The Comparative Study of Organizations

Peter M. Blau

The comparative method, in the broadest sense of the term, underlies all scientific and scholarly theorizing. If we mean by theory a set of generalizations that explains courses of events or situations on the basis of the conditions and processes that produce them, every theory must rest on comparisons of contrasting cases; for to explain a state of affairs requires that the difference between it and some other state of affairs be accounted for—why democratic institutions developed in some countries but not in others, or what political processes distinguish democracies with multiparty systems from those with two-party systems. Usually, however, the term “comparative method” is used in a much narrower sense, though by no means a consistent one. Spencer and Durkheim, for example, referred by it to virtually opposite methodological principles. The former’s comparative method involves collecting descriptions of the same institution in many different societies to demonstrate “laws” of social evolution, whereas Durkheim, who rejected this procedure of the evolutionists, employed the same term to refer to the establishment of concomitant variations or correlations between two social phenomena.

Although every analysis of organizations entails some explicit or implicit comparisons, the comparative method in the study of organizations is defined here more narrowly as the systematic comparison of a fairly large number of organizations in order to establish relationships between their characteristics. In short, the term is used here to refer to quantitative comparisons that make it possible to determine relationships between

Source: Industrial and Labor Relations Review 18, no. 3 (April 1965): 323-38. Copyright © 1965 by Cornell University. All rights reserved. Reprinted by permission of the author and the publisher.

The Comparative Study of Organizations

attributes of organizations, for example, what other differences are generally associated with variations in an organization's size, or the degree of its bureaucratization, or its functions. Lest this emphasis on quantitative research be misconstrued, let me hasten to add that it is not meant to imply a concern with mathematical models or advanced statistical techniques. These are not at all the focus of interest. The point made is rather that theoretical generalizations about organizations are necessarily rooted in comparisons of many that differ in relevant respects, regardless of how impressionistic the data on which the analysis is based. Since some quantitative comparisons are inherent in the method of constructing theories, such comparisons should be built into the research procedures from which the theories derive.

The distinctive nature of the comparative approach to the study of organizations, as defined, can be highlighted in juxtaposition with the case-study approach. Most empirical investigations in the field are case studies of single organizations. The rationale for this approach is that large modern organizations, which often contain many thousands of members, are too complex to permit studying more than one or two at a time. While this statement is obviously correct if the aim is to investigate the attributes and behavior of the individual members of organizations, it is highly questionable if the aim is to investigate the characteristics and operations of the organizations themselves. Many characteristics of organizations can be ascertained quite easily and without the time and effort required for a survey of a large part of the membership. In any case, to derive theoretical generalizations from the study of a single organization, either the conditions in this organization must be compared to those in others known from the literature, which means that most of the systematic information collected in the case study are ignored, or the analysis must center on internal comparisons of the various units within the organization.3 The latter procedure tends to constrain the investigator to focus on principles about the structure of work groups and the behavior of individual members within organizations rather than on principles that govern the functioning and developing of organizations. As a result of these tendencies, empirical studies in this field of organizations have contributed more to our knowledge of human relations and group structures in the context of organizations than to the theory of organizations as distinct social systems. To be sure, the intensive analysis of internal processes possible in case studies can greatly enrich the theory of organization, but only as a complement to inquiries based on comparative studies.

An organization is a system for mobilizing and coordinating the efforts of various, typically specialized, groups in the pursuit of joint objectives. Although an organization could not exist without the individuals

who compose its membership, it has characteristics that do not pertain to characteristics of its individual members, such as its size, to name only the most obvious example. The sociological theory of organizations, the economic theory of the firm, and the political theory of the state or government constitute important potential links for interdisciplinary cross-fertilization and comparative research, inasmuch as they deal with diverse kinds of organizations, the organized government in a society being a particular kind of organization, namely, the one with the largest scope. But there is actually little cross-fertilization on this level, in part because the theory of organization is in such a rudimentary state.

