the economic man was assumed to be the generic property of any acting man in any field. Then, the concept of the economically rational man became the universal model of rational man, and the model of Homo Economicus became the prototype of all the versions of rational man. As Simon describes this prototype:

. . . The economists attribute to economic man a preposterously omniscient rationality. Economic man has a complete and consistent system of preferences that allows him always to choose among the alternatives open to him; he is always completely aware of what these alternatives are; there are no limits on the complexity of the computations he can perform in order to determine which alternatives are best; probability calculations are neither frightening nor mysterious to him.<sup>10</sup>

The Weberian model of a rational organization man. Organization theory borrowed the idea of Homo Economicus and advanced its own model of organization man, the normative model which is seen in Weber's description of the ideal bureaucrat. He is like his economic prototype, a man sine ira et studio,<sup>11</sup> whose sole task is to achieve a maximum accomplishment of the organization goals with

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<sup>9</sup>Fred Rogers Fairchild, Edgar Stevenson Furniss and Norman Sydney Buck, Elementary Economics (fourth edition; New York: The Macmillan Company, 1946), I, 7-8.

<sup>10</sup>Herbert A. Simon, Administrative Behavior (New York: The Macmillan Co., 1958), p. xxii.

<sup>11</sup>Robert K. Merton and others, Reader in Bureaucracy (Glencoe, Ill.: The Free Press, 1952), p. 27.

a minimum sacrifice of the scarce organization resources (means). He has no other personal interests except the inducement of a fixed salary, and he is not subject to any kind of influences other than the directives of his superiors.<sup>12</sup>

The real social man. Classical economic theory and classical organization theory, both based on the same model of rational man, were shaken during the last half of the twentieth century by the findings of social sciences, namely, anthropology, biology, psychology, and sociology. The old Latin proverb de gustibus non est disputandum found verification in modern science. Human beings were revealed to be both rational and irrational. Biology and genetics suggested the study of chromosomes instead of the means-ends analysis for the detection of the foundations of human behavior. Psychology and particularly Freudian psychoanalysis went deeper on man's inner sanctum, the unconscious and infant sexuality. Anthropology stressed the idea that man is more cultural than rational, influenced by his environmental setting more than anything else. Sociology, finally, offered new interpretations of human behavior based on group dynamics and social patterns of human activity.<sup>13</sup>

The reconciliation of social and rational models of man in organization theory. Under this enormous challenge of the foundations of the theory of rational man, organization scientists attempted a drastic revision of their postulates and the development of a theory of organization man integrating the Weberian model with the recent findings of social sciences. In spite of the great number of publications on this subject, the ideas scattered throughout their texts reflect basically two central thoughts. These are:

1. The human mind has definite computational limitations which inhibit him in achieving the omniscient rationality of the economic man.<sup>14</sup>

2. Human behavior, subject to a multitude of

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<sup>12</sup> Ibid., pp. 18-27.

<sup>13</sup> Cf. supra, pp. 16-20.

<sup>14</sup> Simon, op. cit., pp. 40-41.

biological, psychological, social, and cultural influences deviates from the model of the rational man. The empirical counterpart of the rational man seems to be an amalgamation of both rational and irrational elements.<sup>15</sup>

The "rationalization" of organization man. Organization theory, in an attempt to reconcile its beloved model of rational man with the empirical analysis of the modern social man, developed a twofold perspective as follows:

1. The computational limitations of the human mind can be overcome by using mechanical and organizational tools. Electronic computers, staff work, consultation, check lists, practical guides, etc., have been suggested and have been used extensively in order to supplement the computational deficiencies of the average organization man in the evaluation of the data available to him. Statistical theory, probability theory, and theory of games have been advised as decisive remedies for his inability to cope with the problem of uncertainty of future developments.

2. The social man who is partially rational and partially irrational can become an entirely rational being if he is able to increase the rational and eliminate the irrational elements of his behavior. In order to achieve this end, organization theory attempted a dichotomy of human behavior by separating the rational from the irrational elements. Behavior prefaced by the so-called "value judgments" might be different from individual to individual, but no criterion exists for the discrimination between the rational and the irrational. One man likes beans for his lunch, while a second one likes potatoes. Who made the better or more rational decision? Assuming that both have the same price and the same nutrition value, this is a matter of value judgment or gustibus, and no answer can be given. If, however, beans are detrimental to the health of both, in this case the rational action was taken by the second. This is a "factual judgment." As Simon amplifies this idea:

Two persons, given the same skills, the same objectives and values, the same knowledge and information, can

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<sup>15</sup>John M. Pfiffner, The Supervision of Personnel (New York: Prentice-Hall, Inc., 1951), p. 3.

rationally decide only upon the same course of action.<sup>16</sup>

The idea of separation of rational and irrational elements of human behavior gave birth to the idea of policy-administration dichotomy. All value judgments about what ought to be done were considered as policy matters, defined by the policy-making bodies, i.e., the parliament, the council, the board of directors, etc. These bodies set up the goals or ends of organization. All factual judgments about what are the best ways and means for the accomplishment of these given ends, were considered as administrative matters. These ideas fitted perfectly with the traditional concept of organization and management characterized by (1) the idea of the one best way; (2) the principle of unity of command and managerial supremacy; and (3) the legalistic concept of authority.

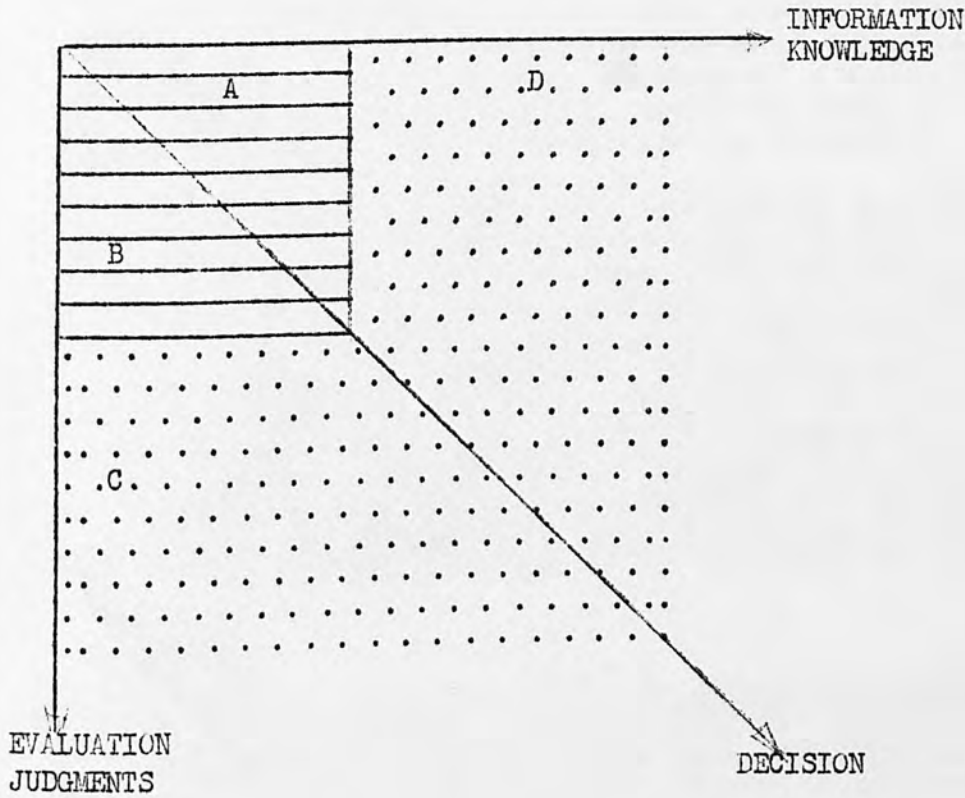
After the separation of value premises from factual premises and policy from administration, organization theory attempted vigorously the development of an exact and accurate science of rational human behavior in an organizational setting. The development of such a science inspired the idea that human behavior not only can become rational but it can be predicted and controlled for conformity with the rational model.

The new model of social man. Unlike the unified entity of the old model of social man, the new model is a fourfold one. This fourfold model is schematically presented in Figure 1.

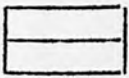
The new models of the "rationalized" organization man and rational system. On the basis of the fourfold model of social man, the normative model of a "rationalized" organization man was developed. The area of rational behavior of organization man was expanded over the respective areas of non-rational behavior of the social man. Non-rational behavior of social man, due to variations of value judgments, was eliminated in his organizational counterpart by converting such judgments into "policy givens" and depriving him of the right to determine these "givens" by virtue of the policy-administration dichotomy. Non-rational behavior, due to his computational

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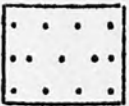
<sup>16</sup>Simon, Administrative Behavior, p. 241.



Legend:



Area of expected rational behavior.



Area of anticipated non-rational behavior.

- A = Facts which he knows and can evaluate by himself.  
 B = Factual judgments.  
 C = Value judgments.  
 D = Factors which are either unknown or which he cannot evaluate by himself.

FIGURE 1

THE FOURFOLD MODEL OF THE REAL SOCIAL MAN

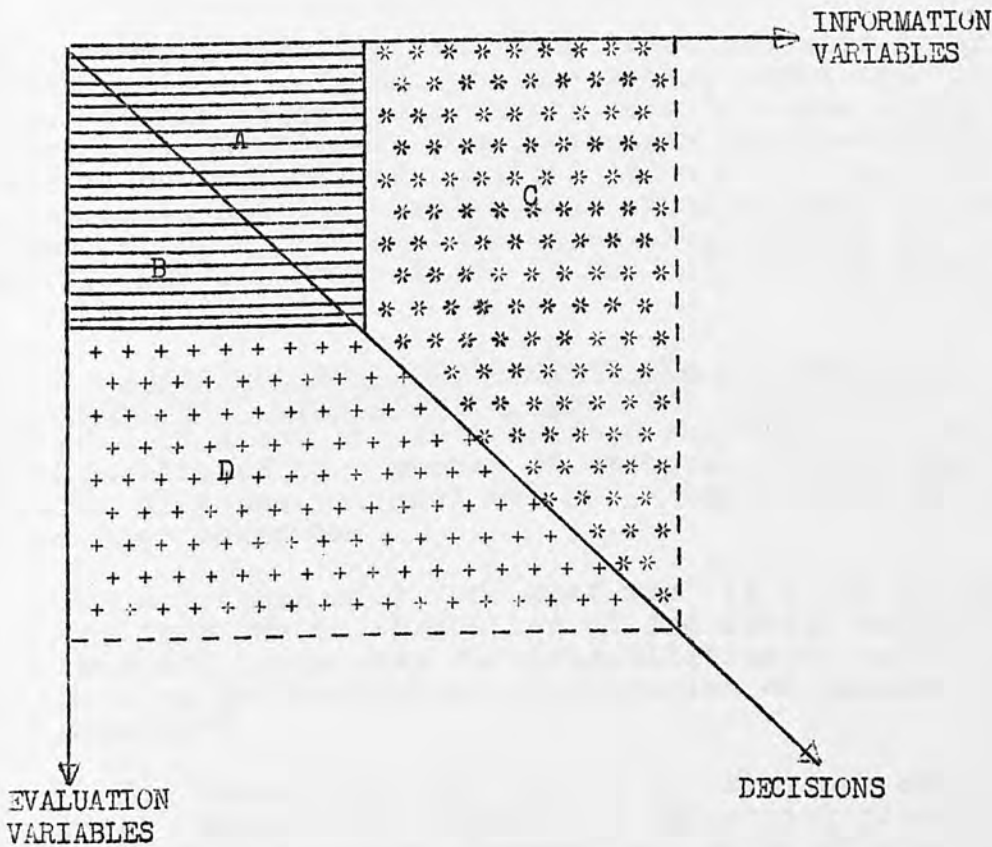
defects, was expected to be eliminated also through the development of mechanical and organizational devices, such as electronic computers, staff work, consultation, work measurements, etc. His vexing problem of uncertainty was also expected to be solved by the use of statistics and theory of games. The schematic model of such a "rationalized" organization man is presented in Figure 2.

The basic characteristic feature of the new model is that it shifts the focus of rationality from the man to the system.<sup>17</sup> The partially irrational social man is expected to become entirely rational when he joins the "system" and belongs to a rationally functioning entity. An organization with a perfectly harmonious pyramid of policy rules guiding the value judgments of its functionaries, equipped with intelligence and computation mechanisms to cope with the problem of information and ensuing computations, and possessing structural and procedural devices to supplement the limited abilities of its members for rational action, is viewed as the model of such a rational system.

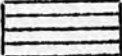
The plausibility of the new model of social man in a rational organization setting. The new model of social man in a rational system was logically plausible and empirically verifiable in many cases. There is no doubt that human beings think and search to find better ways and means to achieve their ends. Also there is no question that the most vexing human problem lies in uncertainty about future developments and inability to calculate all the relevant factors of these problems. No question remains that the part of the problem which cannot be subjected easily to an objective analysis is the area of value judgments. Consequently, in cases where remedies for these limitations were to be found, a noticeable progress was achieved. Indeed, computers, staff work, consultation, etc., resulted in a considerable increase in the organization's efficiency in many instances. The authoritarian solution of the Gordian knot, i.e., the formula of the policy-administration dichotomy, was compatible with the traditional concepts of unity of command and managerial supremacy. In few words the new model seemed to be verified on many occasions. However, the question arises whether or not these verifications are adequate enough to be considered as empirical validations


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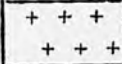
<sup>17</sup>C. Wright Mills, White Collar (New York: Oxford University Press, 1953), p. xvii.



Legend:

 Area of expected "natural" rationality.

 Area of "improved" rationality.

 Area of "controlled" rationality.

- A = Known facts which he can evaluate by his own computational capacities.
- B = Area of factual judgments expected to be naturally rational.
- C = Unknown factors which he can evaluate by using staff work, computers, statistics, probabilities, etc.
- D = Area of value judgments controlled and predetermined by "policy givens."

FIGURE 2

THE MODEL OF THE RATIONALIZED ORGANIZATION MAN



of a general theory of rational human behavior in an organizational setting. As one social researcher points out, "If one restricts a theory solely to the evidence for which it is confirmed, then obviously the theory will seem to be true without qualification."<sup>18</sup> Thus, the question is not the verification of this model of rational organization man in certain cases, but whether it is verified in all or at least in the majority of them.

Questions and doubts about the new model of "rationalized" organization man. The foundations of the new concept about the rationalized organization man have been questioned by a number of authors. First, the concept of only one rational way has been challenged. As one researcher observes:

The existence of a "one best way" is a bit of mythology from the old tradition of industrial engineering that still obscures the possibilities of major alternatives in the design and operation of industrial plants.<sup>19</sup>

His thesis was verified by the findings of his empirical research in a number of industrial plants in England. From a purely mathematical point of view also the idea of a "one best way" is not justifiable. Indeed, if the rational choice is one which possesses the highest difference (score) between the aggregated total of the values of means used (input) and the aggregated total of the values of the objectives sought to be accomplished (output), there are obviously many combinations of means and objectives which can give exactly the same score. From a mathematical point of view, if M is the number of means which can be used in combination, and O the number of objectives which are sought in various combinations, the highest number of alternatives is:

$$[(2^{M+O}) - 1]$$

For example, in a problem where 5 means can be used in combination and 3 objectives can be sought in combination, the possible alternative courses of action are  $[(2^8) - 1] = 255$ . It is obvious also that as the number of means and

<sup>18</sup>F. S. C. Northrop, The Logic of the Sciences and the Humanities (New York: Meridian Books, Inc., 1959), p. 29.

<sup>19</sup>Seymour Melman, Decision-Making and Productivity (New York: John Wiley and Sons, 1958), p. v.

objectives increases, as the case with complex administrative problems, so does the number of possible alternatives and possible courses of rational action increase. Let us amplify the above statement with an example. Suppose that a man had three objectives in his ventures: security, income, and savings. He assigned to these objectives weights 3, 2, and 1, respectively. He had \$10,000 for investment, and three insurance companies offered three investment "plans" to him. He studied the three plans and evaluated them on the basis of his three main objectives as follows:

Plan	Security (Weight 3)	Income (Weight 2)	Savings (Weight 1)	Score
A	2	2	2	12
B	1	3	3	12
C	3	1	1	12

In the above example there are three alternative choices. All had the same score and, consequently, all were rational. It is surprising how this basic premise of mathematics has escaped the attention of the founders of the theory of the one rational choice. The only explanation which seems to be plausible is that they were influenced in their thinking more by the unitary and monocratic concepts of authority and organization structure than the postulates of mathematical theory.

Second, the idea of separation of factual and value premises and the idea of the policy-administration dichotomy were also questioned.<sup>20</sup> Under the impetus of these findings the students of organization concentrated their attention on the study of values.<sup>21</sup>

Third, the feasibility of a thorough means-ends analysis has been questioned also. As indicated above, the number of all the possible alternative solutions is

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<sup>20</sup>Carroll L. Shartle, Executive Performance and Leadership (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1956), p. 7; C. W. Churchman, Theory of Experimental Inference (New York: The Macmillan Co., 1948); R. M. Hare, The Language of Morals (Oxford, England: The Clarendon Press, 1952); John M. Pfiffner and Frank S. Sherwood, Administrative Organization (New York: Prentice-Hall, 1960), p. 82.

<sup>21</sup>Cf. supra, p. 24.

large even for problems where a few factors are involved. In the conceptualization of a rational-comprehensive analysis of all the relevant alternatives, the proponents of this approach seem to ignore the mathematical laws of geometric progression as in the case of the Indian Maharaja. He thought that the officer who taught him chess playing was an idiot, because he asked for a very funny and unimportant compensation as his reward. He asked him to put only one wheat grain on the first of the sixty-four squares of the chess table and thereafter to put on each of the remaining squares a double number of grains. When the decision of Maharaja to "give up the funny request" was half-way in its implementation, he was informed that the whole fortune of his kingdom was not enough to pay off his obligation. This tale indicates the misconceptions which very often lead the layman to underestimate the outcome of calculations where the laws of geometric progression are involved.

Professor Lindblom showed how difficult it is for an administrator to make a comprehensive analysis of all the factors involved in any complex administrative problem.<sup>22</sup> Simon, amplifying his idea of "bounded" rationality, stated:

Only those factors that are most closely connected with the decision in cause and time can be taken into consideration. The problem of discovering what factors are, and what are not, important in any given situation is quite as essential to correct choice as a knowledge of the empirical laws governing those factors that are finally selected as relevant.

Rational choice will be feasible to the extent that the limited set of factors upon which decision is based corresponds, in nature, to a closed system of variables--that is, to the extent that significant indirect effects are absent. . . . For instance . . . a physician treating a patient does not take time to determine what difference the life or death of his patient will make to the community.<sup>23</sup>

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<sup>22</sup>Charles E. Lindblom, "The Science of 'Muddling Through,'" Public Administration Review, 19:79-88, Spring, 1959.

<sup>23</sup>Simon, op. cit., pp. 82-83; however, James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, 1958), pp. 137-42, seem to accept with less enthusiasm even this modified concept of "bounded" rationality.

The above statement discloses certain self contradictions. The judgment of whether or not the patient must be treated in order to survive, or whether he can be left to die without the proper medical care is a value judgment, which, according to Simon's distinction of value premises and factual premises and his conceptualization of policy-administration dichotomy, lies outside of the physician's discretion. The physician has an ethical, legal, social, and professional "policy given" to save the life of his patient without considering whether or not this is good for the community. His end is to save the life of his patient. The question of rational choice is limited to determining what is the best treatment to achieve this end. To this point a comprehensive analysis of all "the factors that are relevant" is the suggestion made by the classical school of rationality. In other words, the physician has to identify all the possible remedies, to evaluate them in terms of anticipated results and select that combination of remedies which is objectively anticipated to yield a maximum accomplishment of the end, i.e., greater probability for survival, with a minimum cost, i.e., minimum dollar expense, inconvenience, time, harm to patient's health, etc. He has to take into consideration all the medicines available in the market, to gather information about their direct results on the ailment under treatment and indirect results about other parts of his patient's body, and to make a survey of the literature about the findings of recent experiments on the results of various medicines. He also has to make projections about the indirect results of all these medicines upon the body and the psyche of his patient in the future, etc. It is obvious that an exhaustive analysis of only one of the above questions might need months or years, while the physician has to make his decision in a short period of time. It is also known that for the same ailment different physicians might suggest different treatments which can be proved successful, i.e., save the patient's life. Which one of all these treatments was the rational or best? If survival is taken as the final criterion, all were equally rational. If the number of criteria is increased and indirect effects on the patients health are included, an answer may not be given before the passage of many years. Consequently, the yardstick of the comprehensive means-ends analysis for measuring rationality is a doubtful standard.

A second question about the means-ends analysis is that it confines itself to the secondary part of the decision-making process, and it leaves outside its

analysis the primary one.<sup>24</sup> While rationality is measured in terms of means-ends analysis of "the limited set of factors upon which decision is based," the primary decision to designate these relevant and limited factors from the mass of all the factors involved cannot be measured because, as explained above, the consideration and analysis of all these factors are herculean tasks. Simon did not see any problem here, because he thought that the discovery and selection of all these "relevant" factors depended upon the "knowledge of the empirical laws governing these factors."<sup>25</sup> The analysis made in the previous chapter disclosed, however, that for the same subject-matter there are very often many "empirical laws," i.e., objective or authoritative "givens" or the laws are not clear-cut. In all these cases the decision-maker has freedom to select any of these "givens" or "ends."<sup>26</sup> Consequently, while the means-ends analysis can be used in the evaluation of the secondary decisions made for the accomplishment of these ends, it cannot be used for the evaluation of the primary decision selecting these ends, because in this decision there is no means-ends relation but only "inter-ends" evaluation. This means-ends analysis also cannot give a satisfactory answer to problems where neither the ends nor the means are known or clearly stated,<sup>27</sup> and on limited information of ends desirable,<sup>28</sup> means preferable,<sup>29</sup> etc.

The basic contradiction in the concept of rationality and hypotheses which can be developed for its explanation. The analysis presented above disclosed a basic contradiction in the development of the classical concept of rationality.

<sup>24</sup>March and Simon, op. cit., p. 137, went farther even than Simon's thesis recorded in his book, Administrative Behavior. Criticizing the classical school of rationality, they stated: "This set of alternatives is simply 'given'; the theory does not tell how it is obtained."

<sup>25</sup>Simon, Administrative Behavior, pp. 82-83.

<sup>26</sup>Cases #56,65,113,222,250,315.

<sup>27</sup>Cases #187,222,223,240,319.

<sup>28</sup>Cases #225,270,300,323.

<sup>29</sup>Cases #227,250,314,318,319.

Most of the practical suggestions for the conversion of the theory of rationality into practice and the "rationalization" of the organization man have been proved valid. Indeed, electronic computers, staff work, consultation, indoctrination into organization's goals, training or technical assistance in means-ends analysis, etc., have led to positive results toward increases in efficiency and productivity in most of the cases where they have been applied.

On the other hand, the three basic components of the theoretical construct of rationality--i.e., the concepts of the one best way, the values-facts dichotomy and the means-ends comprehensive analysis--were found to be proverbs rather than principles lacking empirical verification.

The contradiction stated above leads logically to the development of the following two hypotheses:

1. The assumed cause-effect relation between the application of the means mentioned above and the increase in organization's efficiency might be a spurious one. It is possible both to be a syndrome of another common and unknown cause instead of the "rationalization" of human behavior.

2. It might be that these means are really the primary causes of the increase of efficiency and productivity but they have no direct association with the notion of rationality. Or, to be stated in another way, the concept of rationality, as has been stated in the writings of its proponents, does not fit and correspond to the empirical evidence alleged relevant to this concept.

A methodological paradox in the development of the concept of rationality and the new model of "rationalized" organization man. The critical appraisal of the current theories of rationality and rational human behavior, attempted in this chapter, should be completed by amplifying a methodological unorthodoxy disclosed in the previous pages. The development of the new model of "rationalized" organization man, presented above, reveals a methodological paradox which seems to escape the attention of the students of organization.

As stated above, the original prototype of homo economicus was nothing else but an abstract construct

based entirely on logical deductions and lacking empirical verification. When this model was found to be incongruous with the empirical findings of social science, a paradoxical methodological issue was developed. Instead of a reconsideration of theory perspectives and a reconstruction of the normative model in order to be in operational accordance with the empirical findings, there was attempted, on the contrary, the reconstruction of the empirical subject.

In all cases where empirical observation was found to be incompatible with the norm of rationality, it was felt that nothing was wrong with the theoretical construct of the concept, but everything was wrong with the man himself. The rationality norm became the procrustean standard used to "rationalize" the behavior of the organization man.

As a result of this anatomy it was found that the expectation of rational behavior among human beings is very low. Certain writers figured that the ability of the human mind to calculate does not exceed the capacity of a two-digit computer. Norbert Weiner, for example, comparing human and electronic brains found a historical parallel with "the clever Greek philosopher-slave of a less intelligent Roman slaveholder who dominated the actions of his master rather than obeying his wishes."<sup>30</sup> The philosopher in the above metaphor is not the organization man but the computer or the rational "system."

The philosophical implications of the "drive" for the "rationalization" of the "irrational" man. In a previous page it was described how the "irrational" social man was "salvaged" and "rationalized" by being embodied into a "rational system." He was deprived of the privilege of value judgments." This privilege was reserved as a management prerogative by virtue of the policy-administration dichotomy. His new role became completely instrumental. Be efficient and neutral to what goals you serve was the commandment of the new creed. Do not think that you are so important. You are not worth more than a two-digit calculator. Every course of action which he has to take is, or ought to be, pre-described by a preposterously omniscient determinism. He has no right to develop his own solution. His role is not a creative one, but is a detective one. He must find the one rational solution which exists prior to his action.

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<sup>30</sup>"Smarter Than IBM?" Newsweek, 55:54, January 4, 1960.

It is beyond the scope of this study to amplify the further implications of such an orientation into the human life. Suffice it to say that this may be one of the most significant issues of our times. The vastness of the complex society of the urban-industrial civilization resulted in a gradual disassociation of the modern man from the political institutions of the state, the party, the community, which dominated his life over centuries. Apathy, lack of fanaticism, "civilized" political struggle all together reveal the great transformation of our era. The center of man's interest is gradually moving from the two traditional poles of family<sup>31</sup> and political institutions<sup>32</sup> into a new one, the administrative institution. Not only more and more men and women are subjected today to organizational controls than at any time before, but more and more people suffer today from ulcers, neuroses, etc., because of this participation and these controls. This important issue and its further implications seem to escape the attention of most of the students of organization. The basic philosophical contradiction which underlies the movement of behaviorism illustrates how students of organization, confining their thinking on the particular issue of rationality, have failed to grasp the broader philosophical issues involved. The contradiction with the school of behaviorism is that, while it is inspired by a grass-roots democratic approach --how people actually behave--its aspiration is to find a totalitarian formula of conformity by building an exact science of man able "to predict and control human behavior."<sup>33</sup>

The above analysis was presented in order to illustrate the importance of the subject and its significant implications beyond the area of organization effectiveness. Without this analysis in mind, one could question our concern with the theoretical construct of the concept

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<sup>31</sup>David Riesman, Nathan Glazer and Renel Denney, The Lonely Crowd (Garden City, N.Y.: Doubleday Anchor Books, Inc., 1953); Robert F. Winch, The Modern Family (New York: Henry Holt and Co., 1952), p. 175.

<sup>32</sup>Ibid.

<sup>33</sup>Chris Argyris, Personality and Organization (New York: Harper and Brothers, 1957), p. 4, looks for such an objective although his approach is basically humanitarian and democratic.



or rationality, since its practical suggestions have been found to increase productivity where they have been applied. If the theoretical foundation of these measures is questionable on the basis of empirical observations and internal contradictions, this is an academic matter and not a practical one. However, the previous analysis disclosed that in reality our concern is a very practical and a very important one.

An Empirical Re-Appraisal of the  
Concept of Rationality on the  
Basis of the Research Findings

As mentioned in a previous chapter,<sup>34</sup> this research project was oriented toward an inductive and operational formulation of the various definitions and concepts developed. Within this frame of reference, the search for an operational concept of rationality remained entirely non-structured, lacking any formalization or any tentative conceptualization of the group of phenomena and theses associated with this concept.

Although the basic approach was to keep the researchers as free as possible from preconceived ideas, theses, and hypotheses on the subject-matter, it was decided that their attention and observations should be concentrated on the cluster of phenomena relevant to the concepts of rationality, effectiveness, efficiency, economy and productivity. For this purpose the following question was included in the questionnaire used for the collection of the data:

What was the effect of the decision or non-decision in accomplishing organization goals?

Rationality and reason. In ordinary language the concept of rationality is associated with the concept of reason. A college dictionary, for example, offers the following five different definitions of rationality: (1) the quality of being rational; (2) the possession of reason; (3) reasonableness; (4) the exercise of reason; (5) a rational or reasonable view, practice, etc.<sup>35</sup>

<sup>34</sup>Supra, pp. 10-11.

<sup>35</sup>Clarence L. Barnhart (ed.), The American College Dictionary (New York: Harper and Brothers, 1951), p. 1005.

The definition stated above, which is in actuality an operational description attempting to convey the universal meaning of the semantic terms of rationality and reason, indicates that reason in ordinary language is generally considered as the foundation of rationality. In other words, human behavior is considered as rational when it is guided by reasoning, and, consequently, irrational when reasoning is absent.

In ordinary language reason is considered identical with common sense. Experience plus common logic, i.e., the logic of the average man, determine whether or not a certain course of action is reasonable and, consequently, rational.

In contrast with the conceptualization of reason and rationality in ordinary language, economists and industrial engineers developed their own concept of rationality based on the idea of a comprehensive means-ends analysis. This concept was amplified in the previous pages.<sup>36</sup>

The difference between the two concepts, i.e., the concept of the ordinary language and that of industrial engineers, is mainly not on the interrelations between rationality and reason, but on the character and formation of reason alone.

In the classical concept of rationality reason is considered identical with a universal logic, and is independent of time, place, and objectives.<sup>37</sup> Given the objectives and the means for their accomplishment, the one rational course of action can be found through only a logical analysis.

In the ordinary concept of rationality reason is considered the product of experience and common logic. Experience is the aggregate knowledge of previous incidents, while common logic is a number of guides to thought deducted from the memory of such an experience systematically articulated.

The above analysis illustrates that while the classical concept of rationality views unified and unchangeable reason as the standard criterion of rationality, the ordinary concept follows a pluralistic approach. There could be as many systems of common logic as the

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<sup>36</sup> Supra, pp. 108-111.

<sup>37</sup> Supra, pp. 102-103.

number of experiences upon which these systems are based.<sup>38</sup> However, because all these experiences have been drawn from the same source, the human society, they have certain common elements. These common elements are characterized by a kind of universality, which is, however, relative and does not resemble the omniscient stability of the universal logic underlying the classical concept of rationality.<sup>39</sup>

Because of the conflict between the ordinary and the classical concepts of rationality over the issue of reason, the following three questions were raised during the analysis of the data collected: (1) What is the place of the concept of reason in administrative decision-making? (2) Has reason in administration a distinctive meaning different from that of ordinary language and the classical school of rationality? (3) What are the component elements of such an administrative reason and to what extent do they differ from those of ordinary language and the classical school of rationality?

The analysis of the cases collected disclosed that:

1. A very few decisions appeared to be made without systematic consideration or reasoning.<sup>40</sup> Even in

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<sup>38</sup> A good parallel example for the possibility of a pluralism in systems of logic is seen in the field of geometry where two logical systems of geometric thought have been developed, the Euclidean and non-Euclidean advanced by Gauss, Lobachevski, Bolyai and Riemann. Cf. infra, pp. 227-8; as Perrin Stryker and the Editors of Fortune, A Guide to Modern Management Methods (New York: McGraw-Hill Company, Inc., 1954), p. 93, observe: "The belief that the top managements of large corporations have a single-minded devotion to profits is one of the great myths of modern American capitalism."

<sup>39</sup> The development of these two concepts on rationality has a historical parallel with the development of two similar concepts of law--the natural law and the positive law--which parallel offers very interesting insights on the philosophical foundations and empirical formation of the two conflicting concepts of unity and pluralism and the concepts of abstract and empirical reasoning. William Ebenstein, Introduction to Political Philosophy (New York: Rinehart and Company, Inc., 1952), p. 49.

<sup>40</sup> This does not mean, of course, that an exhaustive and all-inclusive analysis preceded every decision, but simply that no decisions were reported as made by tossing

these cases there was no certainty that the lack of reasoning or systematic consideration was either the result of a pathological situation and extreme exemption, or that it had been hidden in such a manner that it was not observed by the researcher.

As will be explained below, however, this reasoning was closer to the ordinary concept of rationality rather than to the classical concept advanced by economists and industrial engineers.

2. In spite of the variations of systems and bases of reasoning discovered, all of them had a common mantle and a dual basis.

The common mantle was that all the reasons used to support decisions and actions, made in the name of the organization, were spelled out in terms of advancing "the interests of the organization." For example, in the case which referred to the question of painting or not painting the police cars black and white,<sup>41</sup> three basic "reasoning versions" were disclosed, all spelled out for "the interests of the organization."

First, the reasoning of the patrolmen:

All the other cities have marked their police cars. This means that this is good for the accomplishment of the organization's mission. Why could we not?

Second, the reasoning of the police chief backing his original decision to consider the matter:

Since other cities mark their cars, it may be a good measure. Moreover, it is good for the morale of my staff; and, consequently, it is good for my organization to pay attention to the suggestions of my subordinates. Let me consider the case.

And, third, the reason behind his final decision to paint the cars:

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a coin or randomly selecting any alternative but that some sort of thought and analysis preceded the decisions.

<sup>41</sup>Case #250.

I cannot see any clear-cut advantage of either one of the two alternatives; but since marked cars are used by other cities and they are desired by my men, I think that this solution advances the interests of my organization in two ways; first, it applies a generally acceptable solution which in the opinion of many others is good or at least acceptable; and second, it satisfies my men by keeping their morale high, which is also good for my organization.

The dual basis of decision-making in an organization setting takes the following pattern: (1) the administrator has his own logic which prefaces his personal attitude on each case; on the basis of this personal attitude he makes his original decision; (2) then he clothes this decision with the official mantle in order that it can be spelled out in terms of "advancing the interests of the organization." This is what is called in the administrative vernacular face validity.

For example, in case number 221, six groups of people--the rank and file of a police department--spoke the same language and had, theoretically, the same common objective: to advance the interests of the organization. Nevertheless, as analyzed below, more than six personal bases of logic were disclosed as guiding their actions and decision, all spelled out in the name of and for the interests of the organization. These were:

a. The logic of the Assistant Chief who thought that nothing was wrong in the appointment of his uncle as a "special" officer and his gradual and informal promotion to the duties of a regular officer.

b. The logic of the regular officers who "disliked and resented their department being represented by 'uncle.'"

c. The logic of the day-watch Sergeant--opposite to the logic of the Lieutenant and Captain--that "if 'uncle' were permitted to drive a patrol wagon, it would be permissible to him to drive a patrol car," which logic resulted in "uncle's" being gradually lifted from the status of a part-time meter maintenance man to the status of a full-time regular officer.

d. The logic of the Lieutenant which required him to report "uncle's" wrongdoings to the Captain but not to push the matter further, since he was still on probation.

e. The logic of the Captain who felt, "it was not wise to incur the wrath of the Assistant Chief by criticizing the use of 'uncle.'"

f. The logic of the Police Chief to trust the wisdom of his Assistant's recommendations but to reprimand the Lieutenant because he failed "to advise his superiors of a situation detrimental to the Department."

It is evident that the above "individual logics" were the results of personal experiences and common logic. In case number 308, this is more clear. A foreman refused to fire a permanent employee because of "an experience he had when working for another city. . . . The hearing turned into a trial of the foreman rather than of the dismissed employee."

As stated previously and as will be analyzed later on, one should not conclude that there are as many individual kinds of logic as there are members of the organization and, consequently, there is no hope of tracing and studying all these numerous ramifications of logic and reason. On the contrary, because of the fact that all of these types of personal logic are drawn from the same social or organizational environment and because of the mutual influences that each exercises on the other, certain common patterns of reasoning can be found in various levels of the society, the community, or the organization. In case number 221, for example, one can conclude that many lieutenants would behave the same way under the same circumstances as the lieutenant in the case.