The objectives of this article are to conceptualize various dimensions that can be distinguished in the analysis of organizational life, to outline the comparative approach to the study of organizations, and to indicate the theoretical significance of this approach.

Three Foci of Analysis

Three foci of analysis may be distinguished in organizational research, whether concern is with government agencies or industrial concerns, labor unions or political parties, armies or hospitals. The focus of the analysis can be (1) the individual in his specific role as a member of the organization who occupies a certain position in it; (2) the structure of social relations among individuals in the various groups within the organization; or (3) the system of interrelated elements that characterizes the organization as a whole.

First, many studies carried out in organizations center attention on the attitudes and behavior of individual members insofar as they pertain to the functions of the organization. The application of survey techniques...
The Comparative Study of Organizations

to research in organizations invites this focus, especially if representative samples are used, because sampling surveys make individuals the independent units of analysis. This type of analysis is illustrated by investigations of the attitudes of soldiers in combat, of the career patterns of civil servants and their implications for commitment to the organization, of the influence of the background characteristics of the labor force on performance of tasks and turnover, or of the conditions that promote work satisfaction. Studies of voting exemplify the same type in respect to the political organization of the government. These studies deal with processes that occur in the context of organizations and often show how the context modifies these processes—for instance, how the composition of work groups affects conduct—but they are not studies of organizations and the principles that govern their character and development. The American Soldier examines sociopsychological processes, such as those manifesting relative deprivation, but it tells us little about the organization of the army. Voting analyzes political processes, such as the crystallization of voting decisions under cross pressure, but it has little to say about the ways in which governments are organized; and Management and the Worker deals with behavior in work groups but not the organization of the factory.

A second type of analysis focuses upon the structures of social relations that emerge in the groups and segments in the organization. Since interest centers on networks of social relations and characteristics of group structures in this case, data are typically obtained from every member of selected subgroups rather than from a sample of individuals dispersed throughout the organization. Examples of this type are studies of the informal organization of work groups (Management and the Worker being a pioneering one), of union solidarity among factory workers, of consultation among officials, or of the differentiation of informal status that emerges in social interaction. Here concern is with the social processes that govern the development of group structures and the effects of these structures on patterns of conduct. The aim is to discover the principles that characterize group life, and the organizational context within which the work groups exist is considered as a set of limiting conditions for the emergence of group structure. The conditions in the larger organization, therefore, are treated as given rather than as problematical; that is, they are not made the subject of the inquiry that needs to be explained.

Third, the analysis may focus on the attributes of organizations themselves, the interrelations between these attributes, and the processes that produce them. In order to determine the relationships between various

CLASSICAL THEORETICAL PERSPECTIVES

classical characteristics of organizations, as an initial step in tracing the processes that give rise to them and explaining them, it is necessary to compare a large number of organizations which are similar in many respects but different in some. Studies on the connections between the size of organizations, their complexity, and the degree of bureaucratization within them illustrate this type, as do investigations of the impact of automation on the division of labor in factories, of the conditions that foster oligarchy in unions, of the implications of dispersed ownership for centralized control in corporations, or of the impact of the shape of the hierarchical pyramid on operations. The focus of interest now is the system of interrelated elements that characterize the organization as a whole, not its component parts. The aim is to discover the principles that govern the functioning system, although the processes and connections observed must often be inferred in the absence of detailed information on the internal structures and how they operate.

Implications

It is evident that the three foci lead to the analysis of quite different though by no means unrelated, problems. The phenomena that are made the central subject of the inquiry in one kind of analysis are assumed to be given in the others. In the first case, the role attributes and performances of the individual members of organizations are investigated, and the context of the organization and even that of the work group are considered given conditions or stimuli that may affect the roles of individuals. In the second case, social relations and, particularly, the structures of social relations in groups are analyzed, and the characteristics of the individuals who compose these groups as well as the organizational context are treated as limiting conditions for the emergence of these social structures. In the third case, the combinations of attributes that characterize organizations as such and the development of these systems of organizing the efforts of various groups in joint endeavors are studied, and both the individual behavior and the group processes that underlie these systems are taken for granted.