Another limitation is that these "logics" cannot be implemented through organization decisions and actions unless they meet the requirement of advancing the interests of the organization. Barnard first pointed out this difference between implementation of individual desires--guided by individual logic--in the personal affairs of an individual from this implementation of these desires in his official duties in an organizational setting. He quoted an often repeated phrase among organization men, "If this were my business, I think I would decide the question this way--but it is not my personal affair."<sup>42</sup>

3. As mentioned in Chapter IV on policy and

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<sup>42</sup> Chester I. Barnard, The Functions of the Executive (Cambridge: Harvard University Press, 1938), p. 188.

policy-making, the normative imperatives of administration such as effectiveness, economy, and efficiency, are stated in both theory and practice in a sharp and simple way, while the actual situations upon which these imperatives applied are complex and not clear.<sup>43</sup> The classical school of rationality believes that from these general directives more specific and detailed guides fitting exactly to the particulars of specific situations can be deduced through consecutive logical analysis. The concept of a pyramid of guides with normative imperatives on the top and pattern solutions on the bottom has been considered as the only pattern of logic in organizational decision-making.<sup>44</sup> As mentioned in the previous chapter, however, the process of such a deduction is so long that it clashes with the ability of the administrator and the time limitations under which he usually operates. As a rule, administrators work on certain intermediate goals which very often conflict with each other and which goals form a constellation or galaxy rather than a pyramid.<sup>45</sup> In case number 19, for example, the director of a county bureau wanted a budget exemption in order to meet his excessive needs in printing and binding materials. Instead of making a complete analysis to find the valid solution for the county government as a whole by deducting a solution to his problem from the normative imperatives of economy, efficiency, and effectiveness, he found a shorter way to develop his reasoning. His syllogism was based on the following premises: (1) his department must have what it needs--basis of his logic; (2) the best alternative is that which accomplishes this specific goal--basis of his choice; and (3) this intermediate and specific goal can be accomplished only if he "exploits" the existing procedures and managerial psychology in order to take "advantage of timing"--implementation of his system of logic.

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<sup>43</sup>Supra, pp. 83-84.

<sup>44</sup>This concept of derivation of guides in decision-making has two parallel theories in the field of jurisprudence. The German, H. Kelsen, Allgemeine Staatslehre (1925), pp. 6243-44, advanced the theory of law formation in consecutive steps--Stufenbau des Rechts, and French theorists a similar one, the so-called theory of "concretisation," i.e., the deduction from the abstract principles of the constitution to concrete administrative decisions and ministerial actions. Cf., however, supra, pp. 85-86.

<sup>45</sup>Supra, pp. 83-86.

In conclusion there are many alternative systems and bases of reason about what advances the interests of the organization because of (1) differences in values,<sup>46</sup> (2) multiplicity and pluralism of intermediate goals which very often overlap or conflict each other,<sup>47</sup> and (3) gradual association of administrators with these intermediate goals and disassociation with the general and normative imperatives.<sup>48</sup> In all these cases the classical concept of rationality, as has been developed by economists and industrial engineers, cannot offer a decisive criterion in the problem of choice of the one among the many alternatives which are based on different systems of logic because its whole edifice is built around the axiom of a monistic instead of a pluralistic system of logic.

Rationality and effectiveness. As mentioned above, the classical concept has identified rationality with effectiveness and efficiency.<sup>49</sup> An analysis of the answers given to the question of the effect of the decision or non-decision in accomplishing organization goals mentioned above,<sup>50</sup> disclosed that:

1. The conceptualization of effectiveness among organization people does not follow the sharp approach of the classical school of rationality. Administration is a continuous process of consecutive decisions and actions which are not all in direct linear relationship with the assumed organization goals.<sup>51</sup> The effect of each decision

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<sup>46</sup>Cases #265,270,278,309,323.

<sup>47</sup>Cases #222,240,265,309; Pfiffner and Sherwood, op. cit., pp. 389,409-413.

<sup>48</sup>Cases #19,223,323; March and Simon, op. cit., pp. 152-53.

<sup>49</sup>Supra, pp. 100-101. A course of action is usually considered effective if it accomplishes the desired objective or objectives and efficient if it accomplishes these objectives in the best way, i.e., with the greatest possible ratio between in-put and out-put.

<sup>50</sup>Supra, p. 115.

<sup>51</sup>Cases #19,81,166,187,222,240,267,270,278,309.



is not a matter of instantaneous consumption and clearance but is accumulated in the "effectiveness depository" of organization. This effectiveness depository has fluctuating values dependent on a number of circumstances, which are not all known or controlled by the decision-maker at the time of his decision.<sup>52</sup> One who wants to evaluate the effectiveness of a decision faces a dilemma. If he evaluates a decision on the basis of the facts known to the decision-maker at the time of his decision, he may come to a paradoxical conclusion by evaluating a decision as effective while later developments proved that this decision was an ineffective one.<sup>53</sup> If he makes an ex post facto evaluation, then he contradicts the basic principle of rationality by shifting the focus of his evaluation from the facts which the decision-maker considered in making the decision to the fate of the decision-maker. Moreover, each decision has certain indirect effects which, sometimes, are far more important than its direct effects. A decision may become the beginning of a chain of sequential decisions or a policy precedent--stare decisis.<sup>54</sup> The classical school of rationality with its criterion of efficiency cannot solve the problem of evaluation, because it is not able to answer the question: effectiveness, when, and for what?<sup>55</sup>

In summary, the problem of evaluating the effectiveness of a decision or non-decision in accomplishing organization goals is one of increasing complexity. If one decision is related to one goal at a given time, then its effectiveness could be measured in terms of the extent to which it accomplishes this single goal. Nevertheless, even in cases where a single objective seemed to be predominant as, for example, in business organizations where profit-making is considered the single objective, the evaluation of effectiveness was not an easy task. Which is the most effective decision in a local food market? The one which makes the greatest money yield or that which strengthens the reputation of the company? A decision evaluated according to the current conditions may be classified as very effective, because it provides the greatest money yield. However, the same decision could

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<sup>52</sup> Cases #104, 191, 222, 225, 318.      <sup>53</sup> Cases #191, 225.

<sup>54</sup> Cases #221, 222, 246, 315, 323.

<sup>55</sup> Cases #19, 45, 104, 107, 222.

be proved a few years later as an ineffective one because of the negligence of the company to sacrifice a part of its profits in favor of a good reputation, or good public relations, could cause competitors to take a great part of its clientele.

2. The conceptualization of effectiveness among organization people does not follow the sharp approach of the classical school of rationality. In an organizational setting effectiveness is understood as:

- a. A rather loose term embracing the total efforts of the organization between a minimum aspiration for survival<sup>56</sup> and a maximum one for expansion to the extent that existing conditions permit.<sup>57</sup>
- b. It has a dual connotation. The first is relevant to the evaluation of the organization status within its environment and is delimited by the poles of a minimum for survival and a maximum for expansion. In this respect the denominator of an organization's effectiveness has two factors, organizational response to the problem and environmental reaction to the organization's decision. For example, in case number 36, the City Manager fired the inefficient superintendent of the electric power station (organizational response). The fired superintendent was the son-in-law of the Mayor, who became very irate and ran for re-election. One of the issues of his platform was the hiring of a new City Manager. The Mayor lost (environmental reaction) and the City Manager's decision was proved (ex post facto) effective. However, if the Mayor had won, not only the City Manager's decision would have been ineffective, but he could have lost his job. In case number 272, the Rocketdyne Company spent about 90,000 dollars for the training of technicians and representatives in overseas locations for the Thor missile development (organizational response). The decision for training was made on the anticipation that the government might give a contract to the Rocketdyne Company for Thor missiles (environmental reaction). Consequently, the effectiveness or non-effectiveness

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<sup>56</sup>Cases #222,270,281,318. <sup>57</sup>Cases #19,91,222,323.

of the decision was dependent on the government's future plans. The second connotation is relevant to the internal state of affairs of the organization and seems to be in general use in the daily vernacular of organization men. It refers to the conditions and circumstances under which a puzzling organizational problem was solved. In other words, it refers to the response of the various parts of the organization in "getting through" a problem.<sup>58</sup> If the crew managed successfully to drive the organization ship safely to its port, then the overall effect of the communications, suggestions, consultations, commands, interactions, etc., among the members of the organization was evaluated as effective.<sup>59</sup> Such a gross evaluation may embrace many particular decisions or actions which could be "bad" but their consequences were overwhelmed by other "good" decisions resulting in an overall satisfactory effect.

3. Effectiveness is not considered as an independent value. Effectiveness does not seem to be a super-value or a super-criterion which can be used as a common denominator in measuring organizational activities regardless of time and place. It is a relative, rather than an absolute, value with a fluctuating meaning conditioned by many factors, such as tradition, environmental conditions, and cultural implications.<sup>60</sup> In other words, the definition and delimitation of effectiveness vary from organization to organization and from time to time, and they are subjectively developed. This is conspicuous in cases number 36 and 185 where similar decisions were differently evaluated in terms of effectiveness because of differences in underlying philosophies.

In conclusion, the basic problem of evaluating the effectiveness of an administrative decision is that such

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<sup>58</sup> Cases #17, 42, 91, 92, 222, 246.

<sup>59</sup> Cases #17, 91, 92, 226, 230.

<sup>60</sup> Cases #19, 30, 65, 78, 99, 105, 222.

an evaluation is based necessarily on hindsight prediction<sup>61</sup> because a great number of administrative decisions are founded on unknown or uncertain factors. The classical concept of rationality computes the rate of organizational effectiveness by using the formula:

$$(1) \text{ Effectiveness} = \frac{\text{Results Achieved}}{\text{Means Used}}^{62}$$

In real situations, the operating formula was found to be:

$$(2) \text{ Effectiveness} = \frac{\text{Results Achieved} \pm \text{Future Consequences}}{\text{Organizational Response} \pm \text{Environmental Reaction}}$$

or

$$(3) \text{ Effectiveness} = \frac{\text{Results Already Achieved} \pm \text{Unanticipated Future Consequences}}{\text{Known Factors} \pm \text{Unknown Factors}}$$

The classical school of rationality does not see any difficulty in converting the unknown terms of the above formulas into known ones by using probability and game theories. In actual situations, however, it was discovered that such a conversion is not an easy task.

<sup>61</sup> Irwin D. F. Bross, Design for Decision (New York: The Macmillan Company, 1953), p. 38, defines hindsight prediction as "the prediction of an event after it has already occurred."

<sup>62</sup> Professor Wallace Best, in a mimeographed paper included in the Executive Development Syllabus of the Pakistan Project of the School of Public Administration, University of Southern California, presents a more elaborate formula as follows:

$$Ef = \frac{qn + ql}{mr + hr}$$

where Ef = efficiency  
 qn = quantitative output  
 ql = qualitative output  
 mr = material resources used  
 hr = human resources used

First, not all the unknown factors can be converted into one probability percentage. For example, in case 221 when the Lieutenant and the Captain decided, "It is not wise to incur the wrath of the Assistant Chief by criticizing the use of his 'uncle,'" they considered two sets of probabilities. One was the probability of "wrath of the Assistant Chief" and the other the probability of some future wrong doing of "uncle" which could be counted in their supervisory responsibility.

Second, not all the sets of probabilities can be merged into a single index.<sup>63</sup>

Third, there is a superficial oversimplification about the use of the language of numbers in administration. This stress of the use of numbers is more imaginary and theoretical than empirical and practical. Indeed, the emphasis on quantitative treatment of all the administrative problems and numerical presentation of the relevant facts produced the picture of an administrator speaking no other language than the language of numbers. In the manual stage of data processing the administrator had to convert all the qualitative data into quantitative ones and to make all the necessary computations in order to arrive at a single efficiency score for each alternative.<sup>64</sup> In the mechanized stage of administration his role became more simple. He has just to feed the machine with the data which he collected, and the machine produces the score. Thus, he is transformed from an analyst and mathematician to a field canvasser and machine operator.

In all of this discussion emphasis has been placed on the so-called computational capacities of the administrator and scant attention has been paid to other properties of the human mind and human personality in the direction of solving problems and evaluating uncertainty. The research findings disclosed that besides numerical computations, administrators also use other properties of their minds and personalities which are far more important in effectiveness and success than their ability in numerical computations. Administrators have the ability to read in the eyes of their fellowmen their secret thoughts or reactions; they have intuitive powers to "feel" which of

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<sup>63</sup>Cases #104, 187, 222, 251, 315, 318, 319.

<sup>64</sup>Cf. Figure 5, p. 165.

the many equally good or equally bad alternatives is the best; they have a depository of experience which is used as a cross-reference file with official and numerical data; they have simplifying devices or principles of thinking by which they can attack a complex problem and reduce it to a manageable size, etc.<sup>65</sup> Because of the general and exploratory character of the research, the data collected do not offer a precise picture of this network of properties which all together comprise the model of the effective administrator. They do offer, however, enough evidence to conclude that the issue of administrative effectiveness is a complex one based on a network of personal, organizational, and environmental factors where the question of quantification and numerical evaluation of the data comprises only one dimension of the whole problem.

Rationality and efficiency. The remarks made above for the norm of effectiveness as a decisive criterion in evaluating an organizational decision are not only applicable to the norm of efficiency, but they are more salient there. The norm of efficiency introduces the additional requirement that the organizational decision must not only be a successful one but it must be also the best one. This additional requirement makes the whole problem of evaluation of the decision more complex and also points up more sharply the shortcomings of the classical concept of organizational rationality.

A summary reconsideration of the concept of rationality in organization decision-making on the basis of the research findings. The analysis presented in previous pages disclosed that:

1. Decision-making in an organizational setting is a rational process in the ordinary meaning of the term in the sense that reason is considered the foundation stone of administrative behavior.

2. By reason is meant a set of logical arguments which support each decision and from which the general statement is formulated that the decision, according to the decision-maker's opinion, is the best in terms of advancing the interests of the organization.

3. In many cases there might be more than one set of logical arguments supporting different alternative solutions

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<sup>65</sup>Cases #240, 255, 310, 316, 318.

to the same problem. As explained previously, this is theoretically and empirically possible.<sup>66</sup> Thus, the problem of choice in many actual administrative situations is, in the last analysis, not a problem of choice between logical or illogical and, consequently, between rational and irrational alternative courses of action, but it is a problem of choice between alternative courses of action being equally logical and rational on the basis of the set of arguments which support them.

4. Which of these equally logical and rational alternative courses of action is the best, i.e., the most logical and rational? This is a question which cannot be answered unless a super-criterion or a "super-logic" is developed. The classical school of rationality developed the concept of the comprehensive means-ends analysis<sup>67</sup> based on the universal laws of logic and mathematics,<sup>68</sup> which concept was presented as the needed super-criterion in the evaluation of administrative decisions.

5. The analysis of the data revealed that this concept lacks empirical validation, and it is superficial and unrealistic. In a complex and pluralistic society, there is no single depository of the "universal truth" where the administrator can apply for an authentic and objective statement about what is the best in terms of advancing the interests of the organization. What is the best is subjectively defined through interactions of the people involved or concerned about a particular decision.<sup>69</sup>

Has the concept of rationality a specific connotation in administration? The analysis presented above illustrated that while the concept of rationality in administrative situations does not clash with the generic meaning of the term as it is used in ordinary language, it does not correspond with the concept of rationality advanced by economists, mathematicians, and efficiency engineers. In all of the previous discussion the approach was negative, i.e., what rationality in administration is not. The question which follows logically is, "what is rationality in the area of organization and management?" This problem was analyzed by means of the following two questions: (1) Has rationality in organization decision-making a different

<sup>66</sup> Supra, pp. 107-8.      <sup>67</sup> Supra, pp. 100, 102-5.

<sup>68</sup> Supra, pp. 116-18; cf. also Lindblom, loc. cit.

<sup>69</sup> Cases #257, 278, 285, 304, 308, 309, 313, 315, 323.

connotation which distinguishes it from both the generic meaning of the term in ordinary language and the classical concept of the means-ends comprehensive analysis? (2) If so, what is this specific connotation which for purposes of identification is called here administrative rationality?

### Administrative Rationality

As stated previously, the process of solving problems in organizational situations is developed within the framework of a plurality of goals, guiding rules, and personal estimations about the proper decision or action. It was disclosed, moreover, that while the selection of one among many alternative courses of action is not a matter of random choice, there is not a standard and universal criterion which can be used directly to detect the preferable selection, but, often, sets of equally logical syllogisms support more than one alternative. Since the role of administrator is not limited to the evaluation and scoring of alternatives, inasmuch as the administrator must select one alternative among them, the question was raised as to whether or not there is a common pattern of methodology for problem-solving guided by certain norms and whether this pattern could be discovered as an empirical or behavioral model applicable to all or at least to average or normal administrative situations.

The data collected revealed that such a pattern does exist. It was found that in various cases, where the problem of choice presented the same characteristics of pluralism in accomplishing or non-accomplishing organization goals and in the sets of probabilities about anticipated outcomes, administrators in different situations and under different conditions, used the same method of choice. For example, instead of trying to establish a hierarchy of preferable means-ends combinations, at any cost of time and effort, they applied a more simple method. They imitated what other administrators did in similar situations.

The revelation of such common problem-solving devices led to the hypothesis that a consistent body of behavioral norms might be in general use in organizational decision-making. The analysis of the data not only proved the hypothesis as true, but it disclosed also that this body of norms is one of the essentials of administration.

The essence of organization: a pluralistic structure. In the theory of administration, organization is usually treated as an entity in itself. Theorists and



practitioners speak about the goals of the organization, the perspectives of the organization, the reaction of the organization, the loyalty to the organization, etc., as if the organization has a distinctive personality. In all of this discussion organization is considered as an extension and image of the individual "boss." The board of directors is the mind, the secretariat the mouth, the communication lines the nerves, etc., of this integrated personality called organization. The modern organization is visualized as a cyclopean replica of an individual entrepreneur. Even authors who do not belong to the school of the organismic theory<sup>70</sup> treat organizations as integrated and distinctive entities.<sup>71</sup> Basing their thoughts on the notion that the whole is more than the sum of its parts,<sup>72</sup> they conclude either directly or indirectly that organizations are organic entities possessing characteristics similar to those of the human personality. This conception is not limited to organization theory, alone, but it is widespread in all the levels of modern society. The expressions are heard very often that "the company does not tolerate such a behavior," "the organization demands loyalty from its members," or "the agency came to terms with the A pressure group," etc.

It is true that an organization is something more than the sum of its parts. It is true also that organization possesses certain characteristics similar to those of the human personality, such as ability to learn, memory, will, and consciousness.<sup>73</sup> Nevertheless, the question which is raised is whether these similarities are adequate to support the thesis that organization is a distinctive and organic entity integrated into one functional unity<sup>74</sup> as the human personality is.

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<sup>70</sup>Supra, p. 18

<sup>71</sup>E. W. Bakke, The Fusion Process (New Haven, Conn.: Yale University, Labor and Management Center, 1955); Argyris, op. cit.

<sup>72</sup>Supra, p. 12 n.14.

<sup>73</sup>Karl W. Deutsch, "Mechanism, Teleology and Mind," Philosophy and Phenomenological Research, 12:185-222, December, 1951.

<sup>74</sup>An entity is considered as being in functional unity when "each of its elements contributes to its persistence and effective operations." Peter M. Blau, Bureaucracy in Modern Society (New York: Random House, 1956), p. 32.

The analysis of the data collected disclosed that an organization resembles in many aspects the human personality, but it presents a fundamental difference from the latter which difference seems to receive scant attention. This fundamental difference is not in the size or in the complexity but in the non-integrated and pluralistic character of the organization. The human being has one mind, one nerve system, one stomach, etc. Double organs, such as eyes, ears, and kidneys, are also integrated into the single systems of sight, hearing, etc. Finally, all of these systems are integrated into one personality.<sup>75</sup> Organization, on the contrary, does not exhibit such an integration, but it consists of a multitude of overlaying or parallel systems.<sup>76</sup>

The research findings disclosed that organizations are complex entities consisting of multiple systems of

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<sup>75</sup>According to James Drever, A Dictionary of Psychology (Baltimore: Penguin Books, Inc., 1958), p. 203: "The most comprehensive and satisfactory [definition of personality] is the integrated and dynamic organization of the physical, mental, moral, and social qualities of the individual as that manifests itself to other people."

<sup>76</sup>Pfiffner and Sherwood, op. cit., pp. 16-32, 87, 157. Although many students of organization became aware of a pluralism in the component elements of organization and advanced the concepts of formal and informal organization, pluralism in the organization hierarchies, etc., they did not, however, abandon the idea of an integrated organizational personality incorporating both functional and dysfunctional elements. L. Urwick, The Theory of Organization (New York: American Management Association, 1952), pp. 7-8; A. G. D. Collers, "Organization Concepts," British Management Review, 7:2-5, July, 1949. John M. Pfiffner, Organization: The Science of Hierarchy (Los Angeles: University of Southern California, n.d.), p. 30; Chester Barnard, op. cit., pp. 116-123; Charles P. McCormick, Multiple Management (New York: Harper and Brothers, 1938); Charles P. McCormick, The Power of People: Multiple Management Up To Date (New York: Harper and Brothers, 1949); Harlan Cleveland, "Dinosaurs and Personal Freedom," Saturday Review, 42:13, February 28, 1959.

loyalties<sup>77</sup> and expectations,<sup>78</sup> which may supplement, overlap, or conflict with each other. To join an organization means in the last analysis to enter an operating system of multiple loyalties and expectations, and to behave in an organizational setting actually means to be identified with loyalties and expectations.<sup>79</sup> In a city government, for example, the City Manager is required to be loyal to the city council and is expected to carry out the council's policies, to advise the council on the proper action, to exercise leadership on the city's personnel, etc. In turn, he expects his Department Heads, who are also required to be loyal to the city council, to be loyal to him; and he has, also, certain expectations of each of them.

These requirements of loyalty and expectations go down through the whole hierarchy. While the formal organization is built around the idea of a hierarchical order of loyalties and expectations following the hierarchical pyramid, the informal organization is oriented toward a reverse order. Finally, the one actually operating organization--where both formal and informal elements are fused--consists of a system of mutually dependent and reciprocal loyalties and expectations. The City Manager, for example, expects from his Department Heads something more than "formal" loyalty. He wants, sometimes, "exclusive" loyalty, and in turn he offers his leadership for the protection of their legitimate interests which means, actually, that he offers, informally, his loyalty to them.

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<sup>77</sup>This term is used here with a broader meaning than in ordinary language and means a formal or informal acceptance of an obligation by one person or group to serve in a certain way another person or group during the period of effectiveness of the obligation.

<sup>78</sup>This term, as used here, means a demand expressed formally or informally by a person or a group and directed to another person or group according to which the latter must offer a service to the first in a certain way.

<sup>79</sup>Elizabeth and Francis Jennings, "Making Human Relations Work," Harvard Business Review, 29:3, January, 1951.

The case number 309, for example, provides a good illustration of how this system of loyalties and expectations operates. The City Council asked the City Manager to study and report to the Council which of the positions presently under civil service regulations should be exempt. According to the Weberian model and the school of rationality followed by economists and efficiency engineers, not only the City Manager but the whole hierarchy should be put in motion in order to transform this policy directive into action. The City Manager, by virtue of his loyalty to the City Council, should study the matter on the basis of what alternative best advances the interests of the "organization," and on the basis of City Council's expectations he should present to the Council data and recommendations based entirely on the efficiency principle. The case reported stated, however, that (1) the City's rank and file did not react sine ira et studio according to the Weberian model, but "the motion created a great amount of unrest on the part of the employees," (2) "the City Manager realized that . . . he had to decide how to handle the unrest," and (3) when "after several weeks the furor died down . . . the City Manager had to take care that his report did not arouse it again."

Here, it is clear that the problem of the City Manager was to identify his decision with one of the four, five, or more networks of loyalties and expectations formed after the Council's decision. Although the case reporter does not offer complete data on the matter, his information is sufficient to speculate about the following alternative systems of loyalties and expectations opened to the City Manager for identification:

<u>Loyalties to:</u>	<u>Expectations associated with loyalties:</u>
City Council	The present system is not good, and a number of additional positions must be exempt. The City Manager <u>must</u> find it.
Community Groups	Unknown--probably identical with City Council.
Department Heads	The present system is good and the City Manager is expected to "show it" and protect us.
Committee on expansion of Civil Service Classification	The present system is not good enough. Civil Service regulations must be expanded to every position. The City Manager <u>must</u> assume leadership for the expansion.

a federation or "co-operation"<sup>82</sup> of parallel and co-existing organic units working together in the same environment not toward common ends but for common ends has been rather neglected under the impetus of the traditional organization concepts fostered in the legalistic doctrines of unity of authority, unity of command, co-ordination, co-operation, etc., and the anthropomorphic interpretations of organizational phenomena.

One of the reasons which produced this strong tendency toward the conceptualization of organization as an integrated and unitary personality might be due to historical developments. Indeed, most of the modern big business organizations were created by individuals who dominated their early years of life.<sup>83</sup> In all of these cases the organization--the administrative apparatus of the enterprise--and the dominating individual--the head, owner or "boss" of the enterprise--were considered as identical. Through this identification the pluralism of the organization was hidden. What was good for the owner was good for the organization also. The goals of the organization were defined authoritatively by the "boss." The bureaucratization of the administrative organizations and the managerial revolution resulted in the separation of ownership from the management of enterprise. This change, however, has been viewed as a change in size but not in kind. The integration of organization was not destroyed, because the integrating force--the boss--was replaced by another integrating force--the professional manager--who, by virtue of his technical ability, was able to achieve this perfect integration and became the "image" of the organization.

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<sup>82</sup>The term co-operation is used here with the specific connotation of systems or units operating together in a broader complex.

<sup>83</sup>Ford, Dupont, Rockefeller and Carnegie are a few examples. John Rowan Wilson, Means To An End: A Novel of Big Business in New York, London and Paris (New York: Doubleday and Company, Inc., 1959), p. 10, depicts vividly this transformation as follows: "She had known the company since the early days, when there was no International Department and Kingham (the present general manager) was no more than a keen goggle-eyed salesman."

Under the strong influence of the above concepts, the real transformation of administrative organizations due to the managerial revolution escaped the attention of the researchers. The traditional theory of organization was restrained within two poles based on entirely opposite philosophical perspectives: division and unity. Specialization and division of labor from the one side, and unity of authority and command, with their satellite concepts of policy unity, ends unity, rational reason unity, etc., from the other.

The research findings disclosed that in modern bureaucratic organizations there exist not only division of labor, but also division of authority, perspectives, expectations and responsibilities. In actuality, an organization seems to be more a federation of multiple systems of loyalties and expectations than a unitary structure. Not only division of labor, but also division of authority and rational reasoning--i.e., what is best for the organization--pervade the whole organization apparatus. The normal or average status of an organizational structure which has reached the stage of bureaucratization--i.e., it does not serve a dominating individual but an alleged mission--is that no one person has complete and indisputable authority over all persons and all subjects with which the organization deals.<sup>84</sup>

The principle of the division of authority<sup>85</sup> seems to be equally significant and important with the principle

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<sup>84</sup>Cases #22, 30, 38, 98, 99, 105, 220, 221, 223, 225, 230, 240, 261, 265, 266, 268, 285, 309, 311, 318, 323.

<sup>85</sup>Many authors make the distinction between authority--officially granted authorization to an organization functionary to act in the name of the organization --and power--actual capacity of a certain official to act, command or influence others acting in some organizational post. Instead of the above two terms, the following four terms are used in the present study: (1) Authority, which can be defined as the right of the incumbent of a certain organization position to act, command or advise others acting in the name of the organization granted by the organization; (2) Power, which can be defined as the capacity of certain individuals to act, command or influence others acting in the name of the organization derived from his personality, organizational and social status and interpersonal relationships; (3) Ability to act, which

of division of labor. The legalistic concept of authority resulted in the development of the traditional organization theory which views organization structure as a unitary one where the management on the top--individual boss, professional manager, or board of directors--is able not only to direct and control, but it is also able to know at any moment what happens at any place in the organization by pushing the buttons of the command circuit.

Although the absolute concept of authority has been questioned by sociologists and students of organization as well, and authority has been conceptualized as limited to the extent that it is accepted by the members of the organization,<sup>86</sup> the above thesis of limited authority has not questioned, however, the unitary form of authority.

The cases gathered from actual situations disclosed, however, that authority in a bureaucratic organization is not only limited and divided, but it is, moreover, multidimensional. The concept of limited authority, advanced by Barnard, views authority flowing from top to bottom and stopping at the point where it meets a from-bottom-to-top growing resistance. A comparison, however, of this concept with the analysis of case number 309 presented previously shows that the genesis and evolution of the authority supporting a certain organizational decision or action follows a different pattern. As mentioned above, the City Manager had to identify his choice with one or more of the systems of loyalties and expectations formed on the occasion of the reconsideration of the civil service classification. The selection of any alternative should result in certain groups supporting the City Manager's decision while other groups oppose it. Consequently, the effective power, i.e., the situational

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is the algebraic sum of power and authority ascribed to a particular individual and prescribing his acting potential, and (4) Situational ability to act, which can be defined as the ability to act in view of a particular situation conditioned by the configurations of the organizational power structure formed around this particular issue.

<sup>86</sup>Barnard, op. cit., pp. 92-94, 164-65; Pfiffner and Sherwood, op. cit., pp. 77-79; William B. Givens, Bottom-Up Management: People Working Together (New York: Harper and Brothers, 1949).

ability of the City Manager to act will not be a standard one, but it will be the algebraic total of the forces supporting and opposing him in regard to a given alternative solution. In this pluralistic concept of organization, the decision-maker does not convey authority from top to bottom and "push" it against growing resistance, but what he actually does is to try to find an alternative solution which enjoys or could achieve after preparation, "deals," persuasion, etc., maximum support with minimum resistance. His situational ability to act is the aggregate of many pieces of power and authority--limited, divided and multi-dimensional--collected and assembled through his identification with the various units of loyalties and expectations into which the "power-authority market" of the organization is divided.

The situational ability of an administrative decision-maker to act in a particular issue can be conceptualized as follows:

$$\begin{array}{c} \boxed{\text{Situational}} \\ \boxed{\text{Ability to Act}} \end{array} = \begin{array}{c} \boxed{\text{Decision-maker's}} \\ \boxed{\text{personal ability}} \\ \boxed{\text{to act, based on}} \\ \boxed{\text{his personal}} \\ \boxed{\text{authority, power,}} \\ \boxed{\text{and other rela-}} \\ \boxed{\text{tionships}} \end{array} + \begin{array}{c} \boxed{\text{Power and}} \\ \boxed{\text{Authority of}} \\ \boxed{\text{his support-}} \\ \boxed{\text{ers in this}} \\ \boxed{\text{particular}} \\ \boxed{\text{issue}} \end{array} - \begin{array}{c} \boxed{\text{Power and}} \\ \boxed{\text{Authority of}} \\ \boxed{\text{his opponents}} \\ \boxed{\text{in the same}} \\ \boxed{\text{issue}} \end{array}$$

Authority and power are not indestructible or undivided units, but they consist of many components. Because of the general character of the research, these components were not either analyzed or measured. The following list of components of the basis of authority discovered through the analysis of the cases is indicative rather than all inclusive:

1. Formal authority, i.e., jurisdiction to decide on certain subject-matters stated in the formal rules of



the organization.<sup>87</sup>

2. Informal authority, i.e., informally assumed jurisdiction on similar matters.<sup>88</sup>

3. Personality, i.e., ability to attract, understand, lead, persuade and manipulate people.<sup>89</sup>

4. Professional competence, i.e., ability to carry out and coordinate effectively the technical and the political or social tasks of his job on the basis of the assumed expectations.<sup>90</sup>

5. Social status, i.e., his position in the community power-influence network.<sup>91</sup>

6. Organizational status, i.e., his sociometric score in terms of influence exercised toward his superiors and subordinates and affiliations with the operating networks of loyalties and expectations.<sup>92</sup>

Figures 3 and 4 show schematically the genesis and evolution of authority<sup>93</sup> according to the two concepts analyzed above, i.e., the concept of limited but united authority and the concept of division of authority through the multiple systems of loyalties and expectations. For purposes of simplification and because of lack of sufficient information, the whole picture of the authority structure has been presented in very simple terms. In reality, the structure is more complicated because each group is subdivided also into sub-loyalties and sub-

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<sup>87</sup>Cases #7,11,36.    <sup>88</sup>Cases #17,22,23.

<sup>89</sup>Cases #107,229,240.

<sup>90</sup>Cases #2,247,255,300.

<sup>91</sup>Cases #23,185,273.

<sup>92</sup>Cases #91,92,103.

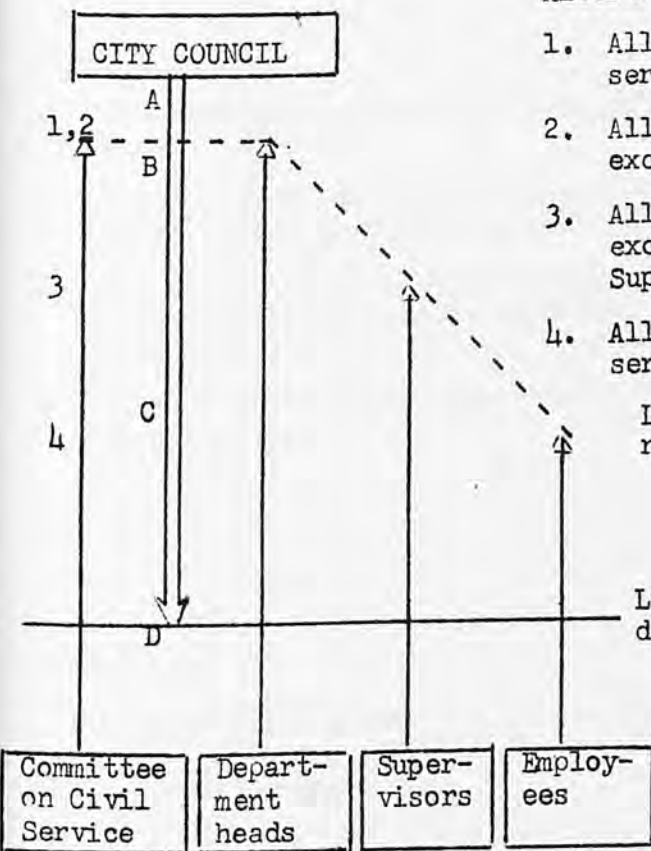
<sup>93</sup>The term is used here with its broad meaning, i.e., covering both power and authority in the distinction made previously (supra, pp. 137-138, n. 85).

## Alternatives:

1. All positions under civil service rules.
2. All positions under civil service except Department Heads.
3. All positions under civil service except Department Heads and Supervisors.
4. All positions exempt from civil service rules.

Line of maximum resistance

Line of maximum authority desire exposed by management

LEGEND

- AD = Authority desired by management  
 AB = Authority acceptable by all members  
 AC = "Effective" authority, i.e., authority finally accepted

NOTE: The above chart is presented for purposes of illustration only. It does not present, however, any kind of measurement of the intensity of reactions of the various echelons of the organization or the power and sociometric score of each of them. Since the real intentions of all of the participants are not stated in the case, some of them have been speculated on the basis of other known facts as, for example, the intention of the City Council to exempt all the positions is hypothetical.

FIGURE 3

THE CONCEPT OF LIMITED BUT UNITED AUTHORITY ON THE BASIS  
 OF THE DATA FURNISHED BY THE CASE NO. 309


Alternatives:

- A. All positions under Civil Service rules
- B. All positions under Civil Service rules except Department Heads
- C. All positions under Civil Service rules except Department Heads and Supervisors
- D. All positions exempt from Civil Service rules

Legend

- (+) Supporting group
- (-) Opposing group
- ( ) Neutral group

- 1. City Council
- 2. Committee for the expansion of Civil Service rules
- 3. Department Heads
- 4. Supervisors
- 5. Rank and file

 City Manager's inherent power-authority

City Manager's Situational Ability to Act

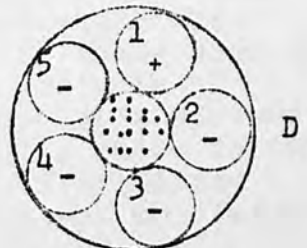
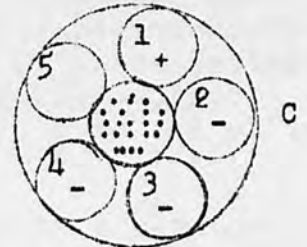
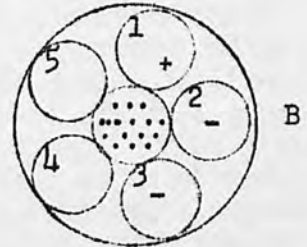
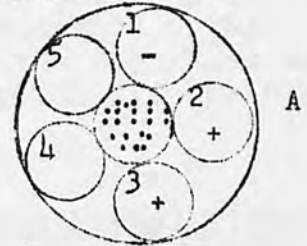


FIGURE 4

THE CONCEPT OF LIMITED AND DIVIDED AUTHORITY ON  
THE BASIS OF DATA FURNISHED BY CASE NO. 309

expectations and because the power intensity or score of each group is not the same but differs in magnitude and consequently in results. For example, the magnitude of the City Council's power may outnumber the power of all of the other hierarchical echelons and, consequently, the City Manager could identify himself with the loyalties and expectations of the City Council disregarding all the other groups.