The specific criterion for differentiating the three foci—role analysis, structural analysis, and organizational analysis—is whether the variables under consideration describe individuals, groups of interrelated individuals, or organized systems of interrelated groups. Thus, seniority, professional expertise, socioeconomic status, commitment to an organization, and political preference are attributes of individual human beings. But the strength of the cohesive bonds that unite group members and the extent of differentiation of status that emerges among them are variables that refer to groups as such and not to their individual members. Correspondingly, the division of labor among various groups, the degree of centraliza-
The Comparative Study of Organizations

control in an organization, the age of the organization, and its size are characteristics of the organization as a whole that cannot be attributed either to its subgroups or to its individual members.

A complication arises, however, because the variables that pertain to a collectivity may be based on data obtained either by measuring a property of the collectivity itself or a property of all of its members. Lazarsfeld and Menzel have referred to the former as global properties, such as whether a factory is automated, uses assembly lines, or neither, and to the latter as analytical properties of collectivities, such as the proportion of older workers in a company. The turnover rate in a factory, the average productivity of its labor force, and the proportion of its personnel in administrative positions are analytical properties that clearly refer to the organized collectivity but that are based on data derived from the behavior of individuals. For every analytical attribute that describes an organized collectivity there is a parallel attribute that distinguishes the members within it—the productivity of a worker, or whether an employee occupies an administrative position—but there are no such individual parallels for the global properties of collectivities—only factories can be distinguished by the degree of mechanization, not the individual workers within a factory. A simple illustration of this contrast is the difference between the age of a firm and the average age of its employees.

Focus on Organizational Attributes

The use of analytical properties—averages, proportions, or rates—as independent variables in organizational or structural analysis raises special problems. Let us assume that a comparative study of welfare agencies found that professionalization, that is, the proportion of caseworkers who have graduate training in social work, is associated with more extensive service to clients. Three interpretations of this finding are possible, depending on whether the focus is on roles, on group structures, or on the organization of the agencies. First, professionally trained individuals may provide more service to clients than untrained caseworkers. Second, the structure of work groups with a high proportion of professionals, perhaps by making informal status dependent on the way clients are treated, may encourage caseworkers, regardless of their own training, to extend more service to clients. Third, agencies with a high proportion of professionals on their staff may be better organized to serve clients, which would be reflected in improved service by individual caseworkers independent of these individuals’ own training or the work groups to which they belong.

CLASSICAL THEORETICAL PERSPECTIVES

To determine which one of these three different interpretations is correct, or whether more than one or all three are, it is necessary to separate three distinct influences on treatment of clients, that of the individual's own training, that of the professional composition of his work group, and that of the professionalization of the agency in which he works. Statistical procedures for accomplishing this separation have been outlined elsewhere.¹⁰

It should be noted that the technical criterion by which organizational analysis is distinguished from the two other types is an analytical one that applies to all kinds of organized collectivities, not alone to formal organizations. Crosscultural comparisons or studies of the relationship between the stage of technological development and the stratification system in different societies involve organizational analysis in the technical sense, although they do not deal with formal organizations. To speak of a formal organization there must exist explicit procedures for organizing the subgroups in a collectivity to further some joint ends. On the basis of this definition, the political system in a society is a formal organization, while the stratification system is not, and neither is the economy, though a firm, of course, is one.

To advance the theory of formal organizations, a focus on organizational analysis is essential. This is not to say that role analysis and structural analysis of the members and work groups in organizations are unimportant, because they can supply evidence on the social processes that account for the systems that emerge in organizations, but this evidence can be used to explain organizational systems only in combination with comparative studies that focus on the relationships between various attributes of organizations themselves.