Rationality in a pluralistic organizational structure. The concept of rationality advanced by economists and industrial engineers was based on the concept that organization is a unitary and monocratic structure with clear-cut and hierarchically arranged ends and a united authority source which top authority solves all the questions of values, priorities, and perspectives. This concept of rationality visualized organization as a closed system functioning in a linear fashion and resembling the industrial assembly line. Policy directives were poured from top to bottom, and through various production stations these policy blueprints were transformed into decisions and actions. The aggregate of all of these decisions and actions represented the total organization output which, divided by the total of means used, gave the efficiency rate of the system.

Because of the fact that authority in a bureaucratic organization is in reality divided, the assumed unity of ends and unity of criteria in selecting the appropriate means for the accomplishment of these ends do not exist in reality. There are as many criteria of "rational" choice as the number of the operating systems of loyalties and expectations. For example, which is the rational alternative in the case number 309 mentioned above? All and none of these alternatives can be claimed as rational. Every alternative has a "good reason" behind it, which reason can be spelled out in terms of advancing the interests of the organization. It can be argued that civil service regulations are good in protecting the "poor little fellows"; but the expansion to department head positions is anti-democratic, because it does not permit the City Council--the people's representatives--to control effectively through appointments those who actually run the government. Nevertheless, another argument could reverse the glass. It can be supported that if the department heads are exempt from civil service regulations the devil of politics will invade the city government,

and the whole apparatus of the government will suffer from inefficiency since the department heads are the levers of administration. It is obvious that a great number of logical and reasonable arguments can be stated in support of each alternative. Which is the rational one, i.e., the best in terms of advancing organization goals?

The idea of rationality advanced by economists and efficiency engineers suggests appeal to universal reason. Regardless of the philosophical question of whether or not such a kind of reason really exists it is accepted for purposes of analysis that the City Manager found a solution suggested by this universal reason. Does this mean that his crude finding has a practical value? Can he base his decision only on this finding without any other qualification? Evidently, not. He cannot escape the question of identification of his loyalties and expectations, which is associated with and dominates every behavioral activity in any social or organizational setting. A comparison of cases number 36 and 185, illustrates that the judge of the administrator is not universal reason. Other men, operating through systems of loyalties and expectations, judge him. In case number 36, for example, the City Manager has to choose between two operating systems of loyalties and expectations. The Mayor expected the City Manager to keep on the city's payroll his son-in-law, who was an inefficient superintendent of the Electric and Power Department. Another group of citizens outside the organization around the Junior Chamber of Commerce expected the City Manager to be loyal to them and endorse their program of good government. The case was simple and clear on what was a rational decision. The City Manager fired the inefficient superintendent, angered the Mayor and identified himself with the loyalties and expectations of the second group. The Mayor ran for re-election with one of the issues of his platform to hire a new City Manager. What saved the City Manager was not his appeal to the universal reason but the fact that the Mayor lost the election. Although it is not stated in the case, it can be speculated, however, that the City Manager might not follow the suggestion of rationality and efficiency if he anticipated that the Mayor could win the election.<sup>94</sup> In the final analysis the decision was made by an identification of that grid of loyalties and expectations which was anticipated to be the strongest in terms of power potential among the two competing grids of loyalties and expectations. In case number 185, on the contrary, the

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<sup>94</sup> Cf. cases #4, 23, 44, 65, 221, 236.

City Manager reduced the inefficient Police Chief to the grade of patrolman and on the issue of the consolidation of the Police and Fire Departments, he identified himself with the loyalties and expectations of the City Council and against the loyalties and expectations of the personnel of the Police and Fire Departments, the Fire and Police Association, and the older citizens. Although his decision was objective, logical and rational as it was proved in time, he failed to be identified with the proper system of loyalties and expectations, and finally he "resigned under pressure." In both cases the final criterion of success was not the efficiency or the objective rationality criterion, but the subjective identification with the "proper" system of loyalties and expectations.

Simon, instead of the appeal to universal reason, suggests reference to "the empirical laws" which are relevant to the question of rational behavior in given situations.<sup>95</sup> However, returning to the case number 309, this criterion was found also inadequate to guide the City Manager to make the proper decision, because these empirical laws are not always known. As the researcher stated, "He reasoned that there is a wide difference of opinion among experts as to which positions of the management team should be exempt."

The analysis presented above disclosed that the organization man operates in a human environment of complex grids of loyalties and expectations which are very often overlapping or conflictant with each other. These systems of loyalties and expectations overlay power and influence networks existing in the organization and its environment.

What is good or what is the best for the interests of the organization is not designated either by a set of clear-cut and objective organization goals and policy rules or by the free will of the decision-maker himself. He has to take into account the power structure of the organization as it is manifested through the various grids of loyalties and expectations.

Considering these forces does not mean that the decision-maker merely canvasses opinions of other persons. The decision-maker has his own image of the organization, his own set of values and beliefs and his own opinion of

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<sup>95</sup> Simon, op. cit., pp. 82-83.

what is the best or the most rational in terms of advancing organizational goals.<sup>96</sup> Operating, however, in a social setting he realizes that he cannot project his own ideas and thoughts, and he cannot clothe these with the mantle of an organizational decision unless he has solicited and achieved adequate authority support.<sup>97</sup> In other words, this means that the decision-maker realizes that his decision must be placed somewhere between the decision which "he likes" and the decision which the "others like."<sup>98</sup> This illustrates the compromising character of organization decision-making. The term compromise is usually viewed as something bad or unethical, a concession at the expense of the real interests of the organization. This may be true in a number of cases.<sup>99</sup> However, compromise is viewed in this study in the broader sense of "averaging" and "socializing" administrative behavior. As stated previously, there may exist many opinions or perceptions about what is good or what advances best the interests of the organization. Under a hierarchical structure the opinion or perception of the top is considered "legally" the right one. In the stage of organizational development where an identified individual or group owned and controlled an organization, this legal right might coincide with the real right.<sup>100</sup> But this hardly can be assumed for the modern bureaucratic organizations where ownership and authority have been diffused and organizations have become more social institutions serving an alleged mission rather than the interests of an individual or group.<sup>101</sup> Under these circumstances the democratic principle according to which the wisdom of many is definitely superior to the wisdom of one is applicable.<sup>102</sup> Although this principle gains more

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<sup>96</sup>Cases #2,11,56,91,92,107,177.

<sup>97</sup>Cases #99,105,220,229,309. <sup>98</sup>Cases #30,45,99,105.

<sup>99</sup>Cases #23,99,221,285,304. <sup>100</sup>Supra, p. 136 n. 83.

<sup>101</sup>Pfiffner and Sherwood, op. cit., p. 88, state that the Chairman of the General Motors Corporation in 1958 owned about one-hundredth of one per cent of the company's stock and the entire Board of Directors of the Standard Oil Company of New Jersey possessed only about one-tenth of one per cent of the company's stock.

<sup>102</sup>Supra, p. 132 n. 76. Waino W. Soujanen, "Leadership, Authority, and the Span of Control," Advanced Management, 23:17, September, 1957; Andrew Gunder Frank, "Goal

recognition day by day in the realm of organization and management, and the compromising character of organizational decision-making is one of its manifestations, maybe years have to pass until this democratic principle is formalized and institutionalized in the area of organizational administration as has been achieved in the area of political government.

The above analysis disclosed that an "average" decision-maker in an organizational setting tries to reconcile and balance three pairs of influences:

1. His personal ideas about what ought to be done with the ideas of "others" concerned with his decision.<sup>103</sup>
2. His personal interpretation about what "advances the interests of the organization" with the interpretations of the "others" on the same subject-matter.<sup>104</sup>
3. His personal interests in the issue under consideration with the personal interests of "others." The term "personal interests" must be viewed in a very broad sense. It does not necessarily mean either conspiracy or self-aggrandizement at the expense of the real objective interests of the "organization." Although this may be the case,<sup>105</sup> in a broader sense, however, the personal interests of the decision-maker may be his intrinsic satisfaction in making or initiating a "good" decision,<sup>106</sup> the glory of a "big shot" who solves problems,<sup>107</sup> the protection of the interests of his department versus the interests of other departments,<sup>108</sup> the satisfaction of the "only one who thinks right,"<sup>109</sup> his relief from disliked duties,<sup>110</sup> etc.

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Ambiguity and Conflicting Standards: An Approach to the Study of Organization," Human Organization, 17:8-13, Winter, 1958.

<sup>103</sup>Cases #4,45,65,99,105.

<sup>104</sup>Cases #7,105,187,285,309,318.

<sup>105</sup>Cases #22,23,162,221,284.

<sup>106</sup>Cases #54,91,92,177,245. <sup>107</sup>Cases #240,266.

<sup>108</sup>Cases #4,19,177,223,267.

<sup>109</sup>Cases #2,91,92,177,268. <sup>110</sup>Cases #7,225,265.



The above three pairs of influence which condition organizational decision-making must not be viewed as either unrelated and necessarily conflicting with each other or developed in flux. As mentioned previously, because of the fact that these influences originated from the same common sources, the society and the organizational sub-society; and because they are formulated in a state of continuous interactions, they tend to coincide to a large or small degree.

This means that a common area might exist where all the parties involved in a decision can agree that the alternative or alternatives included in this area are considered as generally advancing the interests of the organization in accordance with all the versions of rational choice associated with the various grids of loyalties and expectations.

The common areas of loyalties and expectations possess certain characteristics of stability and continuity and to this end they resemble to some extent the concept of the one best or rational choice, but they differ from the latter on the following three parts:

1. They are relative and not absolute, and they are subject to change. What is good or best is conditioned by social values which differ from time to time or from place to place.<sup>111</sup>

2. They are "statistically" formulated. By "statistically" is meant that they represent averages, i.e., products of many individually different opinions where extremes offset each other, and the middle items are or represent the average.<sup>112</sup>

3. They are sub-divided into zones of varying intensity. For example, in case 309 mentioned above, the concept of what is a rational solution in the problem of civil service classification presents varying degrees of acceptance and rejection. The proposition that all positions should be exempt resulted in a unanimous rejection among the city's staff, while the resistance became less effective when the proposition was modified in order to exempt only a few positions.

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<sup>111</sup>Cases #4, 37, 185, 220, 225, 300.

<sup>112</sup>Cases #30, 45, 99, 230, 246, 318.

Consequently, the decision-maker in an organizational setting faces two possibilities when he has to make a decision:

1. The decision which "he likes" lies within the common area of acceptance. In this case he does not face any problem of identification between conflicts of loyalties and expectations, but his only task is to carry out successfully all the technical details of the implementation of his decision.<sup>113</sup>

2. The decision which "he likes" is outside of this common area of acceptance and lies in any of the zones of varying intensity of acceptance or rejection. In this case he has to select one of the following three alternatives:

- a. To make his decision according to his desires and disregarding what the others think.<sup>114</sup> He can do this under three conditions: First, when the intensity of his desires (core values) is so strong.<sup>115</sup> Second, when this does not

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<sup>113</sup>Cases #42,103,235,244,245. Indeed, not all the decisions are products of inter-personal conflicts. A great number of decisions are not "political" but are "technical" in nature in the sense that the only problem which the administrator faces is to find a "good" solution. In all these cases the behavioral model tends to coincide with the classical model because of the fact that the behavioral model is based on the unitary value-ends structure of the solitary decision-maker (cf. cases #2,19,42,103,235,272). The rationality of the decision can be analyzed in terms of relationships between value-ends desired, means used and results achieved. The "goodness" of the decision is based on the quality of the value-ends guiding the decision-maker (cf. cases #2,19,23,235). In this respect, the importance of the various normative models is obvious. The stress for objectivity, factual analysis, political neutrality, etc., intends to infuse social or institutional values into the personal value structure of the decision-maker in order that his decisions be guided by institutional norms and not by personal preferences (Barnard, *op. cit.*, p. 188). Toward this direction, the normative models perform a very similar function with the policy rules and can be viewed as the "super-structure" within which policy is developed.

<sup>114</sup>Cases #7,23,36,107,177,240,285.

<sup>115</sup>Cases #23,36,107,177.

endanger directly or indirectly his personal or organization status.<sup>116</sup> Third, when the resistance cannot inhibit the effective implementation of his decision.<sup>117</sup>

- b. To try to bring together the most powerful of these various centers of influence in order to form a common area of acceptance and support around the alternative which he thinks is the best. In order to achieve this end he can use many devices and manipulations which can produce this effect.<sup>118</sup>
- c. To make a compromising decision satisfying most and dissatisfying least, the parties involved in a given issue. This seems to be a "popular" solution in the modern pluralistic bureaucratic organizations.<sup>119</sup>

Rationality in organization decision-making. A "good" decision in an organization is considered one which makes everybody happy, including the decision-maker. The possibilities, however, of such decisions are very limited, because the very structure of organization is based on conflicting systems of loyalties and expectations overlaying both the internal affairs of the organization and the relationships with its environment.<sup>120</sup> Consequently, a more moderate aspiration dominates decision-making in the modern bureaucratic organizations. This is maximum of acceptance with minimum of dissent.<sup>121</sup>

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<sup>116</sup>Cases #221,308. <sup>117</sup>Cases #23,36,177,220,225.

<sup>118</sup>Cases #17,36,220,223,229,323.

<sup>119</sup>Cases #220,222,223,230,246,309. Almost 50 per cent of all the decisions exhibit this spirit of compromise in one way or another. It must be taken into account, however, that more than 70 per cent of these cases were collected from local government organizations where politics and political considerations influence strongly Administrative Behavior. Cf., however, case #230.

<sup>120</sup>Supra, p. 132.

<sup>121</sup>Cases #105,222,223,229,230,313. Paul Appleby, Big Democracy (New York: Alfred A. Knopf, 1949), p. 88, speaking about Public Administration, stated that a good administrative decision is "one to which a sufficient

The classical concept of rationality was limited to a sole criterion of decision-making evaluation. This criterion was efficiency measured in terms of means-ends analysis and quantitative scoring. The research findings disclosed that in the pluralistic structure of the modern bureaucratic organizations the criteria of goodness, fitness, effectiveness, rationality are multiple and pluralistic also. The analysis of the cases gathered disclosed that as a rule<sup>122</sup> organizational decision-makers seek to accomplish simultaneously the following five objectives in their decisions:

1. "Good" decisions according to their own judgment. In other words a decision in accordance with their personal interests, values, beliefs, estimate of the situation, and philosophy on what is good or what advances the interests of the organizations.<sup>123</sup>

2. Decisions deserving the recognition of their superiors as "good" decisions, i.e., decisions keeping pace with the superiors' interests, values, beliefs and instructions.<sup>124</sup>

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minority does not sufficiently object." The research findings validated this statement, but a further clarification seems necessary. Acceptance or rejection are not counted by a per capita but by a per power-influence score. The dissent of the vice-president is far more important to an organizational decision than the dissent of the janitor. This indicates the importance of situational-hierarchical authority as well as personal-sociometric power in organizational decision-making.

<sup>122</sup>"As a rule" is stated in order to emphasize that in the social sciences the "laws" are statistical in nature. This means that they apply to the majority of the cases but not to all or any of them individually. The patterns of social behavior are not exact replicas of each individual action but "averages" or "typical values" of the mass of them. B. J. Mandel, Statistics for Management (Baltimore: Dangary Publishing Co., 1956), pp. 10-11.

<sup>123</sup>Cases #2,11,56,91,92,107.

<sup>124</sup>Cases #54,172,241,268.

3. Decisions acceptable by the people who are affected by them as well as by those who are charged with their implementation. In other words decisions achieving maximum acceptance and minimum dissent among those who are able by virtue of their position in the organizational or environmental power-influence network to criticize the decisions and inhibit implementation or to influence the organization status and advancement of the decision-maker.<sup>125</sup>

4. Decisions which "look good" in the light of the decision-maker's environment.<sup>126</sup>

5. Decisions which protect the decision-maker from further troubles in case of ineffectiveness, growing reaction, etc. by providing "a good reason" for justification or excuse.<sup>127</sup>

#### Character of Organizational Decision-Making

The traditional school in organization theory inspired by the classical concept of rationality, views decision-making as a mechanistic approach to problem solving through the collection of information, scrutiny and evaluation of possible alternatives, and selection of the solution which advances best the interests of the organization in terms of given goals.

The critical analysis of the above concepts and the research findings presented in the previous pages have outlined already the real character of organizational

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<sup>125</sup>Cases #19,223,225,246,273.

<sup>126</sup>Cases #104,105,220,221,225,226,257,266,323. The term environment is used here in a broader meaning embracing all persons not included in the proposition No. 3 and is divided into inner and outer environment. The inner includes members of the organization not affected by the decision but "observing" its development. The outer environment is referred to "observers" non-members of the organization.

<sup>127</sup>Cases #65,78,114,226,229,272,273,309,314,318,319.

decision-making in actual situations.

According to this analysis the characteristic features of organizational decision-making are:

"Muddling through" conflicting values, interests, goals and perceptions. The organizational decision-maker carries on his job by muddling through multiple systems of loyalties and expectations which very often conflict with each other. He has to use to a great extent "office politics," human engineering and maneuvering in order to overpass centers of resistance, prepare acceptance of his decisions, or find formulae and solutions acceptable by all the fighting camps.<sup>128</sup> In spite of the oversimplified picture of the decision-maker developed by the classical school of rationality which visualizes the good decision-maker as a good compiler of information and a good computer of the anticipated consequences for each alternative, the research findings disclosed that the type of administrator who seems to be successful in an organizational milieu is not the type of the professor of mathematics who is able to develop formulae on the most efficient combination of means and ends but that of an organizational politician who is capable of making decisions which will achieve maximum acceptance with minimum dissent.<sup>129</sup>

Deliberating with doubt and struggling with uncertainty. The development of a comprehensive list including all the possible alternative courses of action and their consequences is not feasible in most of the cases for the following reasons:

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<sup>128</sup>Cases #7,17,78,91,98,99,185,220,223,280,309,318,323. A current reading also states "In business, itself, the desire for profits may conflict with other desires: for control, power, prestige, and the like. The ubiquitous conflict between professional management and stockholders on the issue of dividends vs. growth, for example, requires continuous resolution." The Editors of Fortune, The Executive Life (Garden City, N.Y.: Doubleday and Company, Inc., 1956), p. 166; Soujanen, loc. cit.

<sup>129</sup>Cases #4,78,91,229,273,281. Frank, op. cit., p. 11.

1. Lack of sufficient time for the administrator to make a thorough analysis of the problem because of his work-load,<sup>130</sup> urgency of the problem,<sup>131</sup> influence of external pressures,<sup>132</sup> etc.

2. Lack of information either because it is not available<sup>133</sup> or the subordinates and information suppliers are not willing to give the true facts.<sup>134</sup>

3. Limitations of the human mind which prevent achieving a complete perception of the environmental situation. Even in cases where the administrator himself is the creator of the problem, he often does not have a complete picture of the underlying causes.<sup>135</sup>

4. Computational limitations of the human mind to count and evaluate all the possible alternatives and their outcomes in complex problems.<sup>136</sup>

The identification and evaluation of the pros and cons of each alternative are not feasible for the reasons mentioned above, and because in many cases favorable and unfavorable or desirable and undesirable consequences go together.<sup>137</sup>

The evaluations of each alternative in terms of organizational goal accomplishment and the calculation of an overall score for each alternative are not feasible also for the following reasons:

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<sup>130</sup> Robert B. MacLeod, "Confessions of an Ex-chairman," American Association of University Professors Bulletin, 40:424-31, 1954.

<sup>131</sup> Cases #191, 255, 267.

<sup>132</sup> Cases #91, 99, 304.

<sup>133</sup> Cases #116, 255, 310, 315, 318, 319.

<sup>134</sup> Cases #225, 246, 315, 319. <sup>135</sup> Cases #104, 227, 323.

<sup>136</sup> Cases #187, 250, 309, 318; Charles Hitch, "Operations Research and National Planning--A Dissent," Operations Research, 5:718, October, 1957.

<sup>137</sup> Cases #114, 187, 222, 250, 251, 255, 315, 318, 319.

1. Most of the alternatives are not simple in their consequences. For example, some of them promise greater yield but more uncertainty.<sup>138</sup> Some of them favor certain interests but not others, etc.<sup>139</sup> Which is more important: fire protection or law enforcement? economy or better public relations?

2. The development of an overall score presupposes the existence of a set of criteria and values articulated in such a hierarchical way as to provide a final value-criterion which determines the priority and importance of each consideration involved. As stated previously, such a unity and hierarchical order of the values and goals which condition the organizational activities do not exist in reality.<sup>140</sup>

In all of the above cases organizational decision-makers realize that both the informational foundation of their decisions and the computational part of their deliberations are to a small or great degree based on insufficient, doubtful and incomplete data.<sup>141</sup> Consequently, uncertainty<sup>142</sup> and risk<sup>143</sup> undermine their decisions, and their problem is to find ways and means to counterbalance the unfavorable consequences which are very often inseparable from the favorable results of the alternatives selected.<sup>144</sup>

Clothing with reason. As mentioned previously, organizational decision-makers cannot formally base their decisions on personal tastes or feelings, but they must logically justify them in terms of advancing the interest of the organization.<sup>145</sup>

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<sup>138</sup>Cases #191, 240, 266, 272, 318.

<sup>139</sup>Cases #99, 163, 273, 278, 323. <sup>140</sup>Supra, pp. 123, 128-9.

<sup>141</sup>Cases #225, 246, 315, 319.

<sup>142</sup>Cases #114, 191, 255, 272, 310, 319.

<sup>143</sup>Cases #45, 114, 191, 221, 240, 319.

<sup>144</sup>Editors of Fortune, op. cit., p. 163, point out very vividly this problem of uncertainty as follows: "The business executive is by profession a decision-maker. Uncertainty is his opponent. Overcoming it is his mission."

<sup>145</sup>Cases #91, 222, 266, 323.



This requirement of reasonable justification expressed in "socially acceptable" terms<sup>146</sup> is very often incompatible with the other two conditions of organizational decision-making, i.e., muddling through and deliberating with doubt. In case number 323, for example, the legislation director of the Federation of Women's Service Organizations had to muddle through conflicting interests, loyalties, and expectations in order to support a pending Congressional bill on outdoor advertisement. She was not able to perceive clearly all the possible alternatives which she could consider or to develop an accurate and precise prediction of the pros and cons of the various alternatives taken under consideration. Finally, when she decided to "pass" a written report to the Congress, she clothed it with an argument fitting the requirements of reasonable justification as follows:

Since very often, letters of information and various bits of research were prepared and distributed without the approval of the president, it was reasonable to have the report duplicated and distributed with no question asked.<sup>147</sup>

It is not enough for the decision-maker to find a good reason in order to clothe his present decision. He also needs a "good and reasonable" excuse in case that either his calculations or unpredictable environmental reactions will not produce the anticipated outcome. This "good excuse" must be invented in advance and it is an integral part of his reasoning of choice.<sup>148</sup> In case that such an excuse cannot be invented, the decision-maker prefers very often to reduce his goal accomplishment aspirations rather than to be exposed to an unpredictable misfortune for which he will not have a good excuse.<sup>149</sup>

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<sup>146</sup>Cf. supra, pp. 120,151. The term "socially acceptable" is used to denote reasoning based on axiomatic values or premises acceptable by given society at a given time as true and fundamental. They are derivatives of a certain cultural milieu and not products of a super-cultural universal reason.

<sup>147</sup>Case #323, p. 3.

<sup>148</sup>Cases #91, 235,285,318.

<sup>149</sup>Cases #187,230,235,304,306,318.

## Administrative Rationality Refined

Organizational decision-making was found to be a social process, or a social art, in the sense that it is conditioned by the power structure and the values dominating the organization and its surrounding world. It is also a technical process, or an engineering art, in that a synthesis of a multitude of heterogeneous, and often conflicting, elements is attempted in a conscious and deliberate way rather than a random and spontaneous one.

The organization decision-maker dealing with complex situations of the real world faces a behavioral dilemma between his limited time, means and perception abilities to analyze and evaluate the whole spectrum of the foundations and projections of the consequences of the various alternative courses of action opened to him and a set of normative imperatives which, although often conflicting each other, demand a degree of perfection which clashes with the apparent reality viewed in human terms.

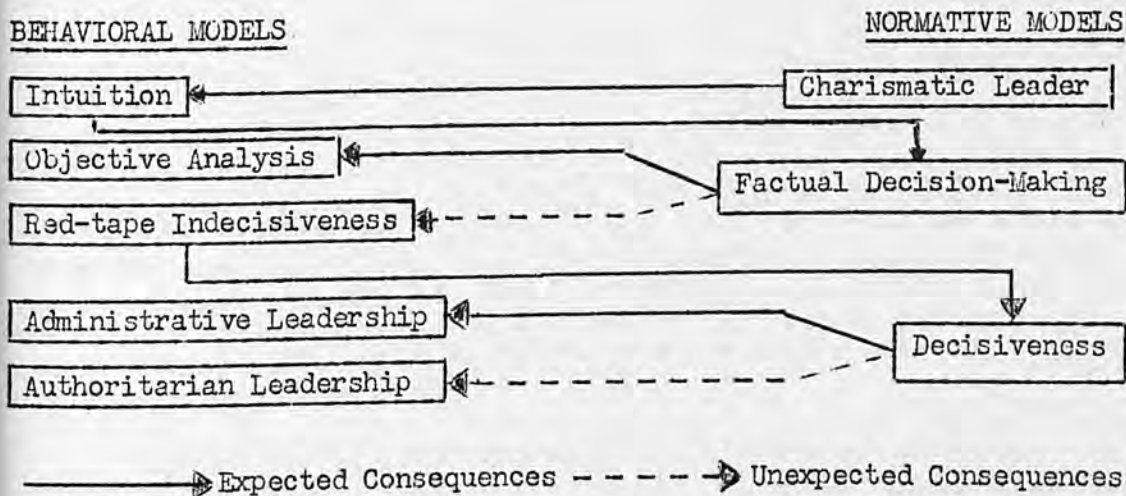
The classical school of rationality attempted to solve the above dilemma through a simplification of the normative models. It approached organization not only as an integrated organic body but also as an instrumental apparatus functioning with linear consistency and directed toward the accomplishment of a set of clear-cut organization goals hierarchically articulated and postulated deductively from the grand mission of the organization. Under such a clearly integrated goal structure, the role of the decision-maker as an agent of the organization was postulated also to be instrumental and detective. His instrumental role was to serve given organization goals. His detective role was to discover the one best solution predetermined by the means-ends relationship. As amplified previously, this simplification of the normative models and their integration to the classical model of rationality were achieved at the expense of reality and through the ignorance of basic human and organizational factors which comprise the social and psychological part of the decision-making process.

The school of behaviorism, on the other extreme, attempted to solve the decision-maker's dilemma through a simplification of the behavioral models by clarifying and crystallizing: "only those factors that are most closely connected with the decision in cause and time."<sup>150</sup>

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<sup>150</sup> Simon, Administrative Behavior, p. 82; Supra, p.109.

Both schools failed to understand, however, the difference between normative and behavioral models and failed to penetrate into the inner spectrum of the dynamic interplay between these two categories of models, as well as to perceive clearly the different but supplementary roles which each of them plays in the human life, where the amelioration of behavioral models is attempted by introducing and forcing new normative models. The new normative models produce, however, anticipated consequences--amelioration of the behavioral models--as well as unanticipated consequences --new behavioral models which can be either good or bad. Through such a metabolism of normative and behavioral models, human society evolves gradually and continuously into new forms of life. This interplay can be illustrated as follows:



Because of this continuous evolution, ethical norms and behavioral factors are changeable and relative to time and place.<sup>151</sup> The right choice, lying between normative imperatives and behavioral patterns prevailing in a certain place and time, is not defined by a universally acceptable reasoning but by relative terms under constant change.<sup>152</sup> The solitary decision-maker cannot change or simplify either the normative or the behavioral patterns of decision-making. He can, however, contribute to a small or great degree to their change through his decisions by which evolution is gradually promoted.<sup>153</sup> Under these circumstances,

<sup>151</sup>Cases #42,220,225,281,304.

<sup>152</sup>Cases #37,185,225.

<sup>153</sup>Cases #11,65,91,92,220.

the question, what is administratively a good or rational decision, has been raised. The classical school of rationality developed such a rigid, grandiose and unrealistic model that only a few decisions can meet its standards. Consequently, the majority of administrative decisions are bad or irrational. The school of behaviorism approached the problem with a more pedestrian view. It realized that the decision-maker is not a superman and he is subject to a multitude of social and psychological influences. It gradually became skeptical even with its modified concept of "bounded rationality."<sup>154</sup> It viewed the decision-maker as a satisfier instead of an optimizer.<sup>155</sup> Nevertheless, the school of behaviorism did not move away from the basic conceptual scheme of the classical school of rationality. The means-ends dichotomy remains its foundation. The only change in its attitude toward the problem of goodness in administrative decision-making is that it replaces the one best solution with any satisfying solution empirically or randomly selected. Generally, it tries, instead, to avoid solving the problem of what is a good decision and how it can be selected. Its method is analytical. Its formula: Try to identify good decisions in terms of particular goals. Study the empirical factors which are relevant in cause and time to the selection of the best means in accomplishing these goals. Formulate the "empirical laws" for this particular category. The school of behaviorism believes also that a small percentage of organizational decisions can be expected to be rational.

In spite of the pessimistic attitudes of both schools about the possibilities of rational administrative behavior, the research findings disclosed that organizational decision-making is a conscious and deliberate process developed through sets of syllogisms which are based on reason in the ordinary meaning of the term. The foundations of this reasoning, however, follow different patterns and methods from those prescribed by the common conceptual scheme of these two schools. It was found, moreover, that administrators have developed a system of standards of evaluation<sup>156</sup> and an arsenal of simplified methods of choice<sup>157</sup> which not only reduce the complexity of the problem of choice but make "good" decisions in view of the

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<sup>154</sup> March and Simon, op. cit., pp. 140-41; Simon, Administrative Behavior, pp. xxxv, 38-41, 80-81, 240-44.

<sup>155</sup> Ibid., pp. xxiv-xxvi.

<sup>156</sup> Supra, pp. 151-52.

<sup>157</sup> Infra, pp. 194-95.

"law of the situation."<sup>158</sup> For purpose of identification, this body of norms and methods has been labeled "administrative rationality." The basic characteristic features of this concept of administrative rationality are the following:

1. Its purpose is to find a practical and workable solution. No matter how rational is a decision, in terms of means-ends evaluation, if it does not work, it is administratively bad (ineffective).<sup>159</sup>

2. This workable solution must be the best. Since no universal super-criterion exists to define what is the best, this is defined in relative terms (a better decision through consecutive "idea bids"). In a pluralistic structure a model decision is one which (a) maximizes support and minimizes dissent (muddling through), (b) eliminates risk and responsibility (open door of retreat), and (c) is justifiable in terms of advancing organization goals (clothing with reason).

3. Methodologically is dominated by a synthesizing approach. The decision-maker is not a "world explorer" searching the globe for the "buried treasure" of the one best solution. His method is (a) selective (he works on a limited inventory of alternatives brought to his attention through the processes of human interactions<sup>160</sup>), (b) additive (he uses previously accumulated knowledge and experience<sup>161</sup>), (c) pragmatic (through consecutive improvements<sup>162</sup>), and (d) synthetic (he must reconcile and articulate together conflicting or opposing factors<sup>163</sup>).

4. This synthesis follows a pattern of averaging and balancing contradicting elements in a method similar to that of computing moving averages.<sup>164</sup> Normative imperatives and behavioral patterns are balanced on the basis of

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<sup>158</sup>Cases #17,91,92,220,221; March and Simon, op. cit., p. 139.

<sup>159</sup>Cases #4,37 (cf. 185),225,304.

<sup>160</sup>Cases #17,30,38,54. <sup>161</sup>Cases #4,225,240,255,308.

<sup>162</sup>Cases #17,227,242,281.

<sup>163</sup>Cases #30,187,222,315.

<sup>164</sup>Herbert Arkin and Raymond R. Colton, Statistical Methods (fourth edition; New York: Barnes and Noble, Inc., 1958), pp. 46-47.

the relative trends prevailing in time and place. A decision is administratively rational when it coincides with the best moving average in terms of time and place.<sup>165</sup>

5. The application of the administrative rationality concept produces acceptable and workable decisions but this does not mean either good or bad decisions. The quality of the averaging or compromising decisions depends upon the kind of factors synthesized, the quality of "bids" made and the social, institutional, or personal values reflected on these bids. However, certain social values such as equality, justice, and objectivity, and the fact that an organization is a pluralistic structure where authority is limited and divided place serious restraints upon the compromising character of decision-making and the unlimited "bargaining" of personal interests. These restraints are reinforced by normative models of good administrative behavior, such as factual analysis, staff work, and objectivity, preached by both theorists and practitioners. These normative restraints enter the averaging calculations through the variable of clothing with reason, compelling the compromising solution closer to the mean of these "good" norms rather than to the mean of the "bad" interests. For this reason, although normative models deviate to a small or great degree from their behavioral counterparts,<sup>166</sup> and cannot be used as objects of empirical analysis, they perform, however, an important function toward the amelioration of the behavioral models.<sup>167</sup> In this direction, the classical concept of rationality, although unrealistic and inapplicable to complex problems, it exercises a useful influence toward objectivity and factual decision-making.

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<sup>165</sup>Cases "9,37 (cf. 185), 38,65.

<sup>166</sup>George Filipetti, Industrial Management in Transition (Chicago: Richard Irwin, 1946), p. 120, points out the deviations between normative and behavioral models in the area of management.

<sup>167</sup>About the importance of normative models in social sciences, cf. Northrop, *op. cit.*, pp. 273-77, 328-47; Harold H. Titus, Ethics for Today (second edition; New York: American Book Company, 1954); Nicholas S. Timasheff, Sociological Theory: Its Nature and Growth (revised edition; New York: Random House, 1957), pp. 69, 71, 126, 156, 248, 253-54, 305.

### III. DEVELOPMENT AND FORMULATION OF ORGANIZATIONAL DECISIONS

#### The Conventional Approaches

In the current readings on the theory and practice of organizational decision-making, a great variety of descriptions of the process can be found. These numerous versions of decision-making are confined within two extremes, the intuition version and the rationality model.

The intuition version. Many people practicing the art of administration claim that they possess an internal power by virtue of which they can foresee right and select the best solution in problems where other people are lost. In spite of the fact that such a claim seems to be in sharp contrast with the values and standards of our era dominated by a strong tendency toward scientism and demystification,<sup>168</sup> the idea of intuitive decisions is widely spread among organization men and particularly among the managerial echelons.<sup>169</sup> A recent survey of a

<sup>168</sup>Blau, *op. cit.*, pp. 14-15; William H. Whyte, Jr., The Organization Man (Garden City, N.Y.: Doubleday and Co., Inc., Doubleday Anchor Books, 1956), pp. 26-30; cf. *supra*, pp. 4, 22-23.

<sup>169</sup>The term intuition is originated from the Latin verb intuere, which means to look at. Virginia Burden, The Process of Intuition (New York: Greenwich Book Publishers, 1959), defines intuition as "the inner, instantaneous realization of a truth that otherwise might have been arrived at only by means of a long, involved reasoning process." Drever, *op. cit.*, p. 142, gives another definition according to which intuition is "immediate perception or judgment, usually with some emotional colouring, without any conscious mental steps in preparation; a popular rather than scientific term." The latter definition is in accordance with the modern trends in psychology to repudiate the whole concept of intuition. In philosophy, however, intuitionism has reached an eminence with the works of Spinoza, Kant and Bergson. According to Funk and Wagnalls Standard Reference Encyclopedia, p. 4961, "The concept of intuition apparently arose from two sources: the mathematical idea of an axiom -- a self evident proposition which needs no proof -- and

number of top executives disclosed that the majority of them "are remarkably candid about their own inability to analyze the act of decision." One of them pointed out, "If a vice president asks me how I was able to choose the right course, I have to say, 'I'm damned if I know.'" Another one more flatly stated, "Whenever I think, I make a mistake."<sup>170</sup> The research findings disclosed also that many decision-makers based their decisions on an "internal feeling" or "hunch" about the right choice.<sup>171</sup>

A more careful analysis of a number of cases disclosed, however, that this "internal power" was not either genuine or mystic. First, the claim of supernatural powers reflects the glamour of the "great man" theory in leadership which still magnetizes many people who are proud to claim such qualifications. Second, what sometimes seemed to be a nebulous and mystic internal force, it became evident was the resultant of many other forces or faculties stored in the inner world of the decision-maker, which forces were neither mystic nor beyond human perception and cognition. Although they may be used in a rather unconscious way, they can, however, be discovered and identified. Some of them are from previous experience on similar cases, education and training, professional or technical competence, or self-confidence based on professional success, etc.<sup>172</sup> Third, the mystification of these forces has been facilitated by the limited approach to analysis of the abilities of the human mind for problem solving developed by economists and efficiency engineers who confine their thinking to the idea that problem solving means only quantitative computations in a linear fashion, resembling the model of the industrial assembly line.<sup>173</sup>

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the mystical idea of revelation--truth which surpasses the power of the intellect." A contemporary philosopher, F. S. C. Northrop, The Logic of the Sciences and the Humanities (New York: Meridian Books, Inc., 1959), pp. 36-49, 77-100, places intuition in direct relationship with empiricism based on immediate apprehension.

<sup>170</sup> Editors of Fortune, op. cit., pp. 164-65.

<sup>171</sup> Cases #240, 316, 318, 319.

<sup>172</sup> Cases #240, 318.

<sup>173</sup> Supra, pp. 127-28, 154; infra, pp. 179 ff.



The rationality model. The foundations of this model have been analyzed quite extensively in the previous pages. According to this model the process of organizational decision-making follows the procedural steps depicted in Figure 5.

The continuum of models. Between these two extreme models there is a continuum of versions of organizational decision-making, all including to a greater or smaller extent both intuitive and rational (factual) elements. This distinction seems to be compatible with the conventional concept of the human nature according to which human beings are both rational and irrational<sup>174</sup> and the empirical observation of decision-making which discloses that deliberation is based on data which are divided into secure, calculable, and predictable, and into data which leave room for insecurity and are not subject easily to calculations.<sup>175</sup>

#### The Question of an Empirical Pattern

In spite of the fact that intuitive and factual elements can be found in different proportions in the

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<sup>174</sup>Supra, p. 102.

<sup>175</sup>Supra, pp. 154-5. Both intuitive and rational (factual) decision models can be either empirical, i.e., how decisions are actually made, or normative, i.e., how decisions ought to be made. Cf. supra, pp. 157-61. A behavioral model is in actuality the empirical synthesis of intuitive and factual normative models brought together through the process of intra-personal and inter-personal interactions conditioning the decision-making process. "Good staff work" is a normative factual model. "Executive decisiveness" is a normative intuitive model. In case #7 the behavioral model was "bad" in terms of effective synthesis of the above two models. In case #42, on the contrary, such a synthesis was effective. Good behavioral models are developed when decision-makers have the ability to select and synthesize effectively normative models and when a suitable variety of such models exists either in the personal repertory of the decision-maker (cases #2, 36, 92, 172), or in the norms inventory of the organization (cases #177, 241, 249).

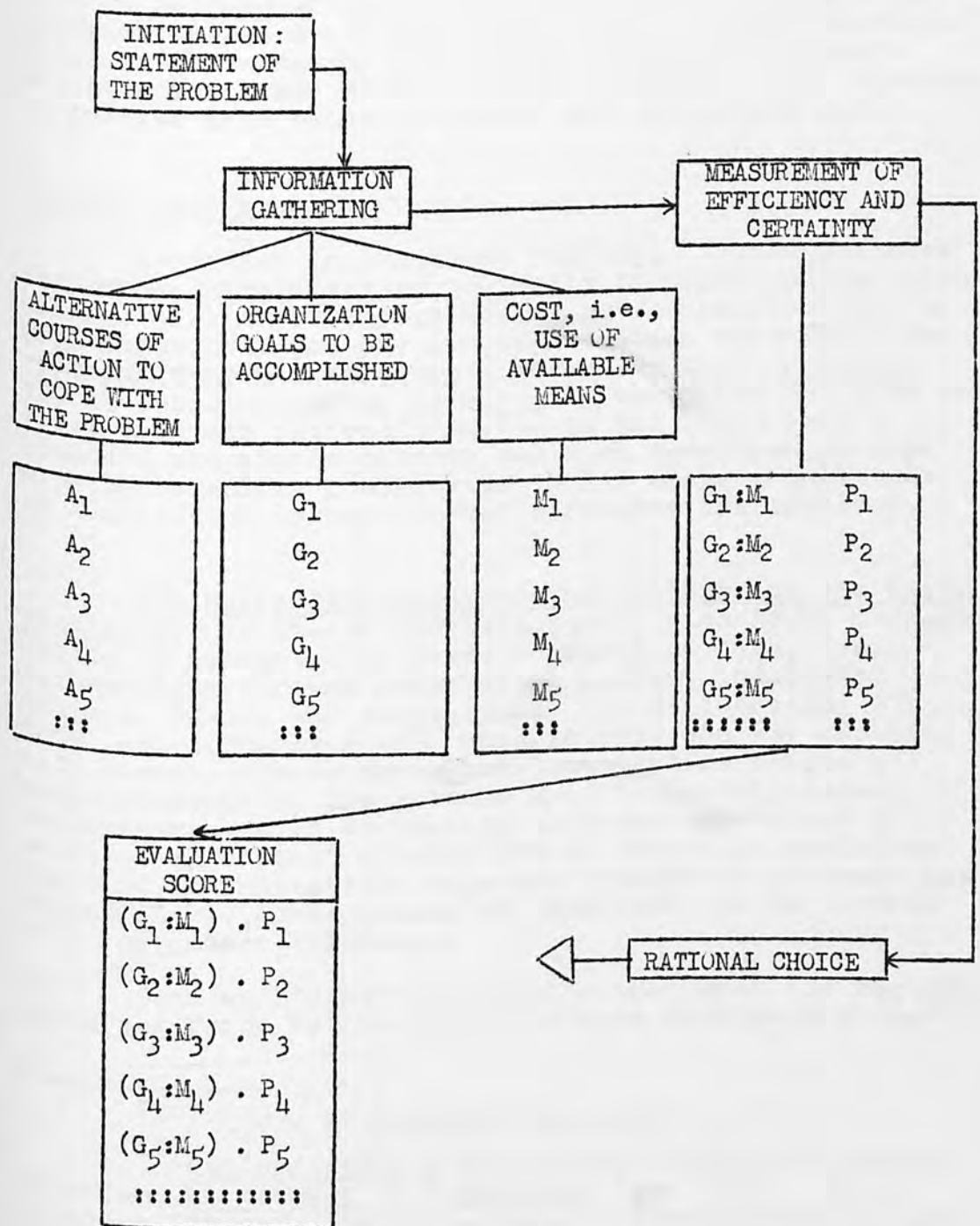


FIGURE 5

PROCEDURAL STEPS IN ORGANIZATION DECISION-MAKING  
 ACCORDING TO THE RATIONALITY MODEL

various methods of organizational decision-making, the question raised as to whether or not a common behavioral model of organizational decision-making exists where deliberation based on both intuitive and factual elements is treated in a rather standard and consistent way.

### The Research Findings

As stated in a current reading, "Modern business decision-making characteristically is organized decision-making. Ask an executive how he makes decisions and he will first tell you how his organization works."<sup>176</sup> The research findings disclosed, moreover, that organizational decision-making is not only organized but also is routinized and rationalized,<sup>177</sup> in the sense that a standard and single pattern has been developed to cope with and simplify problems of choice where a multitude of conflicting or unpredictable factors are involved.

The basic dimensions of the pattern and its basic standards. As stated previously, organizational decision-making is dominated by three constant factors, i.e., (1) muddling through conflicting values, interests, beliefs, ideas, and perceptions; (2) deliberating with doubt and struggling with uncertainty; and (3) clothing with reason. These three constant factors define the basic elements of the pattern used by organizational decision-makers in evaluating alternative courses of action. An "ideal" alternative is one which maximizes support, minimizes risk and uncertainty--or at least the unpredictable consequences of them--and can be clothed with reasonable arguments.

Such an "ideal" alternative must meet the requirements set forth by the five standards mentioned above<sup>178</sup>

<sup>176</sup>Editors of Fortune, op. cit., p. 173.

<sup>177</sup>Rationalization is defined by Philip Lawrence Harriman, Dictionary of Psychology (New York: Philosophical Library, 1947), p. 282, as "the method of self-justification whereby acceptable, not real, reasons are given for past behavior. It is also used to denote an intellectualized attempt to account for an unconsciously motivated thought or act."

<sup>178</sup>Supra, pp. 151-52.

which are used by the decision-makers in measuring the degree of effectiveness and success of their decisions.

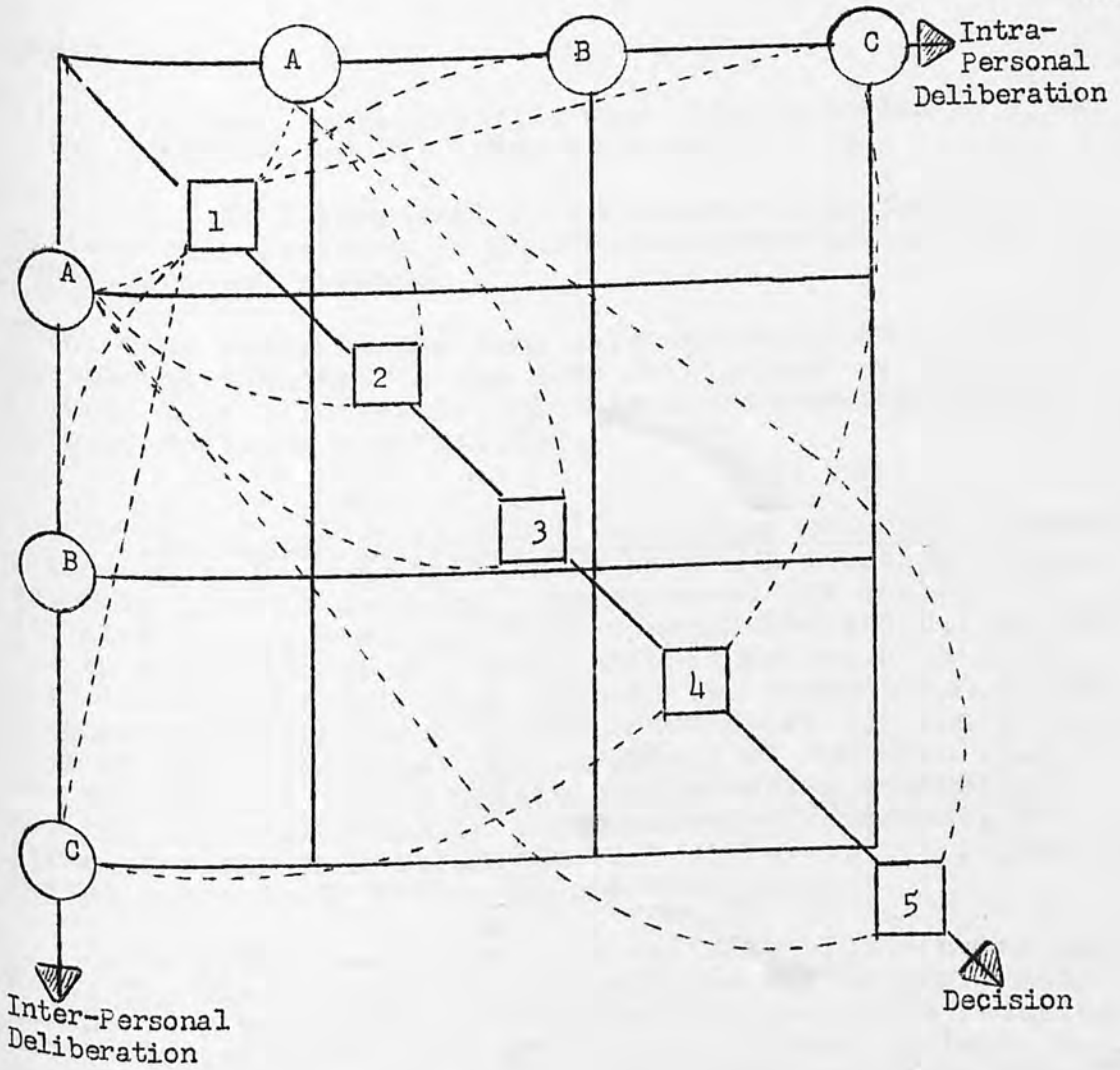
Each of these five standards, however, is not a solution but a problem in itself. What is a good decision according to the decision-maker's opinion or judgment is very often a big problem for him because he really does not know the answer. The decision-maker, himself, has very often contradictions in his own systems of values, beliefs, ideas, perceptions and cognitions.<sup>179</sup> Moreover, he very often faces a gap between factual data which he needs in order to complete his deliberation and factual data which he finally has or can gather. Very often each of the possible alternative courses of action which are opened to him includes both desirable and undesirable elements, known and unknown factors, or predictable and unpredictable outcomes. In all of these cases he faces an intra-personal conflict of what to do and what not to do.

Figure 6 intends to offer a visual aid for integrating all of these elements and presents an empirical scoring matrix in evaluating alternatives. As illustrated in this figure and indicated from the previous analysis, organizational decision-making has two basic dimensions: inter-personal balance and intra-personal balance. Each of these two dimensions is subdivided into the three basic factors of organizational decision-making, i.e., muddling through, struggling with uncertainty, and clothing with reason. An ideal solution is one where the decision-maker is able to convince himself, as well as his fellowmen, that the selected alternative (1) satisfies most and dissatisfies least, (2) secures predictable outcomes, and (3) is the best in terms of accomplishment of organization goals. Such an ideal solution fulfills the five standard requirements mentioned above.

Figure 6 must be viewed, however, as a conceptualizing device and not as a measuring instrument or rigid yardstick. In spite of the strong tendency of the modern theory to emphasize quantification and numerical interpretations of the decision-making problems, contemporary decision-makers work mostly on qualitative verbal questionnaires. They use the standards mentioned in this fashion: They select an alternative which they think is good--first standard--and they ask the following two

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<sup>179</sup>Cases #114, 222, 250, 314, 319.



Legend:

The basic factors in organizational decision-making:  
 (A) muddling through, (B) struggling with uncertainty  
 and (C) clothing with reason.



The basic criteria or standards (supra, pp. 151-52).



Relationships between the empirical standards of choice and the three basic factors of organizational decision-making in both dimensions, i.e., intra-personal and inter-personal.

FIGURE 6  
 AN EMPIRICAL SCORING MATRIX IN EVALUATING  
 DECISION-MAKING ALTERNATIVES

questions:

1. Am I sure, myself, that this solution is good?  
--the dimension of the intra-personal balance.

2. Am I sure that my fellowmen think that I believe this decision is good?--the dimension of the inter-personal balance.

Then, they evaluate the same alternative on the basis of the second standard in the same fashion and so on. Figure 7 is illustrative of this questionnaire evaluation of decision alternatives.

The stages of the decision-making process. Current organization theory, influenced by the perception of the assembly line in industry, has advanced the concept of decision-making development in consecutive steps. According to this concept an organizational decision is developed through the following steps: (1) recognition of the problem; (2) collection of pertinent data; (3) classification of the objectives; (4) inventory of the available means; (5) list of all possible alternative courses of action; (6) evaluation of these alternative courses in terms of means-ends relations; (7) decision; (8) implementation; and (9) follow-up and feed-back.

In order to evaluate the validity of the above concept, the distinction between decision and actions, made at the very beginning of this chapter, has to be recalled here. According to this distinction, a pure decision was defined as one dealing with complex problems where there are many alternative courses of action and the decision-maker has discretion to select any of these alternatives. A pure ministerial action was defined as one where the organization man has no discretion to select but only one predetermined course of action. Between these two categories there is a continuous range of administrative activities having both decision and action elements in varying proportions.

The conceptualization scheme of decision-making development mentioned was found applicable to the lower part of the range where the activity is rather simple, the decision-maker has limited discretion, and his job is routinized in a manner resembling the industrial assembly line. A typical category of this kind of activity is licensing. Upon the filing of the application, the

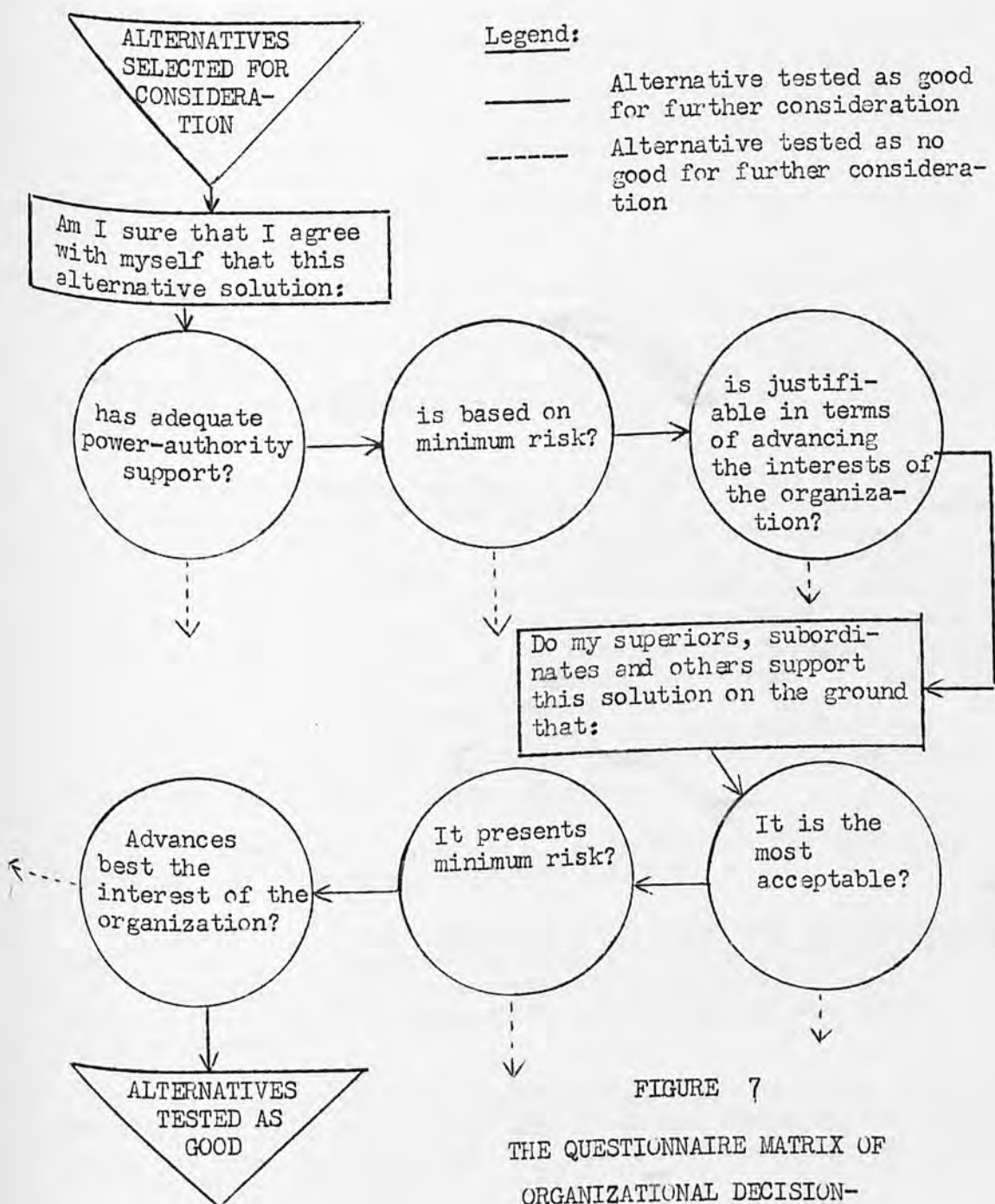


FIGURE 7

THE QUESTIONNAIRE MATRIX OF ORGANIZATIONAL DECISION-MAKING

licensing agent recognizes that he has a "typical" problem to grant or not to grant the license. Then he collects the necessary data about the applicant, looks at the licensing code in order to clarify the necessary requirements (objectives of his decision), defines the permissible and possible means of his action such as hearing, field inspection, examinations, etc., and, finally, makes his decision. Implementation, interpretation and follow-up are the ensuing activities.

On complex problems, however, the research findings disclosed that this conceptualization scheme does not present a realistic picture of the dynamics of the organizational decision-making process and leads to an artificial and superfluous delineation of its functional unity.

A more careful analysis disclosed that in many cases the beginning of the process is not a problem needing solution but a suggested solution which becomes a problem by being brought to the orbit of the decision-maker's activities.<sup>180</sup> In case number 309, for example, a first look could lead to the conclusion that the problem of the City Manager was to find which positions under Civil Service classification should be exempt so that the efficiency of the city government would be improved. According to the classical school of rationality, the decision-making process in this particular case should follow the following linear fashion:

1. The city council will recognize the problem: improving city government's efficiency.
2. Collecting the pertinent data and evaluating them in terms of means-ends analysis, the city council will find which sectors of the city government need improvement. One of them will evidently be the civil service rules.
3. Analyzing the last finding in the same fashion, the city council will conclude that the schedule of exempt positions must be reviewed and will ask the city manager to study this problem.
4. The problem of the City Manager will be to collect the pertinent data and analyze them in terms of

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<sup>180</sup>Cases #4, 7, 22, 23, 30, 44, 65, 91, 92, 104, 221, 246, 250, 285, 304, 309, 319.



means-ends relations predetermined by the City Council and so on.

As is evident from the above analysis, the re-examination of the civil service classification should result in the analysis of the problem on the basis of a panoramic view and complete overhaul of the efficiency in the city government.<sup>181</sup> This broad re-examination should include numerous alternative solutions, many of which will be referred to the civil service classification. Among the latter category of alternatives the City Council would select one.

Nevertheless, a deeper penetration into the background of this case discloses that the council's motion started with a tentative solution, i.e., that certain positions, mainly department heads, should be exempt.<sup>182</sup> The City Manager also began with the consideration of a solution. His recommendation was expected to be a suggested solution. Finally, the City Council's decision was expected to begin with a solution, i.e., the City Manager's recommendation.

The above phenomenon, i.e., the solution preceding the problem and becoming the focus of the process, which in terms of the conventional theory of rationality and rational decision-making seems to be absurd and paradoxical; it is not, however, incongruous and inconsistent with the empirical analysis of organizational decision-making made previously. As mentioned, the first dimension of organizational decision-making is that of intra-personal balance. This means that the individual participant in an organizational decision does not expose himself and does not bring up the decision case for organizational consideration unless he has achieved this intra-personal balance which, in the last analysis, means that he is able to present a desirable course of action (solution) which fulfills the three basic factors of organizational decision-making mentioned previously.

The next step is that of inter-personal balance. The suggested solution meets approvals and rejections in

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<sup>181</sup>Lindblom, op. cit., pp. 79-88.

<sup>182</sup>Case #309. "From the discussion it was clear that the councilman was interested primarily in department heads' positions."

the organizational forum. New "bids" are submitted in terms of alternative solutions. Lines of contact and resistance are formulated; and finally, a solution is accepted when it concentrates the necessary effective authority,<sup>183</sup> or in the reverse case the "problem" is written off.<sup>184</sup> This second stage, which may be short and simple<sup>185</sup> or long and complex,<sup>186</sup> is the core of decision-making as an organizational process.

As graphically depicted in Figure 8, the above analysis resembles the process of fermentation in bio-chemistry rather than that of the industrial assembly line.

It is evident on the basis of the above analysis that an organizational decision is in reality a constellation or a galaxy of numerous individual decisions. Some of these decisions are "registered" in the book of the organizational activities, while others remain hidden in the inner sanctum of the human psyche. When and where a decision begins and when and where it ends is not always clear. In case number 309, for example, when and where the councilman found that he should "fight" for the exemption of the positions of the department heads from civil service classification is unknown. He may have had this idea for many years, but he finally presented the case when he thought that it had good chance of acceptance. Likewise, when and where the decision of repairing of a communication short circuit in a city health department ends,<sup>187</sup> it cannot be stated exactly. It may be violated the next day; it may be effective over years, or it may become the "seed" or stimulus of new suggestions and a chain of sequential decisions.

An organizational decision, which is a galaxy of individual decisions, is not a linear aggregate of its component parts, but is formed from chains of sequential or circular individual decisions which are shaped through inter-personal interactions where each influences the formation of the others and vice versa. The factors which

<sup>183</sup> Supra, pp. 138-41; Cases #81, 30, 44, 99, 229.

<sup>184</sup> Cases #4, 104, 105, 225.

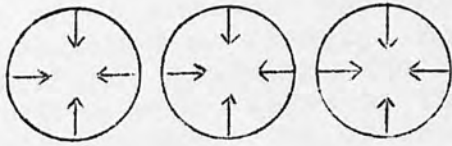
<sup>186</sup> Cases #44, 185, 220.

<sup>185</sup> Cases #11, 54, 103.

<sup>187</sup> Case #98.

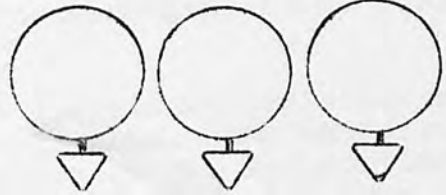
First stage:

Various individuals attempt to balance their stimuli for action in the area of organizational decision-making.



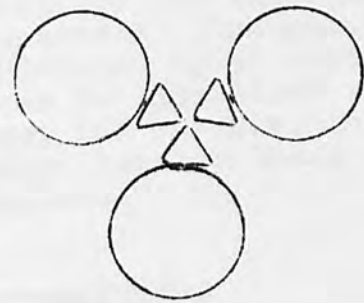
Second stage:

Balanced stimulations are transformed into suggestions-solutions launched into the orbit of organizational activities.



Third stage:

The suggested solutions (enzymes) form interacting combinations (fermentation).



Fourth stage:

An organizational decision is made.



FIGURE 8

THE PROCESS OF ORGANIZATIONAL DECISION-MAKING  
 DELINEATED IN ANALOGY WITH FERMENTATION

underlie each of these individual decisions, as well as their interrelations, are the three constant factors of the decision-making process mentioned previously: muddling through, eliminating uncertainty and clothing with reason. These three factors are present in both stages of the decision, i.e., the preparatory one where the decision-maker attempts to clarify his own ideas on the case (intra-personal balance), and the interaction stage where the decision is "discussed" in the organization forum (inter-personal balance).

Each of these numerous individual decisions can be subdivided into stages of development, such as initiation, information gathering, evaluation of the information, etc., and can be viewed as an entity in itself. In this respect the term stages of decision-making development has a dual connotation. It denotes the distinction between the various stages of development of each of these numerous individual decisions. It also implies the aggregate of all the homogeneous activities scattered throughout all of these numerous individual decisions, which activities possess a functional unity and can be classified under certain distinctive categories as, for example, information gathering. The interrelations between these two categories are illustrated as follows:

Stages	Individual Decision Number 1	Individual Decision Number 2	Individual Decision Number 3	Organizational Decision
Information	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	ΣI
Evaluation	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>	ΣE
Deliberation	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	ΣD

As indicated in the above analysis, the main difference between the stages of development of these individual decisions and the stages of development of the resulting organizational decision is that these stages in the first category are consecutive in a linear fashion, while in the latter they are discrete and they overlay in a curvilinear or circulatory fashion. The development of an organizational decision in various stages is presented in Figure 9. As indicated in this figure the aggregate of the various kinds of homogeneous activities in the

First stage: A suggested solution, or solutions, is brought into the orbit of organizational activities. This suggestion is a completed individual decision.

Second stage: This suggested solution, or solutions, results in fermentation in the decision network of the organization. The case is "discussed." Counter-suggestions are placed in interacting combinations. Each of these counter-suggestions represents either isolated individual decisions or groups of interrelated decisions.

Third and ensuing stages: As a result of the interactions developed in the previous stage, new modified solutions are presented in the same way and with the same characteristics. The trend in these stages is that these modified solutions tend to be reduced in number and differences between them.

Final stage: A single course of action is selected. In this course of action previously presented solutions have been considered, merged and reconciled. In the components of this final decision have been incorporated and accumulated many parts of the components of the previously presented decisions.

LEGEND:

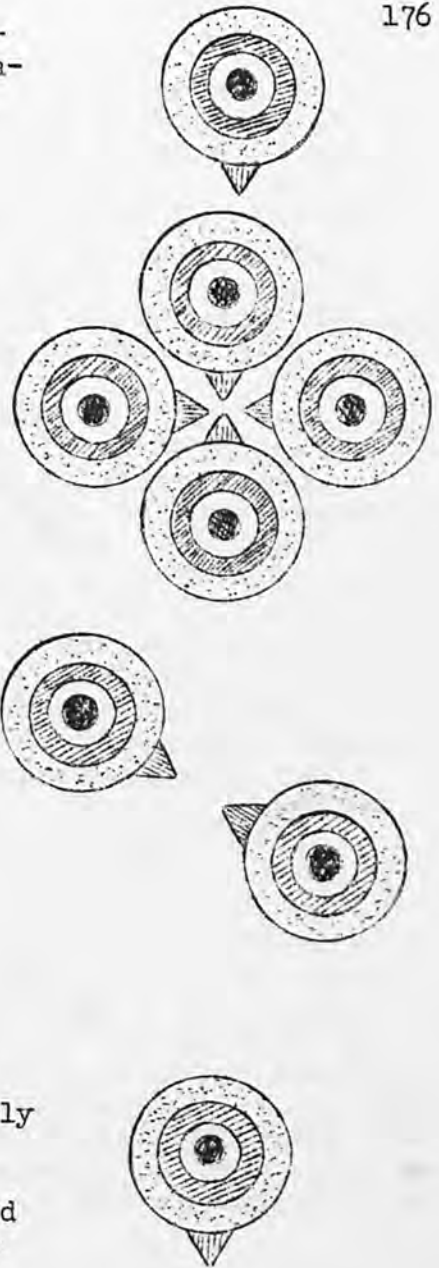
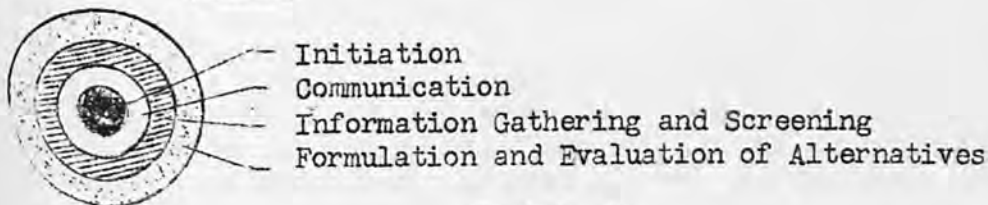


FIGURE 9

STAGES OF DEVELOPMENT AND CHARACTERISTICS OF  
 ORGANIZATIONAL DECISION-MAKING

individual decisions such as initiation, information gathering and screening, formulation and evaluation of alternatives, communication, etc., comprise their counterparts in the resulting organization decision. Figure 10 illustrates the development and formation of the information gathering and screening part of an organizational decision. In the same way the development and formation of the remaining parts of the decision, such as initiation, evaluation of alternatives, etc., can be visualized.

The above analysis indicates that the various parts into which an organizational decision technically can be divided are not related to chronological stages and are not developed in a linear fashion by consecutive steps, but they overlay each other and are developed simultaneously and in a parallel manner with the generic process. Using a metaphor from biology, the development of an organizational decision can be conceptualized in the same way as the development of the biological body. In the latter, the various parts, such as head, arms, heart, etc., are not developed in distinctive and consecutive stages, but they grow all together following the path of a continuous generic process. Like the parts of a biological body, the parts of an organizational decision are developed simultaneously along with the development of the generic process. From the very beginning to the end, initiative, information, evaluation, communication, etc., follow the path and the impulse of the development of the whole process conditioned by a multitude of inter-personal interactions. This is conspicuous in case number 323. The final organization decision was not developed in consecutive steps, distinguished on the basis of their functional impact on the final decision; but information, alternative solutions, communications, etc., developed along the "magnetic" lines of the generic process of individual interactions.

The assembly line visualization of the classical school of rationality, according to which when the clarification of the problem ends, the gathering of information begins, and when the gathering of information ends, the analysis of alternatives begins and so on was found applicable in lower-level, "routine" problems, where the elements of complexity and social or organizational interactions were very atrophic.<sup>188</sup> In complex problems,

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<sup>188</sup>Cases #19,103,113,244,245.

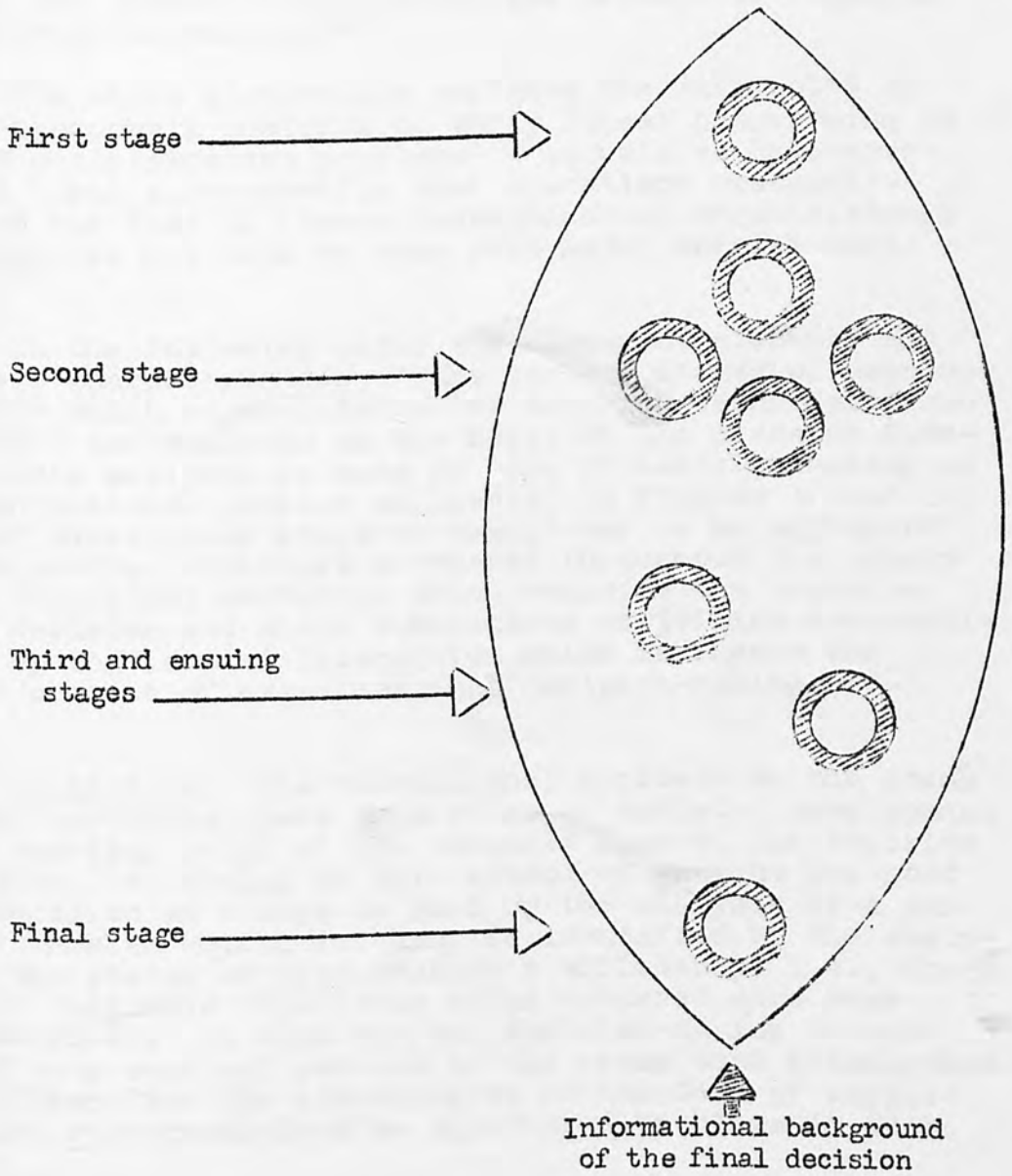


FIGURE 10

INFORMATION GATHERING AND SCREENING IN  
ORGANIZATIONAL DECISION-MAKING

however, this concept is unrealistic and insufficient to explain the dynamic character of the process of organizational decision-making.<sup>189</sup>

The above distinction explains the difficulty of many contemporary analysts to apply linear programming on complex administrative problems<sup>190</sup> as well as Professor Charles Hitch's observation that operations research--based on the idea of linear development of organizational decisions--is not able to cope with major complex decisions.<sup>191</sup>

In the following pages the component elements and the basic characteristics of the various stages of development into which an administrative decision technically can be divided are analyzed on the basis of the research findings. This analysis is made in view of decision-making as an organizational process delineated in Figures 9 and 10. In other words, each stage is considered as an aggregate of homogeneous activities scattered throughout the galaxy of the individual decisions which comprise the organizational decision and which homogeneous activities are conditioned by the laws of interaction which influence the generic process of organizational decision-making.

Initiation. The conventional approach to the study of decision-making views this stage of decision development as the starting point of the assembly line of the decision production. According to this school of thought the need for a decision is always defined by the analysis of a particular problem which, in turn, is identified by the analysis of the status of organization's efficiency, i.e., the ratio of desirable objectives minus achieved ends over means disposed. In this respect decision-making is considered as a vertical process in the sense that stimulation comes either from the subordinates in the form of suggestions and recommendations on discovered problems or from

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<sup>189</sup>Cases #17, 98, 163, 221, 261, 304, 315, 318, 323.