Social Processes in Organizations

The study of social processes is often contrasted with the study of social structures or that of the interrelations between factors in a system, but it is not always entirely clear what the specific distinguishing marks of the analysis of social processes are. One implication of the term is that processes occur over time and that their investigation, therefore, must be diachronic rather than synchronic. Whereas the synchronic study of the interrelations between attributes in a system takes the emergence of these attributes for granted, the diachronic study of social processes traces the sequence of events or occurrences that led to the development of these

¹⁰ Blau, "Structural Effects," American Sociological Review, vol. 25, 1960, pp. 178-93. The procedure there described for isolating the effects of social structure from those of role attributes can also be used to isolate the effects of organizational attributes from those of the other two.
The Comparative Study of Organizations

attributes. An illustration of this difference would be an inquiry into the status structure in a group and the various characteristics associated with superior status, on the one hand, and an inquiry into the processes of differentiation that produced the status structure, on the other. Taking time into account, however, is only a necessary and not a sufficient condition for the analysis of social processes. Thus, panel studies that compare opinions or states of affairs at two points in time do not directly deal with social processes, although they make it easier to infer them than does research at a single point of time.

Analysis of Intervening Links

The analysis of social processes requires the specification of a series of intervening links between an earlier state and a system or structure that subsequently develops. Thus, the investigation of the process of socialization seeks to trace the many steps that link the behavior and attitudes of parents to the internalized values and personalities that their children ultimately develop. Similarly, the investigation of the process of bureaucratization seeks to trace the sequence of typical events stimulated by the large size and complexity of an organization and eventually a formalized system of procedures and hierarchical authority. In brief, the examination of social processes entails the specification of intervening variables that connect initial conditions with their effects in a time sequence.

External as well as internal social processes affect organizations. Research on processes that occur outside the framework of organizations must not make organizations the unit of analysis but must find another more appropriate one. Thus, the study of the processes that give rise to technological advancements and the chain of implications of technological innovations must compare different cultures and not merely different organizations in one society. To investigate the processes that govern career patterns, the occupational roles and career lines must be the focus of the analysis and the occupational experiences of individuals must be followed as they move into and out of various organizations. The student of organizations is not primarily concerned with these external processes but only with the results they produce, which constitute conditions that affect organizations, for instance, the limits set by the state of technological knowledge for organizational developments, or the influence career experiences have for the performance of organizational responsibilities.

The internal processes in organizations include the processes of social interaction among members that find expression in the emergent group structures and the processes through which the interrelated elements in the total system become organized. The analysis of processes of interaction may deal with the ways in which first impressions affect role expectations
CLASSICAL THEORETICAL PERSPECTIVES

and how these in turn affect the conduct of interacting persons, with the
exchanges of rewards in the form of advice, help, approval, and respect
that shape the relations among group members, and with the modifications
in these exchange patterns produced by differences in the complexity of
the task or in the style of supervision. The aim of the analysis is to explain
the differentiated social structures that arise as the result of these processes
of interaction among individuals. Whereas this analysis exemplifies the
structural focus, the organizational focus calls attention to such problems
as the processes of increasing specialization, mechanization, professional-
ization, centralization, or bureaucratization, the conditions that give rise
to these processes, and the interplay between them. The aim here is to
explain the systems of interrelated characteristics that evolve in various
organizations. These are the processes that are of immediate concern to
the student of organizations, because they constitute the intervening links
that explain the connections between the inputs and outputs of the organi-
zations, between the initial conditions and the system that develops.

Compass of Social Systems

Social systems are typically part of broader ones that encompass
them and simultaneously constitute the environment of narrower systems
they encompass. Work groups are the environment in which individuals
act out their roles; the organization of the department is the context within
which work groups develop their structure; the total organization sets
limits to the ways in which departments can be organized; and the society,
including the political order, other institutions, and the state of the tech-
nology, provides the social setting that conditions the character of the
organizations in its boundaries. Whereas the larger system restricts the
developments of those it encompasses, there are also feedback effects
from the subsystems to the more encompassing ones, because subsystems
are not infinitely pliable but tend to have a minimum of autonomy, to
which the encompassing system must adjust.11 Thus, the occupational ex-
periences and professional values of the members of an organization con-
dition the performance of tasks, the informal structures of work groups
modify the impact of the incentive system, and the professional require-
ments of the department of psychiatry set limits to the administrative re-
quirements the hospital administration can impose on it.