<sup>190</sup>Operations Research (Conference Board Reports, Studies in Business Policy, No. 82. New York: National Conference Board, Inc., 1957), pp. 11, 15.

<sup>191</sup>Charles Hitch, "Operations Research and National Planning--A Dissent," Operations Research, 5:718, October, 1957.



the superiors in the form of commands on policies and programs. In the same category falls the concept that the character of decision-making process is either deductive in the sense that the implementation of organization objectives or superiors' directives is a stimulus for decision, or inductive in the sense that problems emerging in the daily operations of the organization are solved by reference to the general objectives or superiors' directives. In other words, this school of thought views decision-making as a systematic process where decisions are made when they are needed. According to this aspect, decisions are made in the following two instances:

1. The systematic effort toward the accomplishment of the organization objectives which flows from top to bottom following the lines of the hierarchy. This aspect embraces the concepts of policy and program.

2. The problem-solving phase of administration where decisions on emerging problems are prefabricated or molded on the basis of organization objectives and policy directives. This aspect seems to be the forerunner of the idea that the decision-makers of the future will be electronic computers.

In many cases the research findings proved the validity of the above concepts. In other cases, however, it was disclosed that the above concepts are incongruous with the empirical model in many points.

First, initiation is a continuous phase of decision development which possesses the characteristics of an attribute of sensation.<sup>192</sup> Like an attribute of sensation, the initiation phase of decision-making embraces all the forces which keep the decision-making process going. When the initiator of a solution is disinterested, the driving force ceases, and the decision project is discontinued in spite of the "need" for it,<sup>193</sup> unless another "sponsor" takes over the project.<sup>194</sup>

Second, the idea of points of decision initiation located in the hierarchical pyramid or in the vertical line of authority, does not depict the real character of this

<sup>192</sup>Cf. supra, p. 60. <sup>193</sup>Cases #44, 104, 270, 308.

<sup>194</sup>Cases #45, 81, 220, 242, 323.

phase of organizational decision-making. The empirical observation of the initiation phase of decision-making resembles more the opening of a stock exchange market than the motion of an assembly line. An organization looks more like a group of overlaying magnetic fields than a manufacturing conveyor. These magnetic fields of initiation potentials are formed along the lines of the organizational grids of the hierarchical authority, power, communication, functional contacts, values, etc. The research findings disclosed the following characteristics of the initiation phase in organizational decision-making.

1. A period of time, sometimes long enough, elapsed between the moment when the decision was needed on the basis of the "theoretical" existence of a need for decision and the moment when the decision was actually made.<sup>195</sup> This "proper timing" was found to be a very important consideration in the initiation of an organizational decision. In a great number of cases both the interviewed administrators and the researchers emphasized the importance of "timing" decisions. From the analysis of these cases it became evident that the term "timing" was used as a condensed expression of the idea that the means-ends analysis or the crude identification of a problem is not enough for initiating a decision unless this was justified on the grounds of other factors involved, such as acceptance of the decision, position and directions of interacting forces on the decision-making scene, environmental conditions, etc.<sup>196</sup> As indicated by the analysis of the case number 309, the motion of the city government's decision machine started with a suggested solution instead of the recognition and analysis of a problem in terms of objectives. Indeed, the idea that every organizational decision must be articulated and evaluated in direct relationship with the overall objectives of the organization is superficial and unrealistic. First, such an approach is so grandiose that it is not feasible. The administrator cannot have in every decision a panoramic view of the whole picture of organization's efficiency and cannot imagine a complete overhaul of its machinery in order to define what is the best solution in his particular problem in terms of an overall effect. Second, the organizational departmentalization and the association of the administrators with intermediate goals, inhibit such an approach. Third, the governing bodies in both industry and government which are expected to allocate

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Cases #4,44,54,270.

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Cases #38,65,220,230.

these intermediate objectives between the various departments on the basis of an overall consideration of organization's efficiency, cannot accomplish such a task because (a) they do not have enough time and ability; (b) in a dynamic society the conditions of the environment under which the organization operates, are changed faster than the possibility of a comprehensive reconsideration of their impact on organizations' effectiveness and efficiency; and (c) such a plan of a continuous reconsideration and re-examination of the whole question of organization's efficiency in every moment and in every action is not feasible also from an economic point of view. For the reasons stated above, the attitude of governing bodies and managerial echelons is characterized by a more realistic approach. They realize that instead of a thorough overhaul of the organization, a series of consecutive improvements is more feasible. What improvements are needed, however, and in what order are not known elements because of the very fact that such an answer can be given only after a thorough analysis of the entire spectrum of organization's efficiency which cannot be done in every occasion with the political, structural, informational, jurisdictional, computational and time limitations under which, as a rule, they operate. Consequently, their search is for "better solutions" toward the improvement of the "present situation."<sup>197</sup> In this search effort, the inventory of ideas stored in (a) the decision-maker's mind,<sup>198</sup> (b) the organization's staff,<sup>199</sup> and (c) the organization's environment (imitation)<sup>200</sup> are the main sources of decisions initiation. What should be done and in what order is determined through the interactions of the participants in the decision-making process, who possess such "ideas." In this search the imitation stage of organizational decision-making consists of selection, discussion and comparison of such "good idea aids."<sup>201</sup>

The classical school of rationality, confined its thinking in the assembly-line model, failed to recognize the importance and usefulness of the "market competition" model in decision-making under which western civilization

<sup>197</sup>Cases #11,54,227,270.

<sup>198</sup>Cases #2,19,56.

<sup>199</sup>Cases #54,91,92.

<sup>200</sup>Cases #250,251,285.

<sup>201</sup>Cases #11,17,54,104,187,244.

and its industrial and economic edifice have been developed.<sup>202</sup> It also failed to recognize the difference between individual and group (organization) decision-making. Even if it is accepted axiomatically that the individual participants in the organization decision-making process possess the omniscient rationality of the homo economicus, the classical theory of rationality does not deal with the problem of synthesis of these individually rational decisions into an organizationally rational decision since it is obvious that what is rational for one participant is not for another.

2. The close relationship between decision initiation and organizational dynamics was disclosed by the fact that the initiations output of a decision-maker follows more the curve of his personal situation within the organization rather than the curve of decision needs on the basis of means-objectives analysis or problem pressures. Particularly, it was found that:

- a. Decision-makers who were new on the job or who felt that their position in the power network was weak avoided making decisions or made only "customary" decisions or non-conflicting ones.<sup>203</sup>
- b. When the decision-maker felt relatively familiar with his new job, and improvement of his status in the various grids, he became more decision productive and more aggressive. This is a crucial period when the individual tries to project his own ideas, values, interests, perspectives, methods, and experience against the traditional ways of doing things in the organization. This period is usually characterized by greater conflicts and tensions.<sup>204</sup>
- c. Then, the decision-maker, being familiar with the organizational setting, the power network, the philosophies and perspectives of his

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<sup>202</sup> March and Simon, op. cit., pp. 201-203; Ludwig Von Mises, Bureaucracy (New Haven: Yale University Press, 1944); Friedrich August von Hayek, Road to Serfdom (Chicago: University of Chicago Press, 1944)

<sup>203</sup> Case #221.

<sup>204</sup> Cases #98, 163, 166, 185, 225.

superiors, subordinates, and colleagues, becomes more "realistic." He knows better what kind of decisions, and to what extent, are "acceptable."<sup>205</sup> In other words, he has a more complete picture of his incomplete power, authority and capacity to make decisions which he wants, and moreover he is more familiar with the other factors which condition decision-making in his organizational setting beyond the ends-means analysis or the importance of the problems. He knows that complete overhauls and radical changes multiply reactions and inhibit effective implementation of such measures. In this respect the research findings seem to support Lindlom's thesis<sup>206</sup> that decision-making is directed toward incremental or marginal changes by using a succession of comparisons.

3. A third, incongruency between the model of rational decision-making and the research findings was discovered in the pluralistic character of decision initiation. The research findings disclosed that decisions were made as a result of:

- a. Environmental pressures. Although the decision-maker was "blind" about the need for decision or thought that no decision was necessary, he finally made a decision, either because he later recognized the need for a decision,<sup>207</sup> or because he wanted to put an end to conflict by making a compromising decision.<sup>208</sup>
- b. Subordinates' suggestions, made either during their daily contacts with the superior or in the form of staff work, were a very frequent stimulus for decision.<sup>209</sup>
- c. Policy, programs, and superior's orders were also a source of ideas resulting in decision.<sup>210</sup>

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<sup>205</sup>Cases #266, 304, 308, 313.

<sup>206</sup>Loc. cit.

<sup>207</sup>Cases #38, 45, 221, 247, 261.

<sup>208</sup>Cases #222, 223, 261, 281.

<sup>209</sup>Cases #11, 54, 91, 92.

<sup>210</sup>Cases #42, 241, 242.

- d. Functional contacts and informal contacts frequently offered ideas which later were transformed into decisions.<sup>211</sup>
- e. Initiation by the decision-maker himself. In a great number of cases there was disclosed a tendency among the decision-makers to make decisions directed toward the "improvement" of the organization.<sup>212</sup> This disclosed a tendency of the organization men to do "something good or better" or, at least, to expose such an intention and is a prolific source of ideas which stimulate decisions. On this point the research findings did not support Weber's thesis that the bureaucrat is like a mechanical automaton, dominated by "a spirit of formalistic impersonality, sine ira et studio, without hatred or passion, and hence without affection or enthusiasm."<sup>213</sup>

Information gathering. Like the previous stage of decision development, the collection of the pertinent data on which an organizational decision is based is a continuous development. From the very beginning to the very end information is accumulated not in linear fashion, but in a circular one. The decision-initiator presents his "bid on the basis of a set of data and calculations which he believes meet the three basic elements of organizational decision."<sup>214</sup> The orbit of his solution to the organization's space is the first test of the adequacy of his informational arsenal. It may be proved as satisfactory,<sup>215</sup> it may be partially or thoroughly discredited.<sup>216</sup> Finally, it can be disclosed that it is incomplete and needs completion. In all these cases the character and the degree of interactions rather than the logical analysis of the problem<sup>217</sup> define the sort and the amount of supplementary information needed.

<sup>211</sup>Cases #17, 54, 187, 261.

<sup>212</sup>Cases #2, 91, 92, 186, 227, 229.

<sup>213</sup>Merton and others, op. cit., p. 27.

<sup>214</sup>Supra, <sup>215</sup>Cases #2, 30, 242.

<sup>216</sup>Cases #17, 91, 246. <sup>217</sup>Cases #17, 30, 91, 185, 220, 246.

The characteristic features of information upon which the decision-maker relies are the following:

1. It is secondary in the sense that the decision-maker relies to a great extent on information given to him by others, such as subordinates, colleagues, superiors, staff people, pressure groups, and press. Consequently, the quality of information depends upon: (a) The effectiveness of the communication system.<sup>218</sup> (b) The ability of the people to gather accurate data.<sup>219</sup> (c) The willingness of the information suppliers to give "pure" information without any distortion, elimination, or exaggeration.<sup>220</sup>

2. It is incomplete and dubious in the sense that in most of the cases the decision-maker is not sure that the information which he gets tells the whole story.<sup>221</sup> He knows the ineffectiveness of the communication systems and the limited capacities of his information suppliers to get all the pertinent details. Moreover, he is familiar with the fact that information is sometimes presented in such a way as to be more a pitfall than a lighthouse.<sup>222</sup>

3. It is limited in its verification. The decision-maker usually has limited means, time and ability to verify the validity of the information given.<sup>223</sup> Then, many times he decides by taking the calculated risk that the decision might be based on inaccurate data.<sup>224</sup>

4. It is complicated in the sense that it is not presented in the form of clear-cut and classifiable solutions but very often includes facts which seem to be true on the basis of information derived from one source and untrue on the basis of information given by another source. Both sources seem to be equally valid.<sup>225</sup>

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<sup>218</sup> Cases #54, 172, 225, 323.

<sup>219</sup> Cases #114, 172, 246, 255, 272.

<sup>220</sup> Cases #225, 265, 319, 323. <sup>221</sup> Cases #91, 92, 221, 225.

<sup>222</sup> Cases #225, 319. <sup>223</sup> Cases #114, 225, 255, 315, 319.

<sup>224</sup> Cases #114, 272, 310, 315, 319.

<sup>225</sup> Cases #246, 270, 285, 318, 319.

Information screening. The decision-maker, being aware of the fact that the information which he gets is not 100 per cent complete, valid or verifiable, attempts either an armchair evaluation based on personal judgment or a cross examination guided by the configuration of the interactions of the generic decision-making process. The research findings disclosed that the following factors influenced the decision-maker in this screening process: (1) enlightenment during the stages of intra-personal or inter-personal conflict;<sup>226</sup> (2) his ability and available means to make either personally, or by his staff, a further investigation of the subject-matter;<sup>227</sup> (3) his professional knowledge and experience, penetrating hunch, and "guesstimate" in screening the voluminous mass of information;<sup>228</sup> and (4) consultation.<sup>229</sup>

Selection, formulation, and evaluation of alternatives taken under consideration. As explained earlier in this chapter, the theory of rational decision-making is based on the assumption that alternatives are predetermined by the nature of the problem and that the role of the decision-maker is to discover and evaluate all these alternatives through a means-ends analysis. As illustrated, however, in reality the decision-makers begin with the consideration of a solution instead of the analysis of a problem. This means that alternatives are formulated rather than discovered during the process of decision development. The decision-maker does not begin with an inventory of all possible alternatives and does not spend his time for their discovery, but he starts directly by an inventory of all the submitted "bids." Suggested solutions in the extremes designate the range of alternatives which are taken into consideration and delimit the area within which the final decision will be located. Approximately 70 per cent of the decision cases selected by Markey and Nicolaidis disclose that the final decision is located about the mid-point of the range. This illustrates the compromising character of organizational decision-making.

The fact that decision-makers consider always a few of the theoretically possible alternatives has puzzled the

<sup>226</sup> Cases #17,54,105,152. <sup>227</sup> Cases #91,92,114,186.

<sup>228</sup> Cases #240,255,316,318,319.

<sup>229</sup> Cases #172,242,251,272.



followers of the rationality school. In an effort to find a plausible explanation for this phenomenon, they invented the theory of the computational limitations of the human mind which inhibit achievement of such a grandiose task.<sup>230</sup> Although they believe that in spite of any effort, these limitations can be reduced only by a small degree, they insist that a comprehensive means-ends analysis is the only way by which the rational choice can be discovered. In this respect they believe that although the norm of an omnisciently rational decision cannot be fulfilled in actual decisions, organizational rationality can be improved by providing for the decision-maker training, knowledge, and tools by which he can increase the number of alternatives taken under consideration and, consequently, improve the rationality of his decisions.

In all the above discussion, nevertheless, scant attention has been given to the following three points:

1. In many cases the decision-makers evidently have opportunity and ability to consider more alternatives than these taken finally under consideration; however, they confine their deliberation to a few.<sup>231</sup> This indicates that the computational limitations of the human mind are not always the main cause of confining their choices to a limited number of alternatives, but other factors also evidently play an important role. The study of these factors has been neglected by the school of a comprehensive means-ends analysis.

2. A comprehensive means-ends consideration is, in the last analysis, irrational because it leads to an unpredictable waste of energy and effort. As explained earlier in this chapter,<sup>232</sup> the theoretically possible means-ends combinations are so numerous that, regardless of any question of feasibility, a thorough and comprehensive consideration of all these possible alternatives and their outcomes clashes with the cost and time limitations under which the decision-maker operates. The process of administration is not like Plato's academy where discussion and analysis of the same problem were a perpetuating endeavor, but as a rule decisions must be made, under varied pressures, on definite time limitations and some-

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<sup>230</sup> Simon, Administrative Behavior, pp. 79-109.

<sup>231</sup> Cases #11,17,45,104,107,225.

<sup>232</sup> Supra, pp. 107-8.

times on strictly defined deadlines.<sup>233</sup> If every decision-maker attempted to consider all the possible alternative courses of action it is obvious that this consideration would result in:

- a. An enormous increase of the preparatory work needed for every decision. It could be argued that this will increase the chances of finding the best choice and, consequently, the additional costs for this preparatory work will be counter-balanced by the profits of better results. It could be argued, however, that the reverse will happen. The increase of the preparatory work will increase the possibilities of more and greater mistakes and, consequently, the possibility of more erroneous issues. This is one of the basic arguments used in favor of measurements and evaluations from samples instead from the universe.<sup>234</sup>
- b. Such a comprehensive analysis of all the possible alternatives could result in a medley of over-lapping activities. If every decision-maker should consider all the possible alternatives and their far reaching consequences, this would result in a situation where everybody in the organization will question and think for everything.

3. Such an approach is entirely unhistorical. There is not any single branch of science where progress was achieved by reconsidering and re-evaluating in every step the whole body of the available knowledge. The basic characteristic of scientific progress is its additive and accumulative nature. Science has been advanced mainly through consecutive steps where knowledge has been accumulated through a ladder of contributions, modifications, or new marginal inventions.<sup>235</sup> Like scientific achievements, administrative achievements have followed a similar pattern according to which the constant aspiration of the

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<sup>233</sup>Cases #91,92,191,226,235,241.

<sup>234</sup>Mandel, op. cit., pp. 153-54.

<sup>235</sup>Stuart Chase, The Proper Study of Mankind (revised edition; New York: Harper and Brothers, 1956), pp. 11-18; James W. Fesler, "Programming Research--Linear or Circular," Public Administration Review, 19:285, Autumn, 1959.

administrator is to achieve progress by consecutive marginal improvements on an additively erected edifice.

The empirical pattern emerging from the analysis of the cases, discloses that in actual situations the main problem of the decision-maker is not how to increase the alternatives from which he will make the final choice but how he could reduce them to a manageable number. The basic characteristics of this pattern are:

1. In modern bureaucratic organizations every decision-maker realizes that he is not able to overturn everything and to make a complete overhaul of the organization at once. He inherits a certain "situation," and he realizes that the best approach is to attempt "improvements" through consecutive steps.<sup>236</sup> He knows that "revolutionary" changes and complete overhauls represent a triple danger. First, they could produce unpredictable outcomes to an extent that would be beyond any further possibility of control or correction. Second, the larger the attack front, the greater the possibilities of effective resistance to changes attempted.<sup>237</sup> Third, the larger the area the smaller the possibility of a deep and comprehensive analysis.<sup>238</sup> For all these reasons the problem of the decision-maker is to develop a chain of consecutive decisions by which he could move from the present status to a better one. In other words, the problem of organization effectiveness and efficiency are not examined in every case when a decision has to be made, but they are continuously opened for examination and consecutive marginal improvements. There is a perpetual "auction" for "bids" of good decisions.<sup>239</sup>

2. Every proposed new solution is examined on its merit, i.e., to what extent it offers a "betterment."<sup>240</sup>

3. In case that more than one good solution is presented, the problem of the decision-maker is to find which is the best. The problem is sometimes very easy because one alternative has an indisputable preponderance over the others.<sup>241</sup> Very often, however, the choice is a

<sup>236</sup>Cases #36, 98, 162, 242, 247.

<sup>237</sup>Cases #7, 99, 185, 225.

<sup>238</sup>Cases #270, 309, 318.

<sup>239</sup>Cases #11, 17, 54, 91, 92.

<sup>240</sup>Cases #17, 54.

<sup>241</sup>Cases #17, 54, 244.

real Gordian knot, because not only does no single alternative seem to be superior to others, but many alternatives are either equally good or equally bad.<sup>242</sup> In all these cases the real trouble of the decision-maker is to "get out" of the labyrinth into which he has been involved by a suggested solution which solution became a problem through later developments in the form of either counter-offers<sup>243</sup> or further evaluation,<sup>244</sup> which disclosed that no satisfactory solution existed.<sup>245</sup>

In the last case, i.e., when there is a problem without a satisfactory solution, the decision-maker tries to "draft" an issue. Contrary to the concept of the classical school of rationality that the best approach is to identify the objectively pre-determined alternatives and through the evaluation of all those alternatives to discover the best, decision-makers operate on the basis of a more pragmatic and realistic method as follows: (1) they evaluate all the proposed alternatives by using the criteria<sup>246</sup> as well as the questionnaire presented in Figure 7, as the basic yardsticks in their evaluations; and (2) if no alternative fulfills all the required tests, they try to formulate such a solution either by improving the one which seems to be least unsatisfactory<sup>247</sup> or by trying to find "an average" between the most "considered" alternatives.<sup>248</sup>

The above analysis illustrates that from the very beginning the decision-maker tries to reduce the number of alternatives taken under consideration into a few. He is oriented toward the discovery of an ideal solution which would make everybody happy. Such an ideal solution should meet the requirements set forth by the five standards mentioned above and the questionnaire in Figure 7. Because such an ideal solution is not offered in a ready made form, he tries to draft or formulate one or more alternatives either by improving the more satisfactory ones or by formulating a compromising solution between the most considered alternatives.

In this approach he uses what is called here the

<sup>242</sup>Cases #250, 318, 319      <sup>243</sup>Cases #105, 185, 236.

<sup>244</sup>Cases #45, 104, 152, 186.      <sup>245</sup>Cases #314, 318, 319.

<sup>246</sup>Supra, pp. 151-52.      <sup>247</sup>Cases #187, 222, 318.

<sup>248</sup>Cases #99, 230, 246, 257, 323.

"method of equalizing alternatives." This term describes his effort toward simplification which consists of isolating, identifying, and formulating alternative courses of action which, although they each have a number of desirable and simultaneously undesirable consequences, they seem to be equal in the overall effect and are considered as the most favorable. In this effort his approach is more pragmatic than systematic.

The problem choice. When the decision-maker is able to draft finally a solution which has an indisputable preponderance over the submitted suggestions or to find one which meets all the basic prerequisites, i.e., intra-personal and inter-personal balance on the three fundamental questions of muddling through, uncertainty and clothing with reason, the problem of choice has been solved.

The research findings disclosed, however, that in many cases the decision-maker faces a puzzling question because no alternative meets completely all the necessary prerequisites of an indisputably good decision. In many cases it was found that:

1. There existed more than one alternative course of action which seemed to be equally "good" or equally "bad" in terms of acceptance or dissent without any of them possessing a conspicuous preponderance even after the most deliberate analysis of the factors involved. A compromising solution was not feasible because they also included diametrically opposite elements.<sup>249</sup>

2. Each of these alternatives presented a number of desirable and undesirable consequences but the overall result seemed to be the same.<sup>250</sup>

3. Each of these alternatives seems to have the same amount of risk in terms of anticipated success or failure.<sup>251</sup>

4. Each of these alternatives seemed to be supported by equally reasonable or equally unreasonable arguments in terms of advancing organization goals.<sup>252</sup>

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<sup>249</sup>Cases #315,316,319. <sup>250</sup>Cases #250,251,257.

<sup>251</sup>Cases #114,255,272,314,319.

<sup>252</sup>Cases #187,222,315,323.

As mentioned previously, the essence of the decision-making process lies in the choice of one alternative among many. As illustrated above, decision-makers follow certain preparatory stages by which they try to reduce the possible courses of action to a few which seem to be equally good or at least "not bad" in the overall effect. By formulating a number of alternative actions they do not solve, of course, the problem of choice. The fact that all these alternatives seem to be equally good or bad does not assure the decision-maker that any choice will necessarily produce the same results. This is the "hard core" of decision-making, i.e., how can a decision-maker select today a course of action which must be proved right tomorrow?<sup>253</sup>

To this question three answers are given in the current readings: (1) intuition, (2) rationality, and (3) statistics and theory of games. The limitations of the first two have been explained in previous pages.

The third suggestion has the following serious limitations:

1. It underestimates the sociological and psychological factors which condition decision-making. It expects that the decision-maker will select course A instead of course B when the chances of a favorable outcome in the first course are 51 per cent and in the second 49 per cent. This assumption, however, is completely blind to the fact that in many cases the outcome of the decision has a serious bearing upon the decision-maker's status and career,<sup>254</sup> and even in cases where the decision-maker has a 98 or 99 per cent chance of success, he is still skeptical as to whether or not he should jeopardize his career or reputation by selecting the indicated alternative.<sup>255</sup>

2. It is not applicable to the cases where the chances of a favorable or unfavorable outcome are even.<sup>256</sup>

3. It is not applicable to cases where prediction cannot be made because the available data are incomplete, controversial, or nonquantifiable, and particularly where

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<sup>253</sup> Cases #272, 318, 319. <sup>254</sup> Cases #45, 185, 221.

<sup>255</sup> Cases #221, 236, 304, 319. <sup>256</sup> Cases #314, 318, 319.

prediction cannot be expressed in percentages.<sup>257</sup>

The methods of choice. Within the framework of the above analysis a question was raised as to whether or not decision-makers have developed empirical methods of solving this vexing problem and rationalizing their deliberations. Indeed, the research findings disclosed that in these cases the decision-makers use the following methods:

1. Imitation. Instead of an analysis of all the alternative courses of action, their consequences and the combinations of pros and cons, the question, "what are others doing?" seems to be a simplified method in wide use in all the types of organizations at all levels of the hierarchy.<sup>258</sup> This method is based on the premise that a practice in general use is expected to be more effective, less controversial, more "reasonable," more "workable," and easily justifiable.

2. Tradition, i.e., the question, "What did we do in the past or what is customarily done?" is based on the same premise. Moreover, it is expected to be more secure in the sense that it institutionalizes the responsibility of choice. In case of unfortunate developments the decision-maker can say that he did not make any subjective or risky venture but that he merely applied the same standards which had been acceptable by the hierarchy and the rank and file of the organization "over the years." This explains also the tendency toward an administrative doctrine of stare decisis which was mentioned previously.<sup>259</sup>

3. Fashion. Decision-makers exhibit a tendency to make "fashionable" decisions, i.e., decisions which keep pace with the prevailing mood in the organization and its environment at the time of the decision.<sup>260</sup>

4. Pragmatic experimentation. Because in most complex administrative problems no alternative seems to possess indisputable preponderance over the others, there is a tendency to make "partial" and "exploratory" decisions or "decisions by steps." "Let us try this measure in department A first; and if it works, we can extend it to the others," or "watch and wait" is a reasoning used very often.<sup>261</sup>

<sup>257</sup>Cases #255, 315, 319

<sup>258</sup>Cases #250, 251, 285.

<sup>259</sup>Cases #273, 278, 279, 304.

<sup>260</sup>Cases #220, 250, 318.

<sup>261</sup>Cases #2, 8, 230, 281.

5. Consultation. Consultation seems to serve a fourfold objective. First, it enlarges the view on a certain problem by gathering observations and opinions of others. Second, it institutionalizes the risk and the responsibility by sharing them among many. The use of staff work, the tendency to accept the recommendations of the subordinates and specialists, and the tendency to refer difficult or controversial issues to superiors although the subordinate had jurisdiction over the subject, seem to fall within this objective. Third, it facilitates the acceptance of the decision and minimizes reactions. Fourth, the fact of consultation, itself, is considered as a good argument in backing the reasonableness of the decision.<sup>262</sup>

The above methods are used by the administrators in their efforts to simplify and develop workable solutions in handling complex or controversial administrative issues where a clear-cut solution or one secure from unpredictable outcomes does not exist. As such, they are methods of simplification, and they can be viewed as subservient tools of the decision-making process. Nevertheless, because of wide and consistent use, they become very often terminal values framing and conditioning not only decision-making but the organization life as a whole. Imitation, tradition, fashion, pragmatic experimentation, consultation, and institutionalization of the risk and responsibility and a strong tendency to "make everybody happy" very often form a constellation of the values which dominate a great or small part of the organizational sub-culture.

Communication. The concept of overlaying subdivisions of the generic process of decision-making which are developed in a parallel fashion can be substantiated through the empirical observation of the communication aspects of an organizational decision. In the conventional concept of the decision assembly line, communication is viewed as that part of the decision-making process which embraces all the organizational activities devoted to the development of the decision from the moment and point of deliberation to the moment and point of its implementation. As disclosed, however, from the analysis of the cases, communications overlay all the phases of the decision from the very beginning to the very end.<sup>263</sup> Because

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<sup>262</sup>Cases #78, 92, 114, 187. <sup>263</sup>Cases #17, 221, 225, 246.



of the fact that an organizational decision is a product of inter-personal interactions, the importance of communication is obvious. It was disclosed that the final choice of the decision-maker does not depend so much upon his knowledge of "facts" as on the character and configuration of the "magnetic field" of organizational interactions.<sup>264</sup> Communication is not only a system for supplying this information, but it is also an integral part of the interacting process.

The development of the linear concept of the communication system described above has been influenced through concepts developed by communication engineers (the telephone line) and biologists (the nervous system). The idea of a transmission line or lines is predominant in organization theory. The research findings disclosed that this conceptual model is not realistic. The communication structure of an organization looks more like a stock market than a panel of wire lines.<sup>265</sup> Lines of transmission are used, of course, in the communication structure of organization as they are used by stock market brokers for the transmission of their messages. The transmission of the messages of the brokers, themselves, does not change the "value" of stocks; only the interactions of these messages in the market place are the decisive factors. In the same way the transmission of information through the communication lines of organization is not the decisive factor. As has been pointed out, the problems of communication are problems at three levels: (1) technical level (How accurately can the symbols of communication be transmitted to the receiver?); (2) semantic level (How precisely can the transmitted symbols convey the desired meaning?); and (3) effectiveness level (How effectively does the received meaning affect the conduct of the receiver in the desired way?). From an organization standpoint the third level is the most important.<sup>266</sup>

On the basis of the research findings the following elements have been identified as the basic characteristics of an empirical pattern of communication in an organizational setting:

<sup>264</sup>Cases #220, 225, 246, 261, 304, 308.

<sup>265</sup>Cases #38, 45, 220, 221, 223, 225.

<sup>266</sup>Russell L. Ackoff, "Towards A Behavioral Theory of Communication," Management Science, 4:218-34, April, 1956.

1. The grid of downward transmission lines. The classical concept, influenced by the unitary and monocratic delineations of organization, views the communication system of organization as a replica of its hierarchical pyramid. Orders are transmitted from top to bottom along the hierarchical lines through a chain of consecutive stations, coinciding with the supervisory stations. The task of each station is to push downward the orders received from above. To this end the sole task of these stations is to amplify and "sell" command directives. The research findings disclosed that there are many communication grids through which the information is transmitted downward. This is evident in case number 309, for example, where, in spite of the city council's desire not to communicate its resolution downward, the city offices were buzzing the next day from the discussions of the motion by the city's rank and file.

2. The scattergram of the points where command directives are "shaped." There are points in the structure of organization where information or command directives are shaped first through interactions or interpretations and then transmitted on "the lines." This is evident in case number 309:

Many of the employees thought that this was the first step toward exempting all positions. Some thought that this was a maneuver to fire certain department heads.

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 The unrest demonstrated the sociometric network formed around this particular issue. Department heads arrived at the . . . assumption that the council was "after" three individual department heads. There were as many combinations of three mentioned as there were people talking about them.

3. The grid of upward transmission lines. Like its counterpart in the downward communication, this grid includes many lines through which information is transmitted upward. These lines may be either parallel or crossing the lines of responsibility of the organization chart.

4. The scattergram of the points where upward information is shaped. It is similar to its counterpart in the downward communication but not necessarily identical.<sup>267</sup>

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<sup>267</sup>Cases #45, 65, 91, 246, 323.

These four elements, mentioned above, which comprise the total structure of the organization are well illustrated in case number 17 in which the Mayor's commanding directive to hold down capital expenses was not only communicated downward by the CAO and the administrative aide, but it was shaped through interpretation in such a way as to prevent any expenditure regardless of the availability of funds or savings involved. On the other side, the Department Head used the direct but informal "council line" to thrust upward his request, when he realized that CAO and aide had blocked this request.

In summary, the operating system of communication in an organization embraces not only the formal lines of authority and responsibility but also a multitude of informal lines. Moreover, its effectiveness depends more on the character of the interaction process in the various points where communication is shaped than on the structure of the communication lines alone.<sup>268</sup> The points along which information is "shaped" and then transmitted exist not only at those places represented by the "boxes" of the organization chart but at a multitude of other points including halls, toilets, cafeterias, etc.

Interpretation-implementation. It was found in a number of cases that a decision with the same context had different interpretations by different people. Sometimes such interpretations deviated so much from the thinking of the original decision-maker that the original decision and the interpreted decision were two different things. The finality of the decision depends on its implementation.<sup>269</sup> Consequently, interpretation and implementation must be viewed as parts of the decision-making process. As all the other stages mentioned above, the interpretation-implementation phase of decision-making in reality overlays these stages against the conventional view according to which the implementation stage begins at the moment when the formulation of the decision ends. In actuality the "posts" where the decision will be interpreted and implemented react, interact, or counteract, at the very beginning from the moment when a tentative solution is discussed.<sup>270</sup> The feedback resulting from this anticipated or threatened "interpretation counterattack" has a serious bearing on the formulation of the alternatives

<sup>268</sup>Cases #4,7,22,220,225.

<sup>269</sup>Cases #7,222,225,323.

<sup>270</sup>Cases #17,91,92,223.

and the final choice.<sup>271</sup>

Feedback. In many cases the implementation of a decision resulted in a chain of reactions which, in turn, were stimuli for a chain of referral or sequential decisions.<sup>272</sup> All these decisions, made either at the station of the original decision, or in other places, were due to the reactions stimulated by the original decision. In all these cases the question was raised where decision-making ends. It is evident that an analysis of the decision made on a broad basis should include all these satellite decisions. This illustrates that while decision-making can be viewed as a chain of discrete decisions, the organizational process of decision-making is a continuous one. Organizations have a multiple system of memory. Memory is deposited in the files, the minds, and very often the hearts of the people. These memory archives are not confined to the texts of the decisions, but they incorporate all the related activities. The choice of a certain course of action and the successful surpass of the exposed resistance do not assure that the question has been closed for good. The memory of the struggle and the conflicting interests remain in a drowsy status but ready to be active at the first opportunity when the configurations and changes of power dynamics leave a favorable balance.

#### IV. THE DECISION-MAKER

The term decision-maker could be used with three possible connotations: (1) to indicate who has authority, according to formal rules of the organization, to sign decisions; (2) to indicate who actually was the decision-maker or, in other words, whose will was the sine qua non of the decision made; and (3) to indicate the total panel of persons who participated in the decision-making process in the sense that the decision made might be different without the participation of one or more of them.

#### The Conventional Concepts

The conceptualizations of organizational decision-making in the current readings of administration distinguish two basic categories of decision-makers:

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<sup>271</sup>Cases #223,281,323.      <sup>272</sup>Cases #104,185,221,246.

The group as the decision-maker. This approach views an organizational decision as the result of many individual activities converging into a common product. According to Marry Follett's concept of final authority as an illusion, executive decision is only a moment in a long process.<sup>273</sup> A decision grows by accumulation of authority, information, suggestions, recommendations, etc., through a long process of individual activities.

The individual decision-maker. According to this concept, an organizational decision is always an individual product in the sense that decisions are made by the individuals and not groups.<sup>274</sup> As W. H. Whyte points out:

People very rarely think in groups; they talk together, they exchange information, they adjudicate, they make compromises but they do not think; they do not create.<sup>275</sup>

### The Research Findings

As indicated in the preceding analysis, both versions of organizational decision stated above can be accepted as valid depending upon the basis of the definition used. If the definition is confined to the point and person who "signed" the final draft, it is obvious that in this case the individual is the decision-maker in a strict sense. If his decision is viewed as a product of a multidimensional influences, it is obvious that in a very broad sense the participants in the decision-making process are the whole community, since ideas, pressures, patterns, norms, models, etc., which influence the decision-maker emerge from every corner of this present and past life.

The above distinction underlies the need for a conceptual scheme adequate to synthesize the common

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<sup>273</sup>Harold F. Smiddy, "Managerial Decision-Making," Advanced Management, 23:5-13, November, 1958.

<sup>274</sup>Ibid.

<sup>275</sup>William H. Whyte, Jr., The Organization Man (Garden City, N.Y.: Doubleday and Company, Inc., Doubleday Anchor Books, 1956), p. 57.

elements of both these approaches and to develop an empirical and operational concept of the organizational decision-maker, drawing two lines of distinction between these concepts, i.e., the one based on a strict formalism and the other extended to the social infinite.

Kinds of organizational decision-makers. As indicated in the analysis of the cases, decision-makers can be classified into two categories: (1) collective bodies, such as councils, boards, and committees;<sup>276</sup> and (2) individuals.<sup>277</sup>

Common characteristic features of individual and collective decision-makers. From the previous analysis, the following common characteristic features can be distinguished in both of the above categories of organizational decision-makers: (1) both operate through complex systems of loyalties and expectations,<sup>278</sup> (2) both face a common problem of struggling with uncertainty,<sup>279</sup> (3) both face the need of clothing their deliberations with reason,<sup>280</sup> and (4) both deliberate through a procedural pattern of consecutive circulatory interactions starting with a suggested solution, gathering momentum in a counter-attack of challenges, modifications and new solutions, and ending with an accepted solution.<sup>281</sup>

Contrary to the ordinary concept that an individual decision is made by an individual and a collective decision by a group, the research findings disclosed that many of the so-called group decisions were in the last analysis individual decisions ratified or "blessed" by a collective body.<sup>282</sup> This fact illustrates the validity of Michels' iron law of oligarchy,<sup>283</sup> but it must be viewed, however, in a broader perspective. Many collective bodies are dominated by the leader of the oligarchy whose decisions are frequently endorsed as group decisions. In many cases, however, when the balance of power is not stable, the accepted decision is not always that of the strong, but of

<sup>276</sup> Cases #4, 30, 44, 45, 99.

<sup>277</sup> Cases #7, 11, 38, 166.

<sup>278</sup> Cases #7, 30, 36, 99.

<sup>279</sup> Cases #272, 314, 318, 319.

<sup>280</sup> Cases #30, 44, 91, 107.

<sup>281</sup> Cases #4, 17, 30, 99, 104.

<sup>282</sup> Cases #2, 54, 200, 318.

<sup>283</sup> Merton, op. cit., p. 89.

another member who was able to present a final "draft" satisfying most and dissatisfying least.<sup>284</sup>

Differences between the two categories of decision-makers. As mentioned above, the deliberation of both of these categories of decision-makers consists of the adoption of an individual suggestion. This individual suggestion or tentative decision, however, is not the product of individual action alone, but the product of an individual action plus group interactions and influences. The common characteristics which these influences and interactions produce in the operational pattern of the individual and the collective decision-makers were presented above. A decision made by a collective body and a decision made by an individual show, however, differences as well as similarities. The most characteristic of these differences are:

1. In collective decisions social interactions are more formalized. This does not mean that all the interactions are formally presented but simply that a greater or smaller part of them is "legalized." For this reason collective decision-makers reflect a stronger tendency than the individual decision-makers toward: (1) social versus individual values,<sup>285</sup> (2) compromising decisions,<sup>286</sup> (3) indecision or "platonic" decisions when such a compromise is not achieved,<sup>287</sup> and (4) a slower production path.<sup>288</sup>

2. In collective decisions risk and responsibility are institutionalized and shared among more than one person. Collective bodies thus tend to: (1) undertake more risky decisions, (2) exhibit a greater amount of immunity from the fear of risky ventures, and (3) show a greater amount of irresponsibility or non fear of responsibility.<sup>289</sup>

3. In collective decisions the span of perspectives and tentative solutions taken under consideration is broader with the result that the substance of complex and controversial issues is subject to a deeper

<sup>284</sup>Cases #2,11,54,91,222.      <sup>285</sup>Cases #7,99,104.

<sup>286</sup>Cases #8,99.

<sup>287</sup>Cases #44,270.

<sup>288</sup>Cases #309,323.

<sup>289</sup>Cases #4,104,270,272.

analysis.<sup>290</sup>

It is evident from the above analysis that these differences include both advantages and disadvantages which counterbalance each other to a great extent. For example, while a collective body can undertake more risky decisions and, consequently, proceed to a solution when an individual hesitates, on the other hand, the decisiveness of such a collective body may become detrimental because of a lesser sense of responsibility<sup>291</sup> or because it may be turned into indecisiveness when conflicting social values or forces cannot be reconciled.<sup>292</sup>

Who is the decision-maker? The previous analysis is based on a thesis which seems to be paradoxical. Both the group and the individual were considered as decision-makers, and both were rejected on the same grounds. It was stated that while decisions are drafted by individuals, these decisions are not, however, products of their own free wills, but reflections of a multitude of influences, manifested through inter-personal interactions.

The above thesis is neither paradoxical nor incongruous with the empirical analysis of the process of organizational decision-making presented in this chapter and the following one. The fact that a decision-making process exists does not imply necessarily that this process can be identified either with one individual or one group. The biological body, for example, grows and evolves in a symmetrical and stable way through the effect of a multitude of forces, none of which are related to a particular individual, group, or central force. Likewise, organizational evolution through decision-making can be achieved in a symmetrical and progressive way without a central person or group to be identified as the decision-maker. The difficulty of conceptualizing an organizational product divorced from a specific producer is due to the tendency toward a personification of organizational phenomena and the concept of a decision assembly line controlled by an operator, or operators.

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<sup>290</sup>Cases #30,45,280.      <sup>291</sup>Cases #4,44.

<sup>292</sup>Cases #44,270.



## V. LOCUS OF DECISION

The above analysis indicated that the loci of decision-making in an organizational structure can be identified in the following three areas: (1) areas where decisions are initiated, (2) areas where decisions are formulated through inter-personal interactions, and (3) areas where decisions are formally endorsed (signed or ratified).

Although in the previous pages emphasis was placed on the dynamic character of organizational decision-making as a process of interactions and multivariable influences and reflections, it became evident that decision-making is not developed in flux. There are certain elements of organizational stability which can be considered if one wanted to "spot" the loci of the decision-making process and predict possible future developments in a given organization. These are:

1. The grid of the operating systems of loyalties and expectations. The formal hierarchy is the most important of these providing a pre-determination of the areas where decisions can be initiated, considered and endorsed.<sup>293</sup> Another system is that of professional groups, such as engineers and accountants. In case number 309, for example, department heads, rank and file, "champions" for the expansion of civil services rules, etc., formed distinctive groups of loyalties and expectations.
2. The various grids which overlay the inter-personal relations of an organization such as the social relations network, the communication network, the functional contacts network, the personalities panel, the values range, etc.
3. The institutional patterns of choice such as tradition, imitation, fashion, pragmatic experimentation,<sup>294</sup> etc.
4. The character of the organization-environment relationships which determines whether the decision-making system of a bank, for example, may be considered as a closed one in comparison with a public welfare agency. In a closed system the map of the decision loci is limited

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<sup>293</sup> Cases #2,7,42,103.

<sup>294</sup> Supra, pp. 194-95.

within the organization structure, while in an open system the loci of decision are extended outside the organizations and the whole decision-making process is more "social" in the sense that the span of interactions and, consequently of compromises, is larger than those of the previous system.<sup>295</sup>

As is explained in the next chapter, the basic characteristic of the organizational processes is their incremental development. Consequently, the above elements which have been classified as being in a stable status must be viewed neither as static nor as unchangeable. All of these elements are subject to change; but because change affects, in a given time, not the whole but a marginal area in an incremental manner, relative stability characterizes the decision loci structure in a certain time in a given organization.

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<sup>295</sup>Cases #8,22,23,44,99.

## CHAPTER VI

### POLICY-DECISION INTERRELATIONS

In the previous two chapters (1) policy and policy-making, and (2) decision and decision-making were subject to an empirical analysis on the basis of the research findings, and the conventional concepts on both subject matters were also critically examined in the light of these findings.

Although the analysis attempted in the previous two chapters illustrated that these terms are related and indicated the general character of their relationships, a more systematic examination and appraisal of these relationships is attempted in the present chapter. The issue of the policy-decision relationships is analyzed by means of the following three questions:

1. Can a generic classification be established for policy and decision issues?
2. What are the relationships of this generic classification, if any, with the remaining organizational processes?
3. What are the specific relationships between the processes of policy-making and decision-making?

#### I. THE GENERIC ELEMENTS IN POLICY AND DECISION ISSUES

##### The Conventional Concepts

As mentioned in Chapter IV, policy is considered, in the current literature on organization, as the prerequisite of every organizational decision: a guiding norm in choosing among alternative courses of action.<sup>1</sup> According to this conceptual scheme, organizational activities are developed on two levels with the first overlaying the second. The first level, policy, sets the goals and frames the activities of the organization. The

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<sup>1</sup>Supra, pp. 11, 75-76.

second level, decision, chooses the proper courses of action in an attempt to achieve the goals set up by the previous level. On the basis of the above distinction, policy is considered as a political or top management function, while a decision is viewed as an operation or task force activity. Chronologically, also, policy is conceptualized as preceding decision.

It is evident that the above concept views the cluster of the policy-making and decision-making phenomena as manifestations of a generic goal accomplishment process developed into two consecutive stages: the stage of goal setting (policy) and the stage of goal accomplishment (decision). This concept of a generic policy-decision process underlies the writings of both the traditional schools, i.e., the one which views a policy-decision dichotomy<sup>2</sup> and the other which believes in a policy-decision continuum.<sup>3</sup>

### The Research Findings

One generic process with two merging continua. The analysis of the collected cases, and the discussions which followed in the seminar meetings indicated that the concept of a two stage generic means-ends process is not satisfactory because in reality there are not two separate processes: the goal setting process (policy) and the means selecting process (decision). There is one generic process by which both goals and means are defined in a synchronous fashion.

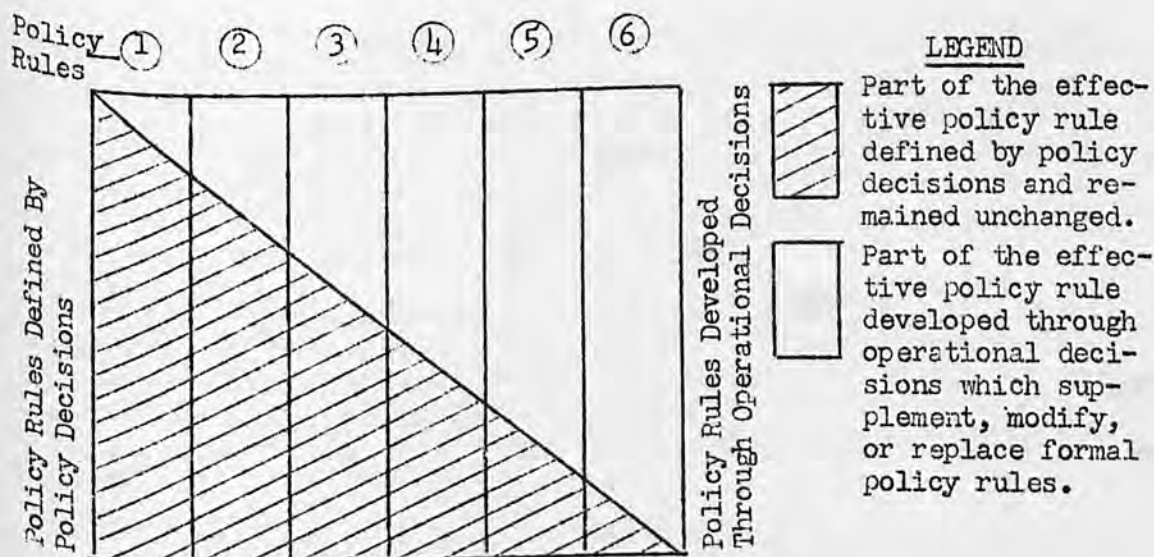
The analysis presented in the previous two chapters illustrated that policy-decision relations in actual organizational situations are not developed in a linear and stratified fashion resembling the industrial assembly line, but consist of two imaginary continua which are merged into a real one.

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<sup>2</sup>John M. Pfiffner, Organization: The Science of Hierarchy (Los Angeles: University of Southern California), p. 111 (Mimeographed); Woodrow Wilson, "A Study of Administration," Political Science Quarterly, 56:483, December, 1941.

<sup>3</sup>Ibid.; Paul Appleby, Policy and Administration (University, Ala.: University of Alabama Press, 1949), p. 15.

The policy rules continuum. As stated in Chapter IV, policy rules developed by policy decisions of the policy-makers in organizations are subject to continuous changes by the daily decisions made along the line of their implementation by the operating people.<sup>4</sup> While the original policy decisions remain formally unchanged, the operating or effective policy differs to a small or great degree depending upon the extent of modifications introduced by the operating people in their daily decisions or "practices."<sup>5</sup> Consequently, every policy rule consists of two parts. One is defined by the original policy decision or decisions and remains unchanged after its adoption. The other is developed by ordinary decisions which supplement or modify a part of the original provisions of the policy decision. The proportions of these two elements in every effective or applied policy rule are not constantly the same. If the whole body of policy rules of an organization is placed in an array on the basis of the magnitude of the proportions of each of these two elements, the following policy rules continuum can be hypothesized:

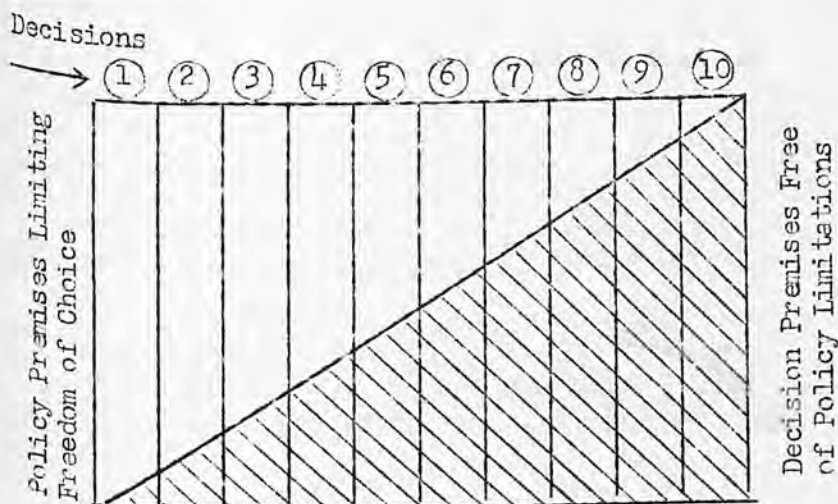


The decision continuum. The context of an operational decision can be divided, in turn, into two parts. One part is confined by policy rules, and another is developed by the decision-maker on the basis of premises free of policy limitations. Like policy rules, organizational decisions contain both of these elements in varying

<sup>4</sup>Supra, p. 90.

<sup>5</sup>Supra, pp. 83-86.

proportions, and a decision continuum can be hypothesized as follows:



The merged continuum of a generic decision-making process. Throughout the previous two chapters an interplay between policy and decision became conspicuous. Policy rules are developed either directly or indirectly through decisions,<sup>6</sup> and decisions, in turn, are framed to a small or great degree by policy rules.<sup>7</sup> Which of these two elements comes first is a question resembling the old story of the chicken and the egg.

The difficulty of many writers of organization in developing a satisfactory conceptual frame for analyzing the policy-decision interrelations seems to be due to their limited perceptions of the development of the organizational functions in a linear, or stratified, assembly line fashion.

The analysis presented in the previous two chapters indicated that there are neither two levels nor two stages of decision development, but there is a generic decision-making process through which both policy rules and operational decisions are poured out in a synchronous fashion.<sup>8</sup> A pure policy rule is an abstract norm without any functional significance unless it is identified with an operational decision, or decisions, which cause the rule to

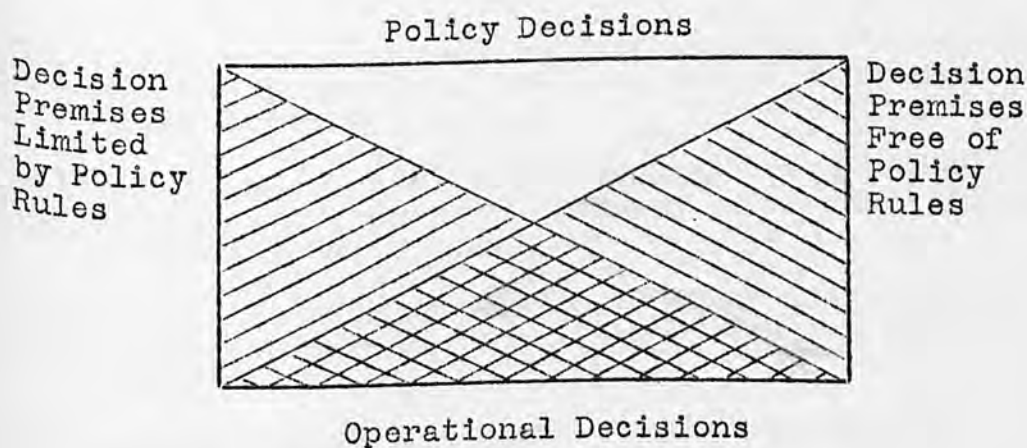
<sup>6</sup>Cases #7,30,54,113.

<sup>7</sup>Cases #162,222,240,278.

<sup>8</sup>Cases #2,8,38,44,103,104.

become effective. As disclosed in a previous chapter, there are policy rules only for "the book" and policy rules which are applicable, to a small or great degree, in operational decisions.<sup>9</sup> On the other hand, there are, very often, plain operational decisions which become ex post facto "policy landmarks" because of the phenomenon of administrative stare decisis.<sup>10</sup> Consequently, every policy rule has an area of final development left "blank" in order that it be completed by operational decisions. Likewise, the long chain of operational decisions results in a policy alluvion<sup>11</sup> by gradually adding, changing, supplementing, modifying, or replacing policy rules.<sup>12</sup>

This generic process of decision-making and the policy-decision interplay can be visualized by merging together the two continua mentioned above, i.e., the policy rules continuum and the decisions continuum, as follows:



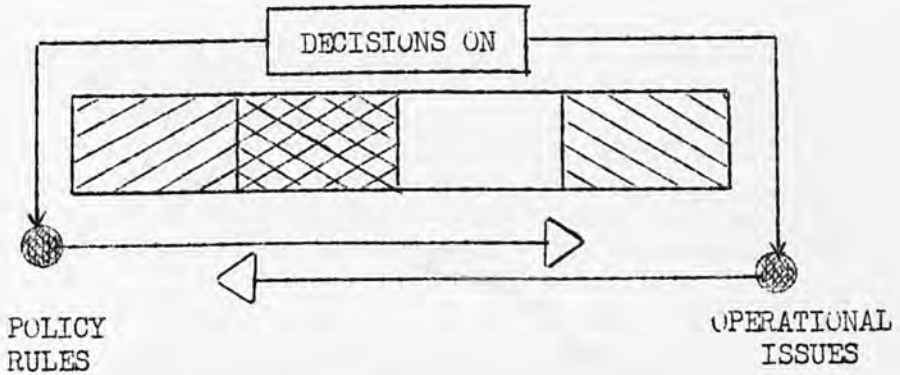
<sup>9</sup>Supra, pp. 83-84.

<sup>10</sup>Supra, p. 94.





<sup>11</sup>C. T. Onions (ed.), The Oxford Universal Dictionary on Historical Principles (third edition; Oxford: The Clarendon Press, 1955), p. 47, states that the term alluvion is used in law in order to determine "the imperceptible action of flowing water in forming new land."

<sup>12</sup>Supra, pp. 83-94.

As indicated from the above illustration, the generic process of decision-making contains the following four elements:



LEGEND

-  Policy rules (1) defined by policy decisions, (2) remaining untouched by operational decisions, and (3) restricting operational decisions.
-  Policy rules (1) modified by operational decisions, and (2) restricting operational decisions to the extent that they are not modified by them.
-  Policy alluvion by practice, i.e., policy rules formulated or accumulated by the chain of operational decisions or "practices."
-  Decision premises independent of policy restrictions.

As illustrated from the above analysis, each organizational decision, either setting a policy rule or solving an operational problem, contains both constant or unchangeable elements and elements shaped through the policy-decision interplay.

Classes of organizational decisions. On the basis of the above analysis, organizational decisions can be classified into the following three classes:

1. Policy decisions. Decisions setting up policy rules established for the purpose of guiding and framing



future organizational activities.<sup>13</sup>

2. Operational decisions. Decisions made to cope with specific daily problems without any further implication.<sup>14</sup>

3. Implied policy decisions. The above two classes should be viewed as the poles of a continuum rather than as two strictly distinguished classes. There are decisions between them which although not formally defined as policy decisions, become "policy landmarks" through stare decisis,<sup>15</sup> and vice versa, policy decisions which are not applied further than the specific issue which occasioned their development.<sup>16</sup>

## II. THE RELATIONSHIP BETWEEN THE GENERIC PROCESS OF DECISION-MAKING AND THE REMAIN- ING ORGANIZATIONAL PROCESSES

It is evident from the analysis presented in the previous chapters that an organization can live and be productive without any policy rule. Its activities could be guided through decisions which consider both means and ends simultaneously in every case. Indeed, many organizations operate without policy manuals or policy rules. This observation is congruous with the empirical concept of organization developed in this study according to which an organization is a multiple system of loyalties and expectations. Interactions within and between these systems of loyalties and expectations determine at a given time and in relationship to a particular issue both the goals to be accomplished and the means to be used.

Since the need for policy rules cannot be justified on the grounds of a necessary dichotomy of the organizational activities into goals setting and a means selecting, the question was raised as to why policy rules are frequently developed by both management and operating people. Is this an unjustifiable "fashion" or is it due to another cause different from the concept of the means-ends dichotomy?

<sup>13</sup>Cases #11, 54, 56, 99, 220. <sup>14</sup>Cases #17, 19, 81, 101, 114.

<sup>15</sup>Cases #23, 221, 236, 304. <sup>16</sup>Cases #104, 185, 270, 272, 323.

The answer to the above question lies in the dual nature of policy as command and agreement, mentioned in Chapter IV. As stated there,<sup>17</sup> policy rules tend to regulate conflicting systems of loyalties and expectations by providing a kind of stability and continuity by which conflicts are kept under control, and efforts are channeled toward productive ends. Consequently, the need for policy rules does not correspond to a necessary means-ends dichotomy but to a need for stability and continuity in the daily activities of the organization. In other words, the policy decision should be viewed as a part of the distinction between stability and change and not as a manifestation of a means-ends dichotomy.

Continuity and change as factors of the generic process of organizational evolution. Organization scientists face a serious conceptualization and synthesis problem in comparing the normative and the empirical models of organization. According to the conventional concepts, organizations are monocratic and unitary structures hierarchically organized and conditioned by the norm of the means-ends relationship--the law of objective. Empirical observations, however, disclose a pluralism in the component elements of organization including both stable and changeable elements. In an effort to reconcile and synthesize these antithetic elements organization scientists developed two conceptual frameworks, (1) the distinction between static and dynamic elements<sup>18</sup> and (2) the concepts of equilibrium and disequilibrium.<sup>19</sup>

<sup>17</sup>Supra, pp. 79-83.

<sup>18</sup>James Drever, A Dictionary of Psychology (Baltimore: Penguin Books, Inc., 1958), p. 74, states that this distinction derives its origin from the dynamic theory advanced by the Gestalt Psychology, "according to which dynamic conditions, rather than structural . . . , determine the processes taking place."

<sup>19</sup>James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, Inc., 1958), pp. 84-9, 109-110; William H. Whyte, Jr., The Organization Man (Garden City, N.Y.: Doubleday and Company, Doubleday Anchor Books, 1956), pp. 32-33, 40; Frank B. Miller, "Situational Interactions--A Worthwhile Concept?" Human Organization, 17:37-47, Winter, 1959; Gardner Lindzey (ed.), Handbook of Social Psychology (Cambridge, Mass.: Addison-Wesley Co., Inc., 1954), II, 877-920; William Foote Whyte, Human Relations in the Restaurant Industry (New York: McGraw-Hill Book Company, Inc., 1948).

The distinction between static and dynamic elements is not satisfactory because it is an artificial one lacking a standard criterion by which a differentiation can be made between static and dynamic elements. What is today a static and unchangeable element may become tomorrow a dynamic and changeable one, and vice versa. For example, in case number 309, the position classification system of the city government was a static element until the moment when it became a matter of consideration, change and controversy. In case number 220, the policy of a welfare fund, sustained through semi-compulsory contributions, was a static one over many years until it became a "hot" issue.

The concepts of equilibrium and disequilibrium have also aroused a great degree of controversy and dissatisfaction.<sup>20</sup> Organization theorists trying to conceptualize certain phenomena such as the tendency to act under conditions of maximum acceptance with minimum dissent, the tendency to seek for "normalization" versus maximization, the "sociability" of the organization actions, etc., borrowed from physics the term "equilibrium."<sup>21</sup> A standard dictionary includes the following definitions of equilibrium: (1) a state of rest due to the action of forces that counteract each other; (2) equal balance between any powers, influences, etc., equality of effect; and (3) mental balance.<sup>22</sup>

The term "equilibrium" as defined above seems inadequate to describe organizational phenomena disclosed by the research findings. First, a state of rest is not a normal organizational condition but only an exceptional one. Second, while this state of rest is considered as a functional and desirable element, it is obvious on the basis of the research findings that when such a state is achieved, the result is a stalemate and indecision.<sup>23</sup> Third, this concept is based on the assumption that all of the

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<sup>20</sup>Whyte, The Organization Man, loc. cit.

<sup>21</sup>Many psychologists use the alternate term of Homeostasis, introduced by the physiologist Cannon, "for the constant states maintained by physiological processes." Philip Lawrence Harriman, Dictionary of Psychology (New York: Philosophical Library, 1947), p. 164.

<sup>22</sup>Clarence L. Barnhart (ed.), The American College Dictionary (New York: Harper and Brothers, 1951), p. 406.

<sup>23</sup>Cases #44, 78, 107, 177, 223, 270.

organizational elements are in conflict each with the others, and this conflict results either in an equilibrium or disequilibrium which succeed each other in a continuous fashion. This is, however, an oversimplification of the whole picture of organizational conflict. For example, in case number 309 the conflicting forces over the issue of civil service classification were different from the conflicting forces over the issue of fire-police consolidation in case number 185. Since modern bureaucratic organizations face simultaneously many problems at a given time, it is obvious that many clusters of conflicting forces co-exist at the same time. Because of the fact that all of these problems are not necessarily related to each other, it is evident that a total synthesis of all of these equilibria into a catholic organizational equilibrium is an imaginary rather than a realistic perception.

Many theorists who use the concept of equilibrium in their theoretical constructs try to rectify these defects by adding that equilibrium does not mean rest or static state but changes without affecting the total balance.<sup>24</sup> This does not seem to solve the problem of the inability of the term, with its context borrowed from physics, to offer an adequate scheme for the conceptualization of this family of organization phenomena which are now classified under the term of equilibrium.

On the basis of the research findings, the state of affairs of an organization at a given time can be conceptualized as including two kinds of elements as follows: (1) elements which remain at a given time unchanged and stable, without being necessarily in equilibrium because they are not placed into interacting combinations; and (2) elements which are in flux or under consideration. These elements are the foci of inter-personal and intra-personal conflicts at this period of time.

Between these two categories there is not a standard rigid line of distinction, but organizations are characterized by a continuous metabolism between stable and changeable elements.

As has been pointed out, the basis characteristic of human activity is its marginal and incremental nature. Human beings cannot consider the whole range of all the past, present, and future relevant factors involved in

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<sup>24</sup>Chris Argyris, Personality and Organization (New York: Harper and Brothers, 1957), p. 23.

every decision or action and cannot attempt to articulate their activities with the mood and the path of concurring changes in the universe. Administrators do not create "situations." In other words, while an administrator can believe that many things might be wrong, and many things might need changes or improvements, nevertheless, he realizes that he cannot attempt all at once because of his computational and situational limitations,<sup>25</sup> and because the greater the attempted change the greater the anticipated resistance to change and controversy over the proper issue. As a result of this "realization," organization men have rationalized their activities and approach the problem of efficiency and rationality in a realistic and pragmatic way. Instead of following the grandiose suggestion of the rationality school for a reconsideration of the question of efficiency in every decision by analyzing the numerous ramifications of the total range of the means-ends combinations, and then selecting the best, they approach the issue of organizational efficiency by a method of consecutive improvements. They always leave open the question of efficiency, and they look for solutions which can gradually ameliorate an existing "situation."<sup>26</sup> As is illustrated in Figures 11 and 12, the decision-maker separates at a given time a number of problem-areas and attempts to "make things better" through consecutive decisions. For example, in case number 98, the director of the City Health Department might realize that many things were wrong. Instead of attempting a complete overhaul of the whole department, he attempted improvements through consecutive decisions. One among them was the change of the lines of communication between department heads and their superiors.

On the basis of the above analysis, it is obvious that the degree of improvements which an administrator can achieve within a certain period of time depends on the following three factors: (1) his ability in identifying areas needing improvements;<sup>27</sup> (2) his ability in setting the right priorities among them;<sup>28</sup> and (3) his competence in selecting solutions which have the greater "improvement increment."<sup>29</sup>

As disclosed, however, by the analysis of the cases,

<sup>25</sup>Ibid., Cases #4, 17, 81, 99, 105, 223, 236.

<sup>26</sup>Supra, pp. 181-83. <sup>27</sup>Cases #2, 11, 36, 54, 244, 245.

<sup>28</sup>Cases #17, 92, 244, 245. <sup>29</sup>Cases #2, 17, 36, 92, 247.

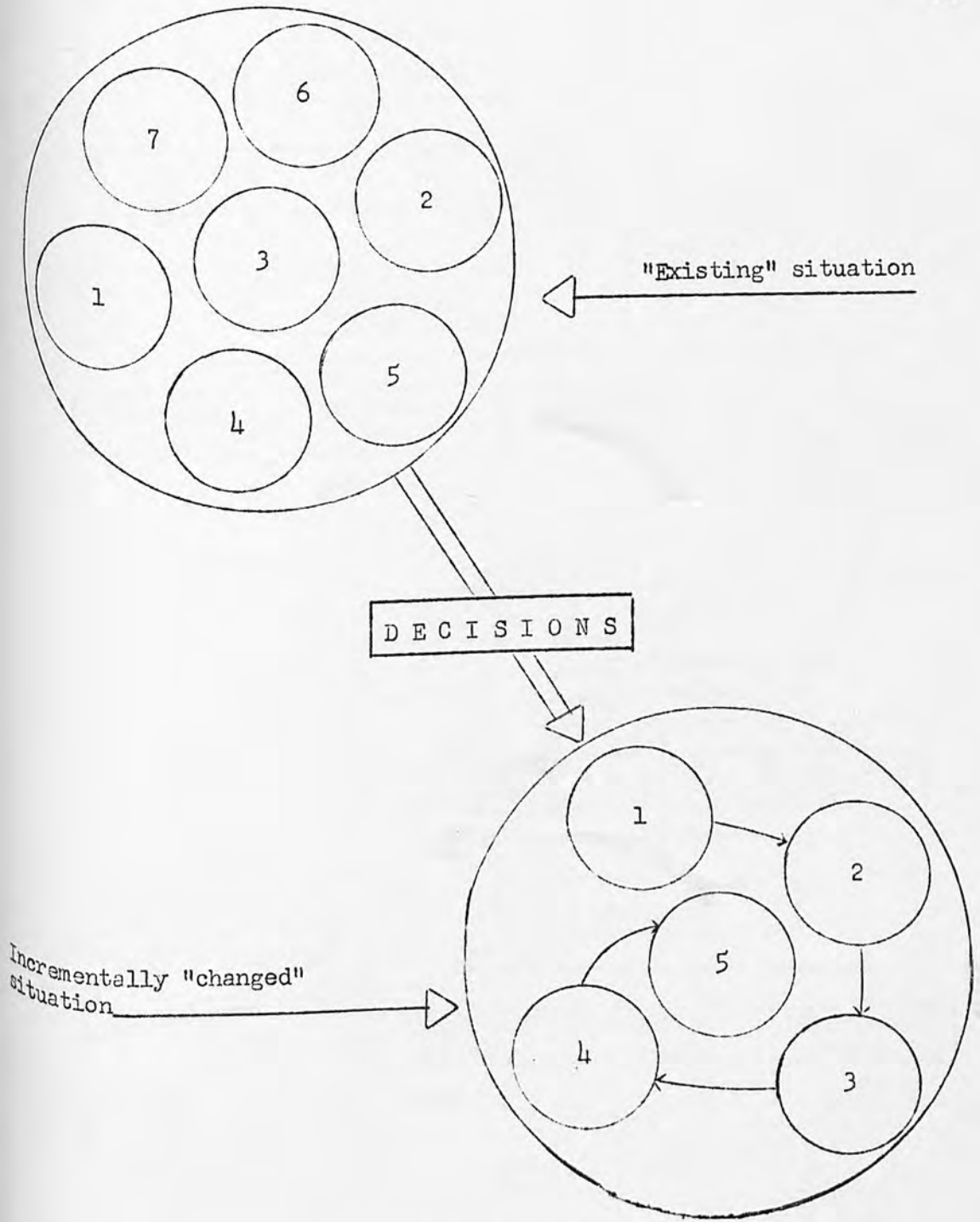


FIGURE 11  
THE INCREMENTAL EVOLUTION OF ORGANIZATION AS  
MANIFESTED IN THE DECISION MAKING PROCESS

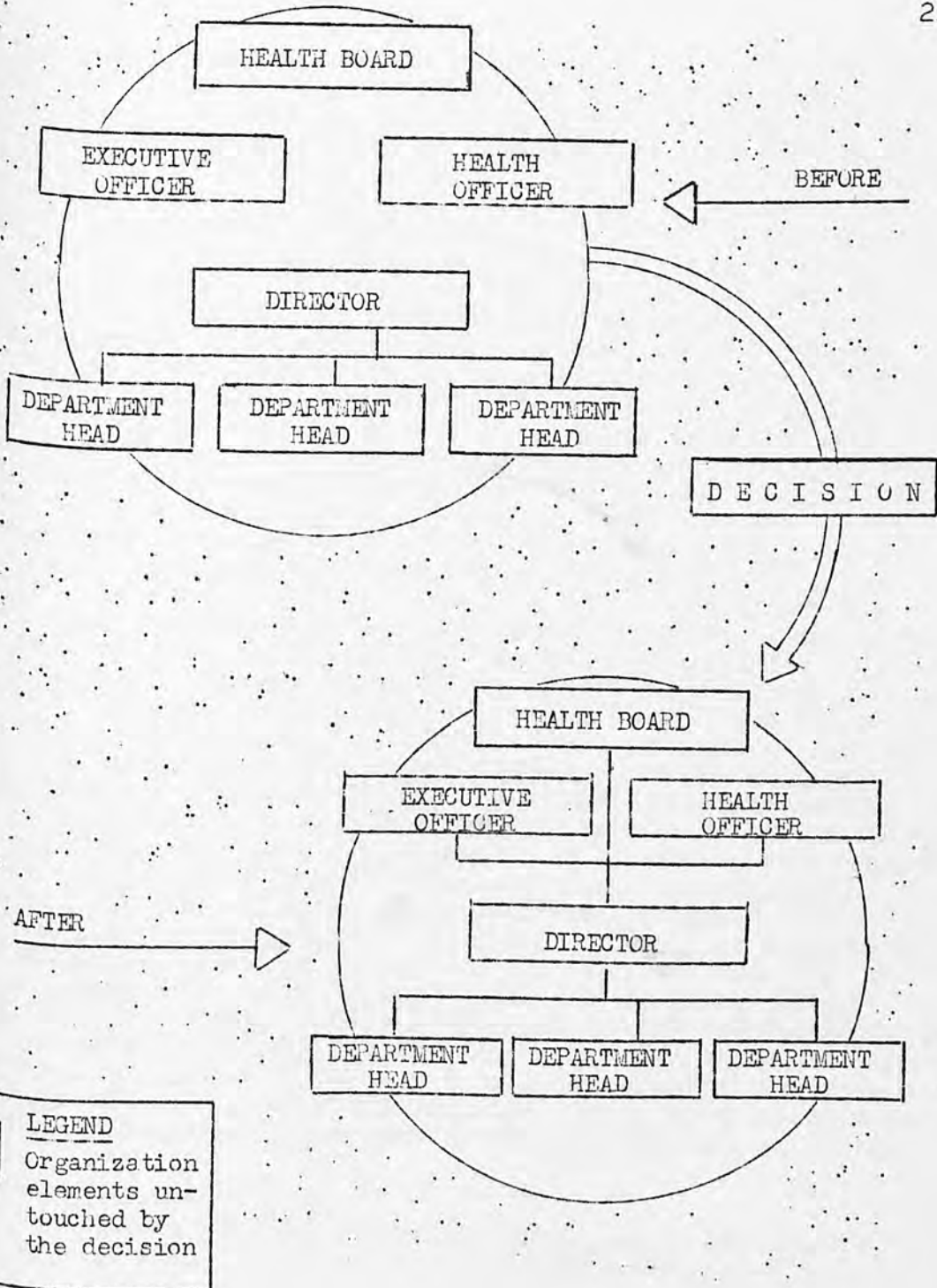


FIGURE 12

THE DECISION PROCESS IN CASE NO. 98

the ordinary decision-maker has very limited freedom to form the line of issues which should be considered at a given time, as well as to set up priorities among them. Problems emerge every day in an unpredictable and unscheduled manner. What has to be considered is not a matter of the decision-maker's will and analysis, but it is determined through the fermentation of the conflicting systems of loyalties and expectations within the organization and its environment. Contrary to the conventional concept, advanced by the classical school of rationality, that decision-making is a deductive problem solving process developed from general goals to more specific ones and from specific goals to particular means, the research findings disclosed that in actual situations organizational decision-making is overwhelmingly inductive.<sup>30</sup> About 80 per cent of the cases digested by Markey and Nicolaidis<sup>31</sup> were the results of problems "imposed" on the decision-maker by external forces rather than selected by him on the basis of a systematic analysis of the organization needs. Moreover, in the remaining few cases where the "selector" of the case was the decision-maker, himself, it is evident that his selecting process followed the pattern of consecutive steps depicted in Figure 12 instead of the pattern of a panoramic view of the whole picture of organization's efficiency. In other words, in most of the cases the real problem of the decision-maker consists of a "demanded or proposed change" to an existing situation. As illustrated in a previous part, a proposed or demanded solution may arouse a great degree of conflict and controversy depending on the various views and interests involved. In all of these instances two groups of forces are formed: one favoring the change either by supporting the proposed solution or offering a "better" one and the other group resisting to any change or at least to the proposed particular change. Because of the multidimensional character of conflicts and the fact that most of these proposed solutions emerge in a spontaneous and non-systematic way, it is obvious the need for a kind of regulation in this general process of change from an existing

<sup>30</sup>Cases #8, 17, 22, 44, 45, 48, 54, 65, 103, 114, 220, 221, 222, 223, 240, 241, 246, 249, 273, 276, 281, 284, 314, 315, 316.