Even in comparative studies only those characteristics of the units
under consideration in respect to which the differ can be systematically
investigated, whereas the characteristics all have in common must be al-
located to the next higher level as part of the constant environment. If all

11. See Alvin W. Gouldner, "Reciprocity and Autonomy in Functional Theory," In
Llewellyn Gross, Symposium on Sociological Theory (Evanston: Row, Peterson)
pp. 254-66.

118
work groups under investigation consist of six workers under a supervisor, size cannot be treated as a variable in the analysis of group structure but the existence of work units of this size must be considered part of the organizational context that conditions the emerging group structures. Similarly, if computers are used in some organizations but not in others, the significance of this aspect of mechanization for other characteristics of the organization can be examined, but if secretaries in all the organizations studied use typewriters, it must be inferred that this aspect of mechanization is part of the technological state of the society that is invariable reflected in its organizations. Whether this inference is correct or not depends on the representativeness of the organizations included in the sample. Regardless of whether the inference about all organizations is warranted, however, the fact that a certain characteristic reveals no variation among all the organizations examined necessitates that it be treated as a given condition of organizational life in this particular research.

Whereas factors that cannot be explained within the framework of a specific investigation must be allocated to a more encompassing system, a full explanation of relationships between factors tends to involve references to a less encompassing system. A theoretical interpretation of an observed relationship between two variables, an antecedent and its effect, entails subsuming it under a general proposition that connects two abstract concepts of which the observed variables are specific manifestations and, in addition, specifying intervening variables that account for the connection. Thus, Durkheim explained the relationship between religion and suicide rates by suggesting that an individualistic belief system, by lessening social integration, promotes an egoistic mentality, which affords weak protection against crises.

To explain the correlation between an independent and a dependent variable, the intervening processes that account for the connection are specified and to explain the principles that govern these processes, intervening processes on a more fundamental level are indicated. For example, the relationship between the composition of a group and the status structure that develops in it is explained by taking into account the processes of social interaction that lead to differentiation of status, and patterns of social interaction and exchange are explained in terms of the psychological processes that underlie them. An explanation of psychological principles, in turn, refers back to the underlying physiological processes, and these physiological processes can be further explicated in terms of chemical ones. Serious scientific explanations typically confine themselves to ad-

CLASICAL THEORETICAL PERSPECTIVES

jacent levels and do not skip across many. Physiological principles do not help to account for group structures and social processes, and nuclear physics does not aid in clarifying learning theory, though there are undoubtedly indirect connections.

Case Study and Comparative Approach

The aim of organizational analysis is to explain the systems of interrelated elements that characterize various kinds of organizations. For this purpose the interdependence between different attributes of organizations must be established—their size, complexity, specialization, authority structure, professionalization, bureaucratization, and so forth. To clarify this constellation of attributes requires an understanding of the social processes through which the different attributes develop and the connections between them evolve. Since the structures of social relations among the members of the organization affect the processes of its development, a knowledge of these structures further contributes to the understanding of the development of the organizational system. Research has shown, for instance, that the informal organization of work groups exerts important influences on performance, the exercise of authority, and the significance of the incentive system for operations, which indicates that the study of the relationships between these and other factors must take the impact of informal structures into account.