<sup>31</sup>Beatrice G. Markey and Nicholas G. Nicolaidis, Selected Policy-Decision Cases (Los Angeles: University of Southern California Bookstore, John W. Donner Fund Publication No. 10, 1960).



situation to a new one. As stated in Chapter IV, the essence of policy is that it provides such a kind of regulation.<sup>32</sup>

### III. THE SPECIFIC RELATIONSHIPS BETWEEN POLICY-MAKING AND DECISION-MAKING

Within the framework provided by the preceding analysis, the policy-decision interrelationships can be delineated as follows:

1. There is a generic process of organizational evolution characterized by incremental and marginal changes. As a rule changes are developed in and affect only a small part of the organizational structure and process at a certain period of time.

2. Decision-making is the main but not the only manifestation of this organizational evolution. That which has to be changed and to what direction is designated through inter-personal interactions.<sup>33</sup> These inter-personal interactions are channelled and merged into groups through the formation of a continuous range of systems of loyalties and expectations. In the formation of these systems of loyalties and expectations, individual identifications are substantiated through individual decisions. These individual decisions, although very significant because they are the enzymes of the ensuing organizational fermentation leading to change, cannot be classified in a strict sense as belonging to the process of organizational decision-making. The process of organizational decision-making begins with the presentation of an individual decision in the forum of the organization in a form of a "bid" for a suggested or demanded change.<sup>34</sup> From this moment the process of organizational evolution is put into motion by being directed toward a certain area of the organizational structure and processes, and decision-making becomes the conveyor of change from the existing state to a new one. In this respect decision-making can be viewed as the main manifestation of this process of evolution. It must be noticed, however, that while organizational decision-

<sup>32</sup>Supra, pp. 77-82.

<sup>33</sup>Cases #44,45,65,99,220,223.

<sup>34</sup>Supra, pp. 171-72.

making substantiates this evolutionary process, it is not the only process through which evolution is developed and manifested. The decision-making process concurs with other organizational processes such as the process of interpersonal interactions, leading to the formation of systems of loyalties and expectations, the process of communication, etc. On this point, Pfiffner's concept of a decision-making syndrome in the general process of organizational evolution is more congruous with the research findings than Simon's concept of decision as the preface of every action.<sup>35</sup>

3. Since the initiation and development of an organizational decision are subject to multi-directional influences which are not under a central control or regulation, it is obvious that the process of organizational evolution can get out of any control. In such a case the need for some regulation is obvious. Thus, policy must be viewed as the regulatory part of the generic process of the organizational decision-making. Policy purports to keep change under control by delimitating the range and the direction of acceptable proposals and solutions as well.

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<sup>35</sup> Supra, p. 47.

## CHAPTER VII

### THE IMPLICATIONS OF THE RESEARCH FINDINGS IN THE STUDY AND THEORY OF ORGANIZATION

As mentioned at the very beginning, the ultimate objective of this research project was a dual one.

From a methodological point of view the research perspective was to test decision-making analysis as a research device and simultaneously to develop a workable method of analysis and interpretation of complex qualitative data, which, as a rule, are the raw materials of organization research.

From a theoretical point of view the research perspective was to outline a theory on organization formulated inductively and based entirely on empirical data.

This research project, being exploratory in nature and experimental in its methodological approach, was not expected to offer precise and quantitative data sufficient to build an "exact" theory on organization and proper research methodology meeting the minimum standards of the scientific method. It was expected, however,--and achieved to a great extent--that the research team could obtain insights into the major dimensions of the problem through a purely empirical and inductive approach, adequate enough to outline such a theory.

The present chapter is divided into two parts on the basis of this double perspective of the research project. The first part attempts to summarize the research findings in regard to the methodological problems of the research by critically examining the current methodological approaches to the study of organization, outlining a theory on the proper methodology in studying organizations, and evaluating decision-making analysis as an instrumental technique in organization research.

The second part is focused on organization theory. It attempts to critically examine the current theories on organization on the basis of the research findings and to outline a theory on organization.

## I. THE PROPER METHODOLOGY OF ORGANIZATION RESEARCH

### A Critical Appraisal of the Current Trends in the Methodology of Organization Research

The basic methodological approaches to organization research were outlined in Chapter II. In spite of many variations among them, the following common trends can be traced in a broad but essentially accurate outline.

Lack of ingenuity and imitative tendencies. The models of natural sciences are constantly viewed as the indisputable molds for the formation of the proper methodological approaches to organization research. This is conspicuous in many current readings which are characterized by a strong tendency toward "mathematization" and conversion of their stochastic models into mathematical ones.<sup>1</sup> In all this effort less attention has been paid to the question of whether or not the methodology of the natural sciences is adequate to cope with the research problems associated with the study and analysis of organization.<sup>2</sup> The notions of "accuracy" and "exactness" have been accepted as terminal values in organization research without qualification. Quantification has been considered as the cornerstone in the proper study of organization. According to Lord Kelvin's statement:

When you cannot measure what you are speaking about, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your

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<sup>1</sup>H. A. Simon, Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting (New York: Wiley and Sons, 1957); supra, pp. 23, 43-44.

<sup>2</sup>This problem has been pointed out by, among others, F.S.C. Northrop, The Logic of Science and the Humanities (New York: Meridian Books, Inc., 1959) and Vergilius Ferm, A History of the Philosophical Systems (Ames, Iowa: Littlefield, Adams and Co., 1958), p. 357.

thoughts advanced to the stage of a science, whatever the matter may be.<sup>3</sup>

On the premise that science means accuracy and exactness, and that accuracy and exactness cannot be achieved without quantification of data and quantitative statement of the inferences drawn from that data, organization scientists have vigorously attempted to develop a methodological pattern to meet the requirements of exactness, accuracy, and quantification by copying the methodology of the natural sciences.

Regardless of whether or not the perspectives of the natural sciences, i.e., accuracy, exactness, and quantification are the necessary components of a proper research methodology for the study of organization and whether or not the model of the natural sciences is the only and proper one to meet these requirements, the question remains of whether or not this model has been copied correctly by organization researchers.

As will be amplified in the following paragraphs, organization scientists, in order to achieve the self-imposed goal of quantification, have attempted a two-stage development: (1) the observation of only verifiable data which can be subjected to measurement, and (2) the conversion of their qualitative statements into quantitative ones.

In the first stage the question is how much of the experience relevant to the organization has been left outside empirical observation, because it does not meet the requirements of quantifiable verification.

In the second stage the question is whether the conversion of qualitative observations into quantitative statements is successful. It is true that content analysis, sociometric scales, etc., have enhanced the quantitative expression of social data. However, the issue remains as to whether all these efforts have achieved a comprehensive conversion of empirical qualitative observations into quantitative statements. The answer is rather negative. What these methods and particularly the content analysis seem to attain is extraction of the quantitative elements mixed in a complex qualitative statement or observation rather than

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<sup>3</sup>Quoted in Irwin D. F. Bross, Design for Decision (New York: Macmillan Company, 1953), p. 40.

conversion of the whole statement into a quantitative one.

Lack of proper foundations and misunderstanding of the functional use of the natural science models. As mentioned in Chapter II, the natural sciences and particularly physics and chemistry made their decisive upturn toward their advancement to the present stage of maturity from the time that they were able to identify their basic units of analysis, i.e., molecules and atoms, and to concentrate their observations and analyses on them.

Current organization research is still characterized by a lack of fundamental units and definitions. As mentioned in Chapter III, there is no agreement among scientists about the proper unit of analysis and their definitions.<sup>4</sup> Thus, the whole construct of organization research lacks an adequate foundation in spite of the impressive parade of theories and formulas.

Besides the lack of an adequate foundation, current organization methodology suffers from a superficial over-estimation of the quantitative and mathematical methods. There is an illusion about the relationships between mathematics and scientific advancement resulted from inadequate understanding of the real functions of mathematics. To the average man, mathematics is the powerful, sometimes "magic" instrument, which always opens new ways to scientific progress. This is a great mistake. Mathematics does not advance science; it only expresses scientific advancement, and the mathematical expressions of a scientific discipline cannot be better than the empirical knowledge on the properties and functions of the subject to which the mathematical expressions refer.<sup>5</sup>

In order to make this distinction more explicit it is necessary to classify briefly the functions of mathematics:

1. Symbolic language. Mathematics is a sort of

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<sup>4</sup>Supra, pp. 58-61.

<sup>5</sup>As J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1956), pp. 203-4, aptly points out: "Mathematics is an invention of man rather than a discovery."

language providing symbols for conveying descriptions of natural, artificial, or conventional units and expressing relationships among these units. One should not forget, however, that mathematics does not develop, but only conveys descriptions and relationships which have been previously discovered or defined. For example, the symbol: 1 gr. conveys the definition of the conventional weight unit. The definition was previously developed, and then it was converted into a mathematical expression. Not the mathematics but the empirical knowledge of the factors which were relevant to the concept of weight determined the suitability and preciseness of the symbol 1 gr. The Sophists, for example, ignoring these empirical laws theorized that the basic unit of the universe was water.<sup>6</sup> They could use for the expression of this unity--water--the symbol: 1 gr. With the mere conversion of their stochastic model into a mathematical one, this could not mean that any scientific progress was made. Today's physics, with advanced empirical knowledge on the subject, uses this symbol in order to express a more precise and accurate definition according to which 1 gr. is equal to "the weight in a vacuum of one cubic centimeter of pure water at maximum density,"<sup>7</sup> i.e., distilled water at a temperature of four degrees on a Celsius thermometer.

2. Models of thinking. Beyond the descriptive function, mathematics supplies the scientist with a set of models for the development of inductive or deductive reasoning through certain techniques and procedures by which the scientist can express and calculate interrelations and changes.<sup>8</sup> It has been observed that the infinite number of elements of the real world, their interrelations, their interactions, and the products of their interactions can be classified into broader categories on the basis of certain common characteristics of their interrelations or their developments. Mathematics offers ready-made models for the expression and calculation of such interrelations

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<sup>6</sup>Ferm, op. cit., p. 71.

<sup>7</sup>Webster's New International Dictionary of the English Language (second edition; Springfield, Mass.: G. and C. Merriam Company, Publishers, 1958), p. 1087.

<sup>8</sup>Guilford, loc. cit.

or changes. For example, mathematics offers the formula:

$$F = \frac{W \cdot h}{d}$$

where F = force  
 W = weight  
 h = height  
 d = slope distance

This formula designates how much force is needed in order for an object of a certain weight to be moved on a certain inclined plane which has a given height and a given slope distance. This formula is applicable to a myriad of problems where the same kind of conditions exists. It offers not only a comprehensive picture of the totality of the existing interrelations but an opportunity also (1) to study various possibilities of change, and (2) to identify any of these factors if the others are given. One should not forget, however, that mathematics did not discover this interrelation stated above, but was employed only to convey it into a symbolic model. Empirical observation and experimentation were the discoverers of the concept. On other occasions, as in projectiles, for example, the above formula was not able to convey the empirical observations and another formula had to be invented.<sup>9</sup>

The history of mathematics is an account of a continuous interplay between ready-made models and empirical observations. Very often the existing mathematical models were found to be inadequate to convey new empirical observations, and new mathematical models were developed in order to meet the demands of empirical theories. As is pointed out in a standard reference book, "The history of mathematical thought . . . is closely related to the history of the development of the whole science."<sup>10</sup> Euclid's geometry, for example, stated that through a point outside a given line it is possible to draw only one line parallel to the given line. This was accepted over many centuries as a postulate without proof. Many efforts were made to discover such a proof, but all of them were fruitless until the beginning of the nineteenth century when three mathematicians, Gauss, Lobachevski and Bolyai independently

<sup>9</sup>Northrop, op. cit., pp. 22-34.

<sup>10</sup>Funk and Wagnalls Standard Reference Encyclopedia (New York: Standard Reference Works Publishing Company, Inc., 1959), p. 5907.



demonstrated that this basic postulate of Euclidean geometry was incompatible with the empirical observations of space geometry. Consequently, they developed the new non-Euclidean geometry on which modern physics, and particularly the theories of relativity and wave propagation, are based.<sup>11</sup>

3. Prediction. There is another illusion also that mathematics can predict future developments. Mathematics does not solve problems of prediction, but conveys empirically discovered laws and offer a medium of prediction calculations on the basis of the empirically defined laws.

4. Preciseness. To laymen preciseness and mathematics are synonymous terms. This false concept is a result of inadequate knowledge of functions of mathematics. Mathematics cannot be more precise than the empirical laws which it conveys. Mathematical preciseness ranges proportionally with the preciseness of the empirical laws to which it refers. For example, the expression:  $(A+B = 12)$  is one of perfect preciseness. If A is equal 7, then B is equal 5. On the contrary, the expression:  $(A+B > 12)$  is a non precise one. If A is equal 7, B can possess infinite number of values between  $(+5)$  and  $(+\infty)$ .

Lack of comprehensiveness and particularistic fallacies. The strong adherence to the idea that the science of organization cannot be advanced unless it will be able to develop a body of knowledge based on quantitative statements and expressed in mathematical formulas copying exactly the methodological model of the natural sciences resulted in a strong tendency to direct organization research only to that side of the empirical subject which offers an opportunity of quantifiable data.

This separation, however, of quantifiable and non-quantifiable aspects of organization life leaves a dangerous vacuum in terms of a comprehensive approach to the study of organization as one entity, because such a separation is based on an arbitrarily developed criterion wherein the significant is considered identical with the quantitative and vice versa. This is a false imitation of the methodology of the natural sciences. The natural sciences never confined their observations to that part of natural phenomena which was open to measurement, but they have constantly kept their observations on the total

<sup>11</sup>Ibid., pp. 3958-59.

picture. In the history of the natural sciences, empirical observation preceded the development of units of measurement. When the existing measurement units were not capable of coping with the problem of measuring observed phenomena, new units and devices were invented, but the empirical observations were never confined to only that part which was subjected to measurement by means of existing units and devices. In organization theory, on the contrary, values, although significant and observable in every aspect of human life, were left outside the area of analysis, because organization scientists did not possess units and instruments for their measurement.

In spite of the methodological slogan frequently repeated in the current writings that "the whole is more than the sum of its parts,"<sup>12</sup> the study of organization is also more and more confined into the study of parts. This particularistic tendency is reflected in current research approaches which lack a methodological edifice for the study of organization as a totality. A frequently repeated research pattern, for example, is one where an administrative unit, or units, is selected for the study of certain aspects of organization such as human relations, leadership, productivity, etc. These units are classified into more efficient and less efficient; questionnaires are distributed among rank and file and attitudes of leadership, or toward leadership, are recorded. Then, on the basis of an elaborated analysis of the recorded responses a theory is advanced that effectiveness and the pattern of leadership are related and that the pattern of leadership which results in higher productivity is one which consists of such elements as participation, consultation, democratic management, etc. The theory, confined to its empirical evidence on which it was built, is accepted, of course, as true without qualification. With such a methodological approach as many true theories on productivity and leadership can be advanced as the number of studies undertaken. The question in terms of a general theory is not, however, whether the description of a certain pattern of leadership in an effective organization was true or not but whether the discovered pattern of leadership has a causal interrelation with productivity in any organization regardless of time and place. How can theory, confined to a limited number of data as above, be sure that productivity and democratic leadership, for example, are interrelated in a cause-effect fashion and are not syndromes of another undiscovered causal relationship. In the previous chapter,

<sup>12</sup>Supra, p. 12.

for example, it was found that human behavior in an organizational setting consists of a chain of consecutive identifications of loyalties and expectations. On the other hand, it was found also that administrative behavior is conditioned by the dynamics of the total grid of these conflicting loyalties and expectations. In cases where an administrator wanted to serve two masters, i.e., to reconcile and compromise his behavior in more than one system of conflicting loyalties and expectations, he was more democratic.<sup>13</sup> It was found also that the co-existence of many conflicting systems of loyalties and expectations does not result necessarily in lower productivity but may have the reverse effect.<sup>14</sup> Thus, in the above cases, it was found that the character of the conflict between the co-existing systems of loyalties and expectations was the cause of both higher productivity and democratic leadership, while in other cases it was found that although the existing pattern of loyalties and expectations resulted also in higher productivity, the identification of the administrator with a different set of loyalties and expectations permitted him to lead a productive system in an authoritarian way.<sup>15</sup>

The above example illustrates how the particularistic tendencies in research methodology can misguide the student of organization in the discovery of the real cause of the phenomena which he observes. This is more evident in the puzzling problem of productivity and democracy. The study of a certain organization, or organizations, discloses, for example, that democratic management leads to higher productivity and autocratic management to lower. Then, the general conclusion drawn is that the highest degree of productivity can be achieved only under democratic management. However, in many cases it has been disclosed that autocratic management leads also to higher productivity.<sup>16</sup> Which of the two theories is true? Both are true in terms of the empirical evidence upon which they were based, but, on the other hand, neither was true in terms of a general explanation of the productivity phenomenon because, by confining these theories to an external part of the observable

<sup>13</sup>Cases #105,223,230,273,309.

<sup>14</sup>Cases #17,172,220,268.

<sup>15</sup>Cases #11,56,107,177.

<sup>16</sup>Cases #107,177.

subject, the inner cause, i.e., the phenomenon of interrelations between productivity and systems of loyalties and expectations could not be discovered.

Superficiality in "exactness." The aspiration of the social scientists to develop an "exact" science of human behavior, i.e., a body of mathematical formulae by which future human behavior could be predicted in the same manner as an astronomer predicts the future positions of the planets, has resulted in a superficial scrupulosity in preciseness and quantification. Social scientists, being anxious to follow Lord Kelvin's suggestion, i.e., to express in numbers only what they speak about,<sup>17</sup> pay more attention to the quantitatively expressed incidents rather than to the general meaning of these incidents or the character of their interaction. This leads, very often, to paradoxical developments where the study of organizational dynamics turns out to be expressed in such a "petrified" quantitative form that in actuality it becomes a study of organizational statics. An often repeated research method is one where answers, dimensions, or factors found in a particular research are presented with a score index or a percentage. For example, the findings of a survey on the leadership patterns in a number of organizations studied are often presented in a form similar to the following: personal qualities of the leader score 7, situational influences score 5, participation scores 3, etc. The social researcher sometimes spends enormous and very meticulous efforts in order to arrive at such a quantitative statement. As is explained in a later page, however,<sup>18</sup> these scores may have no general significance beyond the particular empirical evidence with which they are associated. The same dimensions may be found to have a different score in a second study covering a different group of organizations or even the same organizations at a different time. As is pointed out later in the study, the observable and measurable aspects of the organizational phenomena are the results of a multitude of forces in interaction which change direction and magnitude during the process of interaction.<sup>19</sup> Consequently, their instantaneous measurement and the resulting still snapshot have no significance. The facts of primary significance are the character of the

<sup>17</sup>Supra, pp. 223-24.

<sup>18</sup>Infra, pp. 233 ff.

<sup>19</sup>Infra, pp. 250-51.

process, the laws which govern it, and the factors which affect the process in time--not their incidental magnitude or direction at a given moment.

It became evident also from the analysis of the cases gathered, that the data which the analyst uses for his inferences and measurements are to some extent secondary in the sense that they are different from the "real happenings." Interviewers and interviewees screen and color, either consciously or unconsciously, the described facts which differ not only from description to description, but also from what really happened.<sup>20</sup> Thus, the validity of these "reported" facts should be accepted as relative and not absolute and, consequently, their presentation in absolute numbers and scores should be considered as superficial and misleading.

#### The Essentials of a Proper Methodology in Organization Research

The above analysis and the remarks on methodology made throughout the previous chapters of this study have indicated the basic elements which seem to be essential for a proper methodology in organization research. These essentials are outlined below.

Definite units of analysis. As indicated in Chapter III, current methodology on organization research lacks adequate identifications and definitions of the basic units of organization analysis.<sup>21</sup> As is illustrated later in this chapter,<sup>22</sup> because of the lack of such units, organization scientists cannot cope satisfactorily with the problem of organization complexity and are not able to separate the significant elements in an observable complexity. Drawing an analogy from physics and chemistry, it can be stated that contemporary organization scientists know much about the functions and properties of the various compounds of their empirical subjects but they still ignore the units--atoms and molecules--which compose these compounds.

Precise definitions of technical terms. Many terms

<sup>20</sup>Northrop, op. cit., p. 40.      <sup>21</sup>Supra, pp. 58-61.

<sup>22</sup>Infra, pp. 242-43.

of the ordinary language used in organization analysis, as well as technical terms borrowed from other disciplines, were found to be inadequate to convey the essence of the phenomena for the description of which they have been employed.<sup>23</sup> Preciseness cannot be attained through "mathematization," i.e., the unqualified conversion of all the stochastic premises into mathematical symbols, but it must begin with accurate descriptions and definitions of the observable phenomena.

Comprehensive approach. Although the slogan that the scientist should look on the whole forest and not on certain trees, is very often repeated in the social sciences, the impetus toward quantification, however, has resulted into particularistic tendencies. As stated previously, current research methodology has advanced many techniques for the distillation of quantifiable elements from complex developments, but this methodology falls far behind the area of analysis and theorization of the total picture of organizational phenomena where quantifiable and non-quantifiable elements are merged. The difficulties in converging the data included in the collected cases into general statements, pointed out in Chapter III, illustrated the need for more comprehensive methodological approach in organization research.<sup>24</sup>

Critical empiricism. The concept that the significant factors will be disclosed quantitatively by the data, themselves, through frequencies of occurrence, correlations, and scores has fostered a strong tendency toward overemphasis of the quantification techniques in organization research and atrophy of the critical and dialectic schemes for analysis and generalizations. As mentioned previously, the research findings disclosed that the data with which the analyst deals are subject to many abstractions between the time and place where they occur and the time and place where the analyst handles them. Consequently, quantitative statements drawn from these data must be viewed as relative indicators rather than as absolute measurements or strict terms of mathematical equations. In other words, "Quantification" should not be used at the expense of "sophistication" or as a substitute for it. To this end the empiricism of the organization

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<sup>23</sup>Supra, pp. 195-98, 213-14.

<sup>24</sup>Supra, pp. 58-64.

researcher should be critical and evaluative rather than inventorial and computational.

Comprehensive randomness. As mentioned above, the research findings and the ensuing seminar discussions disclosed that the data are subject to a multitude of consecutive abstractions and very often distortions from many sources, such as weakness of the human memory, unwillingness of the people to disclose the real facts, differentiations in perceptions, and emotional attitudes. It became evident, for example, that certain interviewers had a consistent tendency to emphasize certain aspects of organizational phenomena while others had neglected them, although all had used the same questionnaire form and had received the same instructions.<sup>25</sup>

In order to cope with this problem, statistics have developed the concept of randomness. This concept, however, is usually limited in the area of organization research to the randomness of the cases or the organizations selected for analysis. The critical examination of this problem during the analysis of the cases and the seminar discussions resulted in the suggestion that the concept of randomness should cover the whole range of research activities and should be expanded to randomness of the interviewers, interviewees and analysts in terms of past experience, professional status, education, etc.

#### The Instrumental Value of Decision-Making Analysis in Organization Research

As stated in the next part of this chapter, the central thesis developed from the analysis of the decision

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<sup>25</sup>This is conspicuous in the one hundred cases digested by Markey and Nicolaidis. The following is a classification of some of these cases on the basis of the researcher who reported the cases:

- Researcher No. 1. Cases #240, 241, 242, 244, 245, 246, 247, 249.
- Researcher No. 2. Cases #250, 251, 255, 257.
- Researcher No. 3. Cases #220, 221, 222, 223, 225, 226, 227, 229.
- Researcher No. 4. Cases #315, 316, 318, 319, 323.
- Researcher No. 5. Cases #98, 99, 162, 163.

cases is that an organization is a system of interacting forces which system evolves through consecutive developments marginal and incremental in nature.

On the basis of the above thesis, it can be stated that decision-making analysis provides an excellent frame of reference for the study of organization, because it offers penetrative insights into both the process of interactions and the process of the marginal evolution.

The above statement, however, does not terminate the controversy over the proper unit of analysis in organization research and does not exclude also other units or frames of reference which might meet the same requirements.

On the basis of the analysis of the research data, decision-making generally seems to be a vague term which needs clarification before it can be evaluated as a research instrument. Organizational decision-making can be perceived by a broad range of conceptual schemes. One of these schemes could be a decisions file containing the texts of a number of selected decisions. Another could be an all embracing study covering all of the factors involved from the time when the seed of a decision was planted in the inner sanctum of the human psyche to the time when the decision was implemented by the lowest organizational echelons.

The approach of this study was of the second case. It is evident, however, that it hardly can be insisted that the research was confined to analysis of the decision-making process alone. As indicated in the preceding discussion, the analysis of the decision cases led to the examination of the whole spectrum of organizational activities. Decision-making cannot be separated from group dynamics, communication networks, personalities of the participants, etc. Reversing the glass, it can be said that the study of communication, for example, can lead to the analysis of the same spectrum. As the analysis of the decision-making led to the study of communication patterns, the study of communication, in turn, will lead to the study of decision-making.

As mentioned in another part of this study, there is a generic process of organizational evolution into which many processes, including decision-making, converge, overlaying each other. Simon's idea of a linear decision-action relationship<sup>26</sup> seems to be unsatisfactory to

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<sup>26</sup>Supra, p. 45.



delineate the curvilinear or circular character of the process of organizational evolution. Pfiffner's concept of a decision syndrome seems to be more realistic and accurate although as stated it implies also a rather static delineation of the decision-making process.<sup>27</sup>

The superiority of the use of decision-making as a frame of reference and as a starting point in organization analysis lies in the fact that it is the most documented and publicly exposed organizational activity which offers, for this reason, more clues for organizational research than any other activity. In addition, decision-making is the billboard upon which the manifestations of the forces which underlie organizational activities are posted.

## II. ORGANIZATION THEORY

In the second part of this chapter the implications of the research findings toward the theory of organization are analyzed. This analysis is focused on three areas: (1) a critical appraisal of the current theories on organization, (2) an account of the essential foundations of a proper theory of organization, and (3) an outline of organization theory drawn on the basis of the research findings.

### A Critical Appraisal of the Current Theories on Organization

The critical appraisal of the methodology in organization research attempted above is basically a criticism of organization theory, since the first is the foundation of the latter. In addition to this, the research findings and the critical analysis of the conventionally accepted conceptual schemes attempted in the previous chapters revealed that many fallacies underlie current theories on organization. The most significant among them are outlined below.

Inferiority complex. Most of the writers on organization and those in the social sciences generally, suffer from this complex. When outlining, opening, developing, or

<sup>27</sup> Supra, p. 47.

concluding their theses, they felt it necessary to pay a tribute to the physical sciences for their spectacular achievements and to express their grief because the social sciences, and particularly organization theory, have not achieved such a fabulous degree of quantification, preciseness, and predictability as the physical sciences. A few of them take the offensive and try to show that the science of administration can claim certain achievements by virtue of which it need feel no shame for its backwardness in quantification, "mathematization," preciseness, and accuracy.<sup>28</sup> The majority of them, however, are defensive and admit that the social sciences fall far behind the physical sciences in the field of scientific progress and believe that this condition can be overcome by copying as fast as possible not only the methodology but also the spirit and philosophy of the physical sciences.<sup>29</sup> Whether such a comparison is either necessary or appropriate is receiving less attention.

Lack of originality and imitative tendencies. As mentioned in the beginning of this study, organization theory is a relatively new discipline. When it came into the center of man's interest, other disciplines had achieved a stage of maturation; and their prestige had reached some eminence. Organization scientists searching for terms to conceptualize their observations and thoughts and suffering from the fixed idea of the superiority of the natural sciences to a great extent borrowed terms from other disciplines, mainly physics and mathematics. Economy, efficiency, communication, rationality, equilibrium, variable, vector, factor, etc., are examples. Even today this practice of term-borrowing is in wide use and is reflected by terms such as homeostasis,<sup>30</sup> entropy,<sup>31</sup>

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<sup>28</sup> Dwight Waldo, Perspectives On Administration (University, Ala.: University of Alabama Press, 1956), pp. 1-25.

<sup>29</sup> Ibid.; Stuart Chase, The Proper Study of Mankind (New York: Harper and Brothers, Publishers, 1956), p. 37; supra, pp. 4, 12-13, 22-25, 223.

<sup>30</sup> John M. Pfiffner and Frank P. Sherwood, Administrative Organization (New York: Prentice-Hall, 1960), p. 298.

<sup>31</sup> Ibid., p. 297; Norbert Wiener, The Human Use of Human Beings (revised edition; New York: Doubleday Anchor Books, 1954), pp. 28-29.

cybernetics,<sup>32</sup> feedback,<sup>33</sup> etc. This approach had both advantages and disadvantages. It has the advantage that it offers to the theorist ready made conceptualization models. However, it has also the disadvantage that it confines his thinking within certain conceptual schemes which limit the expression of his thoughts into pre-fabricated molds. As indicated in the previous page, many of these borrowed terms have been found inadequate to provide an appropriate conceptual scheme for the description and analysis of the relevant organizational phenomena.<sup>34</sup>

Inadequate conceptual schemes. The inferiority complex, the strong imitative tendencies, and the lack of originality have resulted in the development of a theoretical edifice characterized by a mosaic of conceptual schemes lacking a central core and an overall design.

A comparison between theoretical works on organization and theoretical works in other disciplines discloses a striking difference. In mathematics, physics, chemistry, etc., the student can find in any and all of the current books the same terms, units, descriptions and formulae. In organization theory, on the contrary, the student is very often surprised by the fact that one term or scheme may be considered in one text as the cornerstone of organization analysis, while the same term or scheme may be ignored completely by another book without the writer's feeling obliged to offer any explanation for this ignorance. It can be stated, on the contrary, that it is quite fashionable today for an author to be interdisciplinary, independent, and novel.

The very notion of an interdisciplinary analysis of the organizational phenomena means that the implications of the findings of other related disciplines toward organizational phenomena should be taken into account by every organization theorist. In final analysis, however, this notion has taken a different path. Today's organization theory lacks an integrated theoretical edifice. Terms,

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<sup>32</sup>Ibid.

<sup>33</sup>Ibid.; Pierre de Latil, Thinking by Machine (Cambridge, Mass.: The Riverside Press, 1957), pp. 47-55, 112-116.

<sup>34</sup>Supra, pp. 180, 195-98, 213-16.

analogy models, and conceptual schemes are assembled from various disciplines without a central reference design of its own. If one wanted to present a general account of the current theories on organization, he could make easily a voluminous inventory of terms, ideas, and concept, but he could not be able to present a synthesis of all these concepts dominated by a great variety of unrelated conceptual schemes borrowed from almost all the branches of science.

Another strong tendency conspicuous in many writings on organization is toward independence and novelty. Many writers put on paper their thoughts or present their research findings without taking the painstaking task to cross-examine all these new ideas with the concepts and findings of other studies on the subject. This is an interesting as well as paradoxical development if the fact is taken into account that while these scholars urge the average decision-maker to make a comprehensive analysis covering the whole range of all the relevant factors of his decision, they, themselves, found it either impossible or impractical to apply the same standards to their own tasks. Instead of applying what they preach, they copy in their methodology the pragmatic approach of the operating administrators which consists of dealing always with a selected part instead of a given total.

Misconstrued behaviorism and operationalism. The strong tendency of many organization scientists to consider physical science as the paragon of all the social sciences<sup>35</sup> has caused a dominating orientation toward positivism, operationalism, and behaviorism. Because of the fact that "the behaviorist insists that all the technical terms of his field are defined in terms that refer to what he, himself, the scientist, immediately observes,"<sup>36</sup> and because of the tendencies toward independence and novelty mentioned above, organization theory today is full of definitions and conceptual schemes which hardly can be brought together under a common denominator.

This misconstrued application of the physical science models can be illustrated if the glass is reversed, and behaviorism and operationalism, as known in the social sciences, are applied to the physical science. Let it be supposed, for a moment, that a chemist wanted to develop

<sup>35</sup>Ferm, op. cit., p. 357.

<sup>36</sup>Ibid., p. 485.

an empirical and operational concept of iron following the same methodology of the social scientist. First, he should prepare a questionnaire including questions such as what is iron? What are the characteristics of this subject? How, when and where is it used? etc. Second, he should distribute this questionnaire to a selected sample of people such as blacksmiths, plumbers, housewives, engineers, etc. Third, he should gather, classify and analyze the returned answers. Fourth, he should subject his findings to various tests of significance and reliability. Finally, he could come out with a definition like this:

Iron is a solid matter, mostly gray in color, extracted from certain minerals, which is applied to a great variety of uses such as house construction, furniture, utensils, etc. It can be bent and hammered when it is heated to a point that it becomes red.

A more "fashionable" definition could include some elements of quantification by breaking down its use in percentages as, for example, house construction 65 per cent, furniture 15 per cent, etc.

Physics and chemistry, however, did not follow the above path. Empirical observations and operational definitions were definitely very important factors in their development. Nevertheless, the cornerstone of their progress was not the collection of observations without qualification but the development of a central theory of matter and energy on the basis of which the relevance of all these observations, definitions, and conceptual schemes was cleared and their dialectic synthesis was achieved. Moreover, this central theory was not developed in length only, i.e., by assembling relevant to the theory observations, but was developed in depth also by relating the observable phenomena in the construct of a general theory and by relating, in turn, the construction of this general theory with the knowledge about the basic units of analysis and measurement, i.e., atoms and molecules.

With such an approach the definition of iron developed by physics and chemistry is quite different from the hypothetical definition developed above by applying the empiricism and operationalism of the social science. First, what is usually called in ordinary language "iron" is an entirely different thing from the term "iron" in chemistry. As chemistry defines it: "Pure iron is a bright, silvery-white metal, with melting point  $1535^{\circ}$  C., boiling point about  $3000^{\circ}$  C., specific gravity 7.86, and

hardness ranging from 4 to 5. It forms ferrous compounds in which it has a valence of two and ferric compounds in which it has a valence of three. It is soft, malleable, and ductile."<sup>37</sup> Second, this pure iron is different from the commonly observable commercial iron. "Commercial iron invariably contains small amounts of carbon and other impurities which alter its physical properties, and the mechanical properties of iron are considerably improved by the further addition of carbon and other alloying elements."<sup>38</sup> It is evident from the above analysis that the concept of iron, as has been developed in physics and chemistry, could never be advanced to the present stage of accuracy and preciseness if a crude empiricism and operationalism of a social science fashion were applied without any qualification. A brief historical account of how physics and chemistry arrived at the definition stated previously will illustrate how their empiricism and operationalism has been misconstrued by social scientists. The historical account of this development has been as follows:

1. Iron of the so-called today commercial type, i.e., various compounds of pure iron and carbon, was known in Egypt from about 4000 B.C., and it became, since that time, a matter of observation and study concern.<sup>39</sup>
2. About 400 B.C., the Greek philosopher Democritus on the basis of empirical observations, logical analysis, and intuitive thinking, arrived at the conclusion that all matter is composed of single, indivisible atoms, which are indestructible and qualitatively alike.
3. Over centuries men were content merely to speculate about atoms until the middle of the nineteenth century when the English scientist John Dalton developed his Atomic Theory, according to which: (a) all matter is made up of unit particles called atoms; (b) the atoms of a particular element have the same weight, or at least an average weight characteristic of that element; atoms of different elements have different average weights; (c) in chemical reactions whole atoms, never fractions of atoms, combine or separate, or change places; and (d) when atoms combine with other atoms they do so in one or more whole-number ratios which are usually small.<sup>40</sup>

<sup>37</sup>Funk and Wagnalls Standard Reference Encyclopedia, p. 5025.

<sup>38</sup>Ibid.

<sup>39</sup>Ibid.

<sup>40</sup>Edward Mack, Jr., Textbook of Chemistry (second edition; Boston: Ginn and Company, 1956), pp. 27-28.

Dalton based his theory on empirical observations, mainly on his studies on the properties and composition of gases. Nevertheless, his success cannot be claimed as the sole result of empiricism and operationalism but it is evident that his empirical observations were guided and screened through a central theory of composition of the matter developed through a complex mental process of critical observation, logical analysis and intuition.

4. Democritus and Dalton's atomic theories guided physical scientists to direct their observations into the basic units of their analysis, i.e., the atoms and molecules. With the guidance of these theories they were able to disregard all the irrelevant factors and concentrate their attention on the composition of these basic particles. Color, usages, derivation, etc., all these factors which an empiricism of the social science fashion could regard as basic components because of a high degree of correlation or frequency of occurrence, were disregarded as irrelevant on the basis of this central atomic theory.

5. On the basis of Dalton's atomic theory and logical analysis, chemists developed the basic classification scheme according to which all kinds of matter which are observable in the real world are either chemical compounds or chemical elements. An element was defined as "a substance made up of one kind of atoms only."<sup>41</sup> Compounds are different compositions of two or more elements.<sup>42</sup> Nearly a million compounds have presently been identified as made of less than a hundred elements.

6. Physicists and chemists, concentrating their attention on the study and observation of these elements, were able not only to discover the basic characteristics of these elements such as melting point, valence, specific gravity, etc., but to "clear" the findings of their observations from unrelated factors although these factors might show high correlations and frequencies of occurrence.

Drawing analogies from the above analysis, it can be said that today's organization theory and generally the social science have entered a race of empiricism and operationalism by observing, describing, classifying, and measuring the million organizational compounds without, however, either knowing or attempting to know the less than one hundred elements which consist of the organizational

<sup>41</sup>Ibid., p. 28.

<sup>42</sup>Ibid., p. 26.

matter, and form under various combinations these compounds. Social scientists dominated by the notion that the facts themselves will reveal through frequencies of occurrence, correlations, and concurring or converging trends the significant components of their operational definitions and empirical theories strive for scientism and objectivity with the fallacious perception that their approach is based on the paragon of the physical science, while, as illustrated above, they have miscopied and misconstrued the asserted empiricism and operationalism of the physical science. It is evident in terms of the example of the definition of iron that the lever of scientific progress in this case was not a crude empirical observation alone but the converging result of empirical observation, logical analysis, and Kantian intuition.<sup>43</sup>

Philosophical backwardness leading to a headless construct. The fallacious overemphasis on objectivity, behaviorism and operationalism mentioned above has resulted in a strong tendency against theoretical and philosophical questions in organization research. Organization scientists, being anxious to develop quantitative theories based on verifiable data, have shown a strong dislike toward "idealizations," and philosophical "meditations."<sup>44</sup> Organization scientists do not feel any need to integrate the phenomena of organizational behavior with the generic process of human existence and to develop a branch of organization philosophy by which the perspectives of organization theory could be articulated with the philosophical foundations of mankind, inasmuch as they are concerned with the development of quantifiable and specific theories in such areas as communication, decision-making, small groups, etc.

Under the strong impetus toward demystification, quantification and positivism, the rejection of any thesis which is not supported by empirically observable and verifiable data was saluted as the beginning of scientific progress in the realm of the social science. This positivism was accepted as the enlightenment which the social science received from the physical science and which

<sup>43</sup>"Kant regarded intuition as the portion of a perception that is supplied by the mind itself." Funk and Wagnalls, op. cit., p. 4960.

<sup>44</sup>To avoid "excessive preoccupation with 'ideal' or 'desirable,'" Herbert A. Simon, Donald W. Smithburg, and Victor A. Thompson, Public Administration (New York: Alfred A. Knopf, Inc., 1950), p. ix.



enlightenment was expected to bridge the gap in progress between the social science and the physical science. This orientation, however, has resulted in a situation where today's organization theory knows too much about the compounds of organization but so little about its basic elements. The cause of these uneven developments between the general and the particulars in organization theory and research is due to an erroneous interpretation of the role of empiricism in the development of the physical science. As mentioned in previous parts of this study empiricism can claim a part of the most significant developments in the physical science in comparison with the part which is due to the contributions of the critical and philosophical mind of the physical scientists who projected their theses far beyond the available, observable, and verifiable knowledge at their times. The atomic theory of Democritus, Dalton's atomic theory mentioned above, Prout's theory of atomic weight, quantum theory of Niels Bohr, the development of the non-Euclidean geometry are a few of the many examples where the physical science made decisive steps toward progress by combining empirical observation and experimentation with a broad philosophical orientation. It is interesting to note here that Dalton presented his atomic theory by a treatise entitled: A New System of Chemical Philosophy.<sup>45</sup>

In organization theory, on the contrary, the inferiority complex, the imitative tendencies, and the narrow and misconstrued behaviorism, which dominate the thoughts of the contemporary organization scientists, have resulted both in a philosophical backwardness and the misplacement of the organization theory.

Taylor, who is considered either the father or the forerunner of scientific management, insisted on the thesis that his theory was a mental revolution and a new philosophy covering the whole range of all the human problems relevant to the moral and material amelioration of the human life.<sup>46</sup> However, his successors, under the influence of a narrow pragmatism, abandoned the further inquiry and advancement of the philosophical issues involved in his creed and placed almost exclusive emphasis on the technical aspects of Taylorism, i.e., time and motion study, procedure manuals, etc. Current organization theory lacks

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<sup>45</sup>Mack, loc. cit.

<sup>46</sup>Supra, pp. 3-4.

badly philosophical treatises within the context mentioned above.

Today's organization theory, placed under the asserted philosophy of the physical sciences positivism and dominated by a narrow pragmatism, rejects any question of good and bad or what ought to be, but it confines itself only to the question of what is the case.<sup>47</sup> It is obvious, however, on the basis of both a logical analysis and critical observation of the data included in the selected cases that the core of organization analysis consists of the following three "ought" questions:

1. How can large numbers of men be brought together and cooperate for the achievement of common ends?
2. How can this be done on a conscious (rational or best) rather than a traditional or conventional way?
3. Which is the best way to organize these men in such a manner as to make the maximum contribution toward the common end?

The above questions, which have a place in any of the current books on organization, are nothing else but the central three questions which dominate Rousseau's political theory. This indicates that the proper place of the philosophical basis upon which the study of organization should be located is in the area of political theory and philosophy and not in the area of the physical science, because both are focused on the same question of how men can act and interact in a social setting toward the accomplishment of common goals.

The inferiority complex and a narrow empiricism have misled the organization behaviorists to consider organization theory as a poor fellow-traveler of the physical sciences and to uproot it from its native soil of political philosophy. As has been pointed out by many observers of the contemporary social problems, the most characteristic trend of our era is the domination of the individual by bureaucratic organizations, i.e., impersonal systems where belongingness is conditioned by secondary group associations.<sup>48</sup> During the eighteenth and nineteenth centuries

<sup>47</sup>Simon, Smithburg, and Thompson, op. cit., p. 22.

<sup>48</sup>Noel P. Gist and L. A. Halbert, Urban Society (third edition; New York: Thomas Y. Crowell Company, 1950), p. 264; Pfiffner and Sherwood, op. cit., pp. 13-14; supra, pp. 19-20, 114.

the state was the dominating figure in the space between the individual and the universe. Consequently, the state became the focus of all the issues related with the questions of improving the conditions of human life, and political theory had flourished. Today, when organization has emerged and dominates the space between the individual on the one hand and the state and the universe on the other, it is evident that the center of man's interest has shifted to a great extent from the area of political theory to the area of organization theory. The average contemporary man has greater interest in the organization chart than on the constitutional chart. The success of Whyte's book, The Organization Man,<sup>49</sup> is an indication that while modern society is deeply concerned with the relationships between organization life and the moral and material progress of mankind,<sup>50</sup> contemporary organization theorists confine their thoughts to particularistic theories and admire more specific mathematic formulas, such as those included in Simon's Models of Men rather than broad philosophical questions such as those stated above.

The lack of a philosophical creed and the misplacement of the foundations of organization theory are reflected in the inability of this theory to provide a synthesis of its empirical observations. Confined by the idea that its role is limited to discover, through observation and experimentation, the laws of human behavior in order "to understand (and then predict and control) human behavior,"<sup>51</sup> it has left out of its analysis all the "ought" questions of control. The human relations movement, for example, illustrates the stalemate and dead-end into which many empirical theories on human relations have been led because of the lack of broad philosophical schemes to solve the "ought" questions of human manipulation, democratic management, loyalty to the owner or loyalty to the people, social and organizational equilibrium, etc.

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<sup>49</sup>William H. Whyte, Jr., The Organization Man. New York: Doubleday Anchor Books, 1956.

<sup>50</sup>Ibid.; Harlan Cleveland, "Dinosaurs and Personal Freedom," Saturday Review, 42:13, February 28, 1959.

<sup>51</sup>Chris Argyris, Personality and Organization (New York: Harper and Brothers, 1957), p. 4; cf. p. 114 n.33; Simon, Smithburg and Thompson, op. cit., pp. ix, viii, 19, 22.

## The Essentials of a Proper Theory on Organization

The critical appraisal of the current theories of organization attempted above has indicated already the essentials of a proper theory on organization. In the following lines a brief re-capitulation of those essentials is presented.

Three levels of theorization. The theoretical edifice of the science of organization as a whole should be advanced in a three level development.

The first level should include theories advanced on the basis of empirical observations limited in space and time. The methodological approach of these studies should be that of positivism. Contemporary organization scientists have been very prolific in this area, although the value of their achievements can be questioned in view of their limitations mentioned above.

The second level should be devoted to the development of a general theory on organization. Such a theory should be based on the universals of organization, and must be broad and general. A theory of this kind will not offer practical guides, suggestions, or models for the practitioners but it will provide a general framework for the theorist, the experimentalist, and the field researcher to guide their scientific endeavors, to articulate their specific and particular research designs with a central one, and to screen the findings of their empirical observations in terms of significance and importance. The validity of a theory of this kind will be based on generalizations and projections of the common trends of a great range of empirical observations rather than on a direct and restricted evidence drawn from a particular in time and place study or studies. In other words, such a theory will provide frames of reference but not formulae of computation. In engineering work, for example, the engineer who designs the construction of a bridge does not apply the atomic theory in his computations but he uses specific formulae and theories. He has ready made indexes about the expansion of various materials under various temperatures, their stresses to various pressures, etc. These specific theories and indexes are not direct deductions from the general theory of matter and energy, and, moreover, their advancement is not always parallel with the advancement of the general theory. Bridge construction, for example, was not affected by the revolutionary

developments of the general theory of matter and energy which followed Einstein's special theory of relativity inasmuch as by the advancement of specific studies in the field of bridge construction. However, this general theory of matter and energy provided a broad framework and opened new horizons for new specific studies which lead to spectacular achievements and affected either directly or indirectly the art of engineering where bridge construction is a part. In the same manner, a general theory on organization should be expected to offer neither ready made solutions to everyday managerial problems, nor practical guides to operating administrators, but only a general framework providing a basic scheme for dialectic analysis of the whole spectrum of issues and problems in organization theory and research.

The third level of organization analysis and theorization will be the philosophical. Studies on this level should be devoted to the study of the relationships between the general theory of organization and the moral and material bases of the human life. Studies of this kind will be based more on projections and critical generalizations than on narrowly interpreted empirical observations. Like the religious and political movements of the past centuries, these philosophical treatises should not deal with the specific issues of everyday problems, but they should provide both mass consciousness on certain general trends which underlie the daily organizational issues and normative models for social and organizational reforms. Although Plato, Hobbes, Locke, Rousseau, Marx, etc., did not solve any of the specific problems of their times, they provided, however, a mass awareness of certain central issues which provided, in turn, the basis for the ensuing developments in the social and political life as well as the technological progress. Because of the fact that modern bureaucratic organizations expand day by day their domination of social and individual lives, it is time that the philosophical questions mentioned in previous parts<sup>52</sup> be studied in a more systematic way.

Appropriate terms and conceptual schemes. As illustrated throughout the various previous parts of this study, many of the terms and concepts used today in organization theory were borrowed from other disciplines, and are inadequate to define and describe with accuracy and realism the organizational phenomena. Then, organization theory

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<sup>52</sup>Supra, pp. 3-4, 16-21, 113-15, 118, 161, 245.

needs to develop terms and concepts on its own. These terms and concepts should be technical and conventional in order to meet the requirements of preciseness and realism. As indicated, for example, in Chapter IV, the term policy is used in ordinary language to convey a variety of different factual situations.<sup>53</sup> In some cases it was used to convey a superior's directive while in other cases it was employed to define the formation of a group standard. Organization theory cannot be advanced to a higher level of preciseness unless it will develop accuracy in its very foundations. As mentioned previously, the term iron in ordinary language covers a great variety of ferrous and ferric compounds. Chemistry, however, developed technical definitions for each of them which were accepted by all chemists by convention and which definitions are the basis of chemistry's preciseness. Organization scientists should follow their example.

#### Models for inductive and deductive reasoning.

Throughout the previous pages of this study, the need for reasoning and conceptualization models in organization analysis became conspicuous. Such models, borrowed from physics, mathematics, chemistry, biochemistry, etc., were used in many cases. It became evident, however, that most of these models did not provide a satisfactory medium for a realistic delineation and conceptualization of the observed organizational phenomena.<sup>54</sup> Organization theory has to advance its own models of analysis and theorization.

Accuracy of statistical approximations. The impetus toward quantification and accuracy combined with the admiration for the absolute mathematical formulae of the physical sciences have inspired many organization scientists to discover the laws of human behavior and convey them into mathematical formulae in order that the managerial echelons, or maybe the advanced computers of the future, will be able to predict and control human behavior in their respective posts. One should not forget that while the physical sciences can predict exactly the position of the moon years from today, they cannot predict, but with approximation and a large percentage of probability the weather of tomorrow, although all the relevant

<sup>53</sup>Supra, pp. 72-73.

<sup>54</sup>Supra, pp. 213-15.

laws and the prediction data are given.<sup>55</sup> The reason is that while in the first case the predictable fact is the result of a single, constant and one directional factor-- gravitation; in the second case the final outcome is the effect of a multitude of interacting factors which do not have either constant magnitude or direction or both. Many of these factors compensate each other and the net result is the converging effect of those factors which do not offset each other and which factors, being different in time and place, determine the final result.

As indicated in previous parts of this study, organizational phenomena are the results of many interacting forces changeable in magnitude and direction. Consequently, the laws of organizational phenomena are comparable with the meteorological laws. Prediction is based on many "ifs" and on a multitude of interacting forces which change both direction and magnitude during the time of interaction. A theory on organization could not be but a theory of trends and approximations or, in other words, a theory of statistical measurements and projections. As indicated in Chapter V, organization decision-making is the result of many interacting forces which change both direction and magnitude during the time of interaction. A theory on organization has to identify these forces, to study their effects, either as single units or as vectors, on the final product, to analyze the various combinations among them and, finally, to develop an overall picture of their impact on decision-making. As indicated in a previous part, an organization is a complex system of overlapping grids, such as the power grid, the communication grid, the panel of personalities, etc. These grids were found to exercise varying effects on decision-making. The power grid, for example, was found to exercise great influence on certain organizations and in certain decisions, while the same grid was found less important in other organizations or, sometimes, in the same organization but in different time or issue. Consequently, preciseness in prediction could not be but inversely proportional to the distance in space and time. A study of decision-making in an organization at a given time could identify with great accuracy the forces and the magnitude of their effect

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<sup>55</sup>As Funk and Wagnalls, *op. cit.*, p. 5998, aptly state, "So many variables are involved in the preparation of a weather forecast that complete accuracy is nearly impossible. Forecasts for small areas covering comparatively few hours can, however, usually be made with great accuracy."

on certain decisions in a manner that could indicate how decisions are expected to be made in the next few days. The same data, however, may be obsolete for that kind of prediction for a greater distance in time as, for example, after two or three years. The same can be stated for the application of the findings of the analysis of a certain organization, or organizations, in prediction problems of another organization or organizations. The preciseness of prediction will be expected to be lesser as the distance in time, location, and kind of activity increases.

The degree of preciseness and predictability of the laws of organizational phenomena will be different for the various levels of theorization mentioned above.

In the levels of organization philosophy and general theory the "laws" will be very general and abstractive. Since these laws will express the organizational evolution in terms of universality, it is obvious that these laws will represent average trends and not absolute numbers. The real developments in individual organizations will not be identical with these trends or their lines of regression, but they will fluctuate above and below these trend lines forming zones of deviations.

In the level of specific studies the accuracy of the "laws" could be greater and the width of the zone of deviations narrower.

In the level of a particular organization the process of its evolution can be delineated and measured with a greater degree of accuracy and prediction of behavior on particular issues. It should be mentioned, however, that, although studies of this kind will be very useful, they could not provide a direct medium for the operating administrator to solve his daily problems. The role of meteorologist should be recalled here. He has in his disposition a general meteorological theory according to which "the broad general patterns of circulation in the atmosphere [are] caused by three factors: the warming effect of the sun; the rotation of the earth; and the friction between the atmosphere and the rotating earth."<sup>56</sup> He knows a number of certain specific theories as, for example:

Equatorial and tropical regions of the earth receive more solar radiation than do the poles, hence the air in the tropics is warmer than polar air. . . . Because

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<sup>56</sup>Ibid., p. 5995.



air flows from regions of high pressure to regions of low pressure there is a general drift of air in the upper part of the atmosphere from the equatorial regions to the poles, and at the same time cold polar air drifts toward the equator near the surface of the earth. The north-south or meridional circulation of air, however, is complicated by the effects of the earth's rotation.<sup>57</sup>

The general meteorological theory and the specific ones like this mentioned above provide the central pattern upon which the meteorologist bases his prediction. Unlike, however, the astronomer who can predict precisely the positions of the planets at any time of the future and who has ready-made and standard charts of planetary motions, the meteorologist has to prepare every day his weather map in order to forecast the weather of the next day.

Like the meteorologist, the administrator has to prepare for every day and every case his forecasting map by:

1. Using the framework of a general theory on organization.
2. Enlightening his thoughts, observations, and computations by the "laws" of specific theories applicable to his case.
3. Revising continuously his forecast maps and plans for action on the basis of the observable changes in magnitude and direction of the interacting forces. For this purpose he should know not only the patterns or "laws" of organizational behavior, but also he should know the techniques of observing, measuring, plotting in his maps the magnitude and direction of the forces which are in interaction as well as computing at a given moment and issue their anticipated final effect.

### An Outline of a Theory on Organization

The outline of organization theory presented below is based on the perspective of a general theory on organization fulfilling the requirements of the second level of

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<sup>57</sup> Ibid.

theorization mentioned previously. The organizations to which this theory refers are the modern bureaucratic institutions, i.e., organizations formed on secondary group associations and which organizations cannot be identified as being the image of certain individual, or individuals.

The outline presented below is limited to the inquiry of the following three questions:

1. What is the nature of organization?
2. How does an organization operate and evolve?
3. Under what conditions does an organization develop its highest degree of effectiveness and efficiency?

The nature of organization. On the basis of the preceding analysis, an organization can be defined as a group, or groups, of people placed in interacting combinations, whose interactions are conditioned by a set, or sets, of alleged loyalties and expectations.<sup>58</sup> The term interaction is used with the meaning of mutual influences among the participants of an organizational decision or action. Through such interactions the members of an organization exchange information, ideas, suggestions; exercise command or compulsion; and generally attempt to influence the decisions, actions and behavior of their fellowmen with whom they interact. This does not imply, necessarily, that conflict is the inevitable product of these interactions, although often this may be the case. It also does not mean that all the participants modify their behavior proportionally to the intensity, magnitude, and direction of these interactions. Structural arrangements, personalities, and normative models play a parallel and important role.

The above definition deviates from many conventional definitions of organization. The most important deviations are about:

1. The notion of a common purpose. As indicated in a previous part of this study, there is neither general agreement nor common perception among the members of organization about the very goals of organization.<sup>59</sup> It

<sup>58</sup> Supra, pp. 137-143.

<sup>59</sup> Supra, 83-86, 121-122, 143.

is an unqualified abstraction to assume that people join modern bureaucratic organizations in order to achieve common ends. People are accepted in these organizations on the expectation that they will be able to perform with loyalty certain task or tasks. People, in turn, join an organization with the expectation to receive certain inducements because of their association with the organization. Such inducements are salary, intrinsic job satisfaction, social status, etc. Differences in the perceptions of these loyalties and expectations develop tensions and conflicts which characterize organizational life and condition the process of inter-personal interactions among the members of the organization through which organizational activities are shaped.<sup>60</sup>

2. The perception of cooperative action. The idea of common objective has been projected to the point that an organization emerges when two individuals join their efforts in order to accomplish a commonly desired objective.<sup>61</sup> Such a definition could describe pretty well the nature of primitive systems of collective action. Today, however, the concept of purposive cooperation toward the accomplishment of common objectives can be used for the definition of brotherhood, but hardly can be stated as a realistic delineation of the modern bureaucratic organization. As stated previously, the essence of the organizational activities is evolution through inter-personal interactions. In most of the cases the organization product was not the result of cooperation, but, on the contrary, the result of inter-personal conflicts and interactions.<sup>62</sup>

3. The idea that the definition of organization should include things, technology, memory,<sup>63</sup> etc. Although these elements are omnipresent in every organization, they do not enter, however, as variables in the generic organizational process which evolves independently of their

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<sup>60</sup>It should be noted, however, that participation in organizational activities is not a mere "give-take" bargaining, but it is heavily infused with values, role, perceptions and behavioral norms. Cf. supra, pp. 17-20, 149, 157-61.

<sup>61</sup>Supra, p. 18.      <sup>62</sup>Supra, p. 93 n.104.

<sup>63</sup>John M. Pfiffner, Organization: The Science of Hierarchy (Los Angeles: University of Southern California), pp. 3-6.

changes in magnitude. For example, while the process of organizational evolution was alike in cases number 44, 65, 105, 107, 223, 265, and 266, the "things," technology, memory, etc., were completely different and, evidently, their magnitudes did not affect the character of the process.

Although the interacting forces within an organization have changeable magnitude and direction, and these changes affect, in turn, the final organizational product, organizations are not in a perpetuating flux; but they maintain over certain periods of time a number of relatively stable elements. As stated previously, organizations consist of multiple systems of loyalties and expectations. These loyalties and expectations are formed either on long-range perspectives,<sup>64</sup> or on short ones emerging on the occasion of specific problems and issues.<sup>65</sup> The concept of the formal hierarchy, for example, is based on a long range and stable perspective of predetermined sets of loyalties and expectations (roles). In case number 309, department heads, supervisors, employees, etc., formed stable groups distinguished on the basis of differentiations in their loyalties and expectations. These systems of loyalties and expectations can be classified into two categories: vertical and horizontal. Vertical systems are developed along the hierarchical lines and tend to supplement, modify or replace the patterns of interaction established by the formal hierarchy. Horizontal systems of loyalties and expectations are formed on the basis of homogeneity of common perspectives and interests. Engineers, lawyers, accountants, etc., tend to identify themselves with distinctive systems of loyalties and expectations formed around common interests and perspectives. Both vertical and horizontal systems can be either permanent or temporary. In case number 99, there were identified two stable systems of loyalties and expectations distinguished on the basis of common perspectives. One was formed on the basis of the interests of a group of low economic status which demanded expansion of the city's health services, and the other was formed around the physicians in private practice and the citizens of higher economic status who demanded elimination of the health services. In case number 309, there were identified stable systems of loyalties and expectations as well as temporary ones. There were stable systems formed by department

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<sup>64</sup>Cases #22, 98, 99, 185, 220, 278.

<sup>65</sup>Cases #17, 185, 267, 285.

heads, supervisors, employees, etc. On the occasion of the discussion of certain issues, however, temporary systems emerged either on a new basis or by the tenuous merger of pre-existing stable systems.

Hierarchical, vertical, horizontal, permanent, and temporary systems of loyalties and expectations cross, overlap, or overlay each other at a given time. The points of their junctures form the foci of the power-authority network of the organization. Because of the fact that these systems of loyalties and expectations are organizations in themselves, they have their own communication grids, values, norms, and patterns of behavior. These grids, into which the distinctive systems of loyalties and expectations are subdivided, also cross, overlap, or overlay each other, and their junctures become the foci of the respective grids of communication, values, etc., of the organization viewed as a whole.

A long-time controversy in the field of organization theory has been over the issue of structure versus group dynamics.<sup>66</sup> The classical school in organization theory approaches the study of administration as an analysis of the organization chart--structure. On the other side, sociologists and groupists lay almost exclusive emphasis on group dynamics--process. Both of these concepts have their merits in terms of logical analysis as well as empirical evidence. Indeed, no chart can delineate the real picture of what is going on or what is expected to come in the future in any organization. Group phenomena determine the finality of every organizational activity. On the other hand, however, no organization exists without any kind of structure or hierarchical arrangements. In many cases the research findings disclosed that informal groups not only tend to be formed on hierarchical patterns, but to copy and be identified with the formal hierarchy.<sup>67</sup> The formal

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<sup>66</sup>Structure: the composition, arrangement of component parts, and organization of a complex whole." James Drever, A Dictionary of Psychology (Baltimore: Penguin Books, Inc., 1958), p. 280; "Dynamic Theory: an aspect of Gestalt Psychology, stressed by Koehler, according to which dynamic conditions, rather than structural, in the sensory and central fields, determine the process taking place in these fields." Ibid., p. 74.

<sup>67</sup>Cases #7, 17, 98, 220, 246, 323.

hierarchical status of an individual affects very much and determines to a great extent his position and role in terms of loyalties and expectations associated with the membership in the informal group.<sup>68</sup>

On the basis of the previous analysis, the question of structure versus dynamics seems to be placed on a wrong basis. In reality, there is no question but that organizations can be visualized as both structure and dynamics. The structure of an organization should not be visualized, however, as a rigid gridiron but should be viewed as a diagram of movable lines of regression formed around the points of inter-personal interactions. Although these structure lines are subject to change and are exposed to a multitude of stresses and pressures from the interacting systems of loyalties and expectations, they remain relatively stable because of the marginal and incremental character of the organizational evolution.

The most important among these structural lines are the lines of the hierarchical pyramid which resemble the formation lines in the football game because the "players," i.e., the interacting members of the organization, are placed across these lines. Because of the fact that these interacting forces tend to offset each other and to form combinations about the middle of the distance between their centers, the importance of the hierarchical arrangements which set up the original loci of the centers of these interacting forces is obvious. Moreover, due to the same factors, the changes in the structure of the organization brought about by the process of inter-personal interactions are evolutionary rather than revolutionary.

In summary, organization structure should be viewed as a diagram depicting the lines of regression of the interacting forces and not as a solid and rigid structure. Its ability depends not on its internal endurance in as much as on the character of the process of inter-personal interactions among the members of the organization.

Another characteristic element of the modern bureaucratic organizations, mentioned in a previous chapter, is the division of the real or effective authority among

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<sup>68</sup>Cases #22, 23, 185, 221, 223, 284, 304, 323.

many.<sup>69</sup> The conventional concepts of unity of command, common goals, and cooperative action view authority as a positive managerial prerogative, unitary in nature and subject to delegation but not alienable in character. As indicated there, however, the real or effective authority of an administrator is determined through his identification with systems of loyalties and expectations operating within the organization at a given time. An administrator could master the whole volume of authority which is inherent in an organization if he could (1) identify himself with all the operating systems of loyalties and expectations, and (2) dominate absolutely all these systems. In the modern bureaucratic organizations, however, such a coincidence is almost impossible because of their pluralistic structure and the antagonistic character of the operating systems of loyalties and expectations. The "normal" status of an organization structure is that no one has complete and indisputable authority over all persons and all subjects with which the organization deals. Because of this division of authority, the structure of an organization should be viewed as a constellation of many centers of partial authority limited in radius and subdivided. These units of authority can act to the extent that the remaining units do not or cannot counteract effectively.

Organizational evolution. The analysis presented in the previous paragraph was focused basically on the aspects of organizational structure, or in other words, the basic elements of organizational morphology.<sup>70</sup> In this paragraph the physiology,<sup>71</sup> or the dynamics of the organizational process will be outlined.

As mentioned in previous parts of this study, the conceptualization of the organizational process has been influenced by the idea of a unitary and monocratic

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<sup>69</sup>Supra, pp. 137-143.

<sup>70</sup>"Morphology: the branch of biology which investigates the form and structure of organisms." Drever, op. cit., p. 174.

<sup>71</sup>"physiology: the branch of biological science which investigates the functioning of the different parts, structures, and organs in a living organism." Ibid., p. 209.

organizational structure, according to which:

1. Top Management--Board of Directors, City Council, President, etc.--is the only depository of primary organizational authority.

2. Top Management sets the goals of the organization on the basis of a comprehensive analysis of the environmental situation and the available organization means by designating priorities and delegating authority to the subordinates in order to carry out the accomplishment of the parts of the organizational objectives assigned to each of them.

3. The lower hierarchical levels follow the same pattern by assigning sub-goals and delegating authority to their subordinates.

4. In each of these consecutive steps everybody involved has, or ought to have, a panoramic view of the total picture of organization's efficiency, and by virtue of the common purpose and cooperative spirit he should harmonize his efforts with the other members of the organization in order that all of their activities converge to the best accomplishment of the organization goals.

5. Because of the fact that top management is the only depository of primary authority, the distribution of delegated authority among the members of the organization is a managerial prerogative. Management has a grand deed on the whole volume of authority within the organization and by virtue of this prerogative it can grant, revoke, or limit the authority of the subordinates.

The research findings disclosed that the above conceptual scheme is unrealistic in the sense that such a pattern of organizational structure can hardly be found as depicting the reality of any of the modern bureaucratic organizations. Moreover, it is also questionable if this pattern can be presented even as a useful normative model. What this pattern emphasizes is the absolute prerogative of management to exercise complete and unrestricted authority over all subjects. There is no evidence, however, that such a pattern will be the best in terms of productivity.<sup>72</sup> On the contrary, there is

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<sup>72</sup>Supra, pp. 132-33, 135-36.



evidence that such a model if it could be applied would have more disadvantages than advantages. As indicated previously:

1. Conflict is not always bad, because it often provides enlightenment and broader view of the organizational perspectives.<sup>73</sup>

2. Human beings cannot be expected to be alike and exact replicas of the same model in a manner that everybody could have the same perception of the organization goals, the same interests, and the same cognition of the factors involved in a given issue.<sup>74</sup>

3. A comprehensive review of the problem of an organization's efficiency at every step was found to be a grandiose and unrealistic suggestion.<sup>75</sup>

As stated previously, because of the fact that modern bureaucratic organizations are pluralistic structures with many centers of divided authority, the basic question in the study of organization is not the development of a normative model of an effective unitary organizational structure but the inquiry into the alternate hypothesis of how a pluralistic structure can operate effectively and reach the highest possible degree of efficiency.<sup>76</sup> This question, which is investigated in the next paragraph, cannot be answered unless the empirical pattern of the organizational process is first analyzed. This is attempted in the following lines.

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<sup>73</sup>Supra, p. 93.

<sup>74</sup>Supra, pp. 101-2.

<sup>75</sup>Supra, pp. 108-111.

<sup>76</sup>This hypothesis is not new. Pericles, in his funeral oration, stated: "All of us share in considering and deciding public policy, in the belief that debate is no hindrance to action, but that action is sure to fail when it is undertaken without full preliminary discussion. Consequently, we show the utmost initiative in what we do and the utmost deliberation in what we plan." Quoted from Albert Lepawsky, Administration: The Art and Science of Organization and Management (New York: Alfred A. Knopf, 1955), p. 85; supra, pp. 132, 133 n.86.

Earlier in the study, it was mentioned that an organization evolves through consecutive incremental changes which affect a part, or parts, and not the whole of its structure and functions at a given time. These incremental changes are developed without a comprehensive analysis of all the relevant questions covering the whole range of activities from the board of directors to the janitor, but they are limited in perspectives, cognition, perception and interests within the radius of the jurisdiction and effective authority of the initiators, participants and ratifiers of the particular decision.

Because of the incremental character of the organizational evolution, an organization at a given time is composed of two parts, one stable and another under change. This phenomenon, however, does not coincide with or validate either the distinction often made between static and dynamic elements as well as the concept of organizational equilibrium. These are not static elements by nature but only by non-action. Also, the temporarily stable elements are not the results of an equilibrium, since they have not been placed in interaction at all, but they remain stable due to inaction or inertia.<sup>77</sup> In summary, the process of organizational evolution is one of continuous and consecutive changes or renovations rather than of revolutionary overhauls.

The driving force of the organizational evolution is the individual who operates through initiations, interpersonal interactions, affiliations with operating systems of loyalties and expectations--groups--and finally "decides" through "realizations," i.e., through the understanding that his final decision should be somewhere between what he wants and what "the others" want. Almost all of the one hundred decisions digested by Markey and Nicolaidis were the results of individual initiative suggesting marginal or incremental improvements.

What makes an organization effective and efficient?  
As mentioned in previous parts of this study, one of the

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<sup>77</sup>Inaction or inertia should be viewed in relation to change. In case number 220, for example, the Policemen's Welfare Fund was a stable element over years because no interactions were observed over the issue. At the same time the operations of the Fund within its "stable" framework were carried on with regularity and zeal.

most puzzling questions among the students of organization has been the criterion or criteria which could be applied in order to evaluate the effectiveness and efficiency of an organization.<sup>78</sup> The analysis of the cases gathered disclosed that these terms have relative and not absolute values in administration dependent upon a multitude of factors which can be classified under two categories: environmental reaction and organizational response.<sup>79</sup>

Environmental reaction, i.e., the emergence of a problem which needs attention or the anticipation of such a problem in the future is generally the stimulus for organizational response. Because a comprehensive analysis of all the relevant past, present, and future factors involved in both the environmental reaction and the organizational response is not feasible, the organizational process evolves through consecutive steps of incremental changes in each of which a limited number of perceived and selected factors are taken under consideration.

On the basis of the above analysis, the conditions under which an organization achieves the highest possible degree of effectiveness and efficiency are the following:

1. Attention to the most important environmental factors at a given time.
2. Fast organizational response.
3. Greatest possible increment of the organizational evolution responding to the problematic situation.

The first refers to the problem of initiation, and intra-personal balance; the second is related to the problem of inter-personal interactions and the third is focused on the selection of the best choice. This selection is influenced by both intra-personal and inter-personal interactions.

As mentioned in a previous part, the selection of the issues which should be considered at a given time cannot be determined by a comprehensive analysis of the universe, but they depend on the quantity and quality of the "bids" for action submitted at the organizational forum.<sup>80</sup> Since a comprehensive analysis of the environmental universe is not feasible, what seems the best and

<sup>78</sup>Supra, pp. 122-29.

<sup>79</sup>Supra, pp. 124-5.

<sup>80</sup>Supra, pp. 181-85.

most workable solution of the initiation problem is:

1. Wide basis for and encouragement of participation.
2. Representative composition of the initiators in organizational decision-making. Because of the environmental complexity, no one in the organization can have a comprehensive perception of the environmental situation. A representative sample of "environmental observers" could cover to a great extent the vacuum left by the limitations or sometimes the absence of a single initiator.

The speed of the organizational response and the quality of the final choice depend on:

1. The range of the submitted "bids." (Variables of technical knowledge<sup>81</sup>)
2. The configurations of the operating systems of loyalties and expectations. (Variable of muddling through)
3. The character, direction, and intensity of the inter-personal interactions around the discussed "solution." (Variable of the "law of the situation," or "time")
4. The range and character of values and normative models dominating the organizational evolution at that time. (Variable of clothing with reason)

A detailed discussion of the above factors is beyond the scope of this study, but it can be stated generally that the effectiveness of an organization does not depend on the aggregation of the ability of each of its members to act, inasmuch as it does upon their ability to interact effectively under the established lines of interaction. This points out the limitations of the job-task concept. According to this concept, the effectiveness of the organization depends upon the quality and professional ability of the people who fill the various jobs. The research findings suggest that the effectiveness of a collective action does not depend so much on the ability of each individual to produce alone as on his ability to interact effectively with others. Consequently, perhaps a group of

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<sup>81</sup>Including the variable of struggling with uncertainty.

high-caliber individuals, conflicting with each other, may be more inferior as a work team than another group of individuals who supplement each other. The above statement indicates that staffing must be approached on an interacting group basis instead of an acting individual basis, and the formation of working teams should be freed as much as possible from the rigid restrictions of the job-task-hierarchy concept.

Under a state of "normal" conditions a great amount of organizational forces, ideas, and solutions remain inactive because their holders do not have access either to the points of initiation or the points of interaction.<sup>82</sup> Sometimes, also they hesitate to present their thoughts because they realize that the existing configurations of the interacting system of loyalties and expectations will kill their suggestions. Consequently, another factor which affects organization effectiveness is its ability to release and exploit to a maximum the inactive forces under a state of "normal" conditions.

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<sup>82</sup> Melville Dalton, Men Who Manage (New York: John Wiley and Sons, Inc., 1959), p. 4.

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