A major contribution of case studies on organizations has been that they have called attention to these informal structures and investigated them intensively. This intensive investigation involved the analysis of the social processes through which the informal structures emerged, such as the process of cooptation that modifies the leadership structure,\(^{14}\) the sanctioning processes in which output becomes regulated,\(^{15}\) or the process of exchange of advice that gives rise to status differentiation.\(^{16}\) Comparative studies of organizations, however, need not repeat such intensive analysis of informal processes, since it suffices for them to take account of the results of these processes that find expression in group structures. Indeed, even the role of informal structures will probably have to be inferred rather than directly investigated in most comparative studies of organizations, for systematic organizational analysis—analagous to all systematic analysis—cannot possibly take all factors that indirectly

The Comparative Study of Organizations

influence organizational life into account but must treat some as given conditions while inquiring into the interrelations of the basic features of organizations.

Theoretical interpretations of the relationships between antecedent conditions and their consequences remain inevitably somewhat inferential, it would seem, not only because they subsume relations under propositions on a higher level of abstraction that cannot be directly confirmed in research, but also because they typically conceptualize the connecting process as a series of links too complex for direct empirical testing. The proposition that the antecedent A promotes the occurrence B can be empirically confirmed, provided that operational measures for the two factors exist, by showing that B is more prevalent under condition A than under non-A. If the analysis of social processes means the specification of the intervening variables that link A and B in a time sequence, multivariate analysis should make it possible to test whether the process occurs as specified by ascertaining the relationships between A, all intervening variables, and B. Although this is correct in principle, it is usually impossible to implement such a test in actual practice, because so many intervening links tend to be indicated in process analysis that it is virtually impossible to examine the interrelations between all of them simultaneously. Computers facilitate the simultaneous analysis of many variables, but the capacities of the human mind still limit the number of interrelated concepts that can be simultaneously taken into account in a theory. Although theoretical explanations couched in terms of complex social processes cannot be directly tested, precise specification of these processes makes it possible to predict what combinations of organizational features the processes produce under varying conditions, and these predictions serve as indirect tests for the theory.

Organizational Theory

A theory of organizations, whatever its specific nature, and regardless of how subtle the organizational processes it takes into account, has as its

IV. The principle is the same as that of a game in its normal form, as I understand it. Although game theory does not deal with processes or sequential steps but with state choices between strategies, sequential steps can be taken into account in advance by translating all possible sequences into a game in its normal form and then treating it as one choice between all these possibilities. In actual fact, however, the number of alternatives for games with any degree of complexity is virtually infinite, which makes the formalistic solution of translating successive steps into a game in its normal form useless for practical purposes.

V. It is, of course, much easier to clarify many successive situations, one at a time, thus all of them simultaneously. Even a very good chess player can anticipate only a few moves ahead.
CLASSICAL THEORETICAL PERSPECTIVES

central aim to establish the constellations of characteristics that develop in organizations of various kinds. Comparative studies of many organizations are necessary, not alone to test the hypotheses implied by such a theory, but also to provide a basis for initial exploration and refinement of the theory by indicating the conditions on which relationships, originally assumed to hold universally, are contingent. Strict impersonal detachment, for instance, may well promote efficiency only under some conditions and not at all under others. Systematic research on many organizations that provides the data needed to determine the interrelations between several organizational features is, however, extremely rare. The main reason is that the investigation of the internal structure of a complex organization is so costly in time and effort to make the inclusion of many organizations in a single study design impracticable. One way out of this impasse is to study the major attributes of many organizations and sacrifice any detailed information on their internal structures.

The approach to comparative research on organizations proposed, therefore, would be explicitly restricted to those data that can be obtained from the records of organizations and interviews with key informants, without intensive observation or interviewing of most members, which would make it possible to collect the same data on one hundred or more organizations of a given type in one study. In other words, the research design sacrifices depth of information to achieve sufficient breadth to permit a minimum of quantitative comparison. The very limitation imposed by lack of extensive data on internal structures has a latent function, so to speak, inasmuch as it forces the investigator to focus on the neglected area of organizational analysis rather than on the repeatedly studied role relations and group structures within organizations. It is suggested that this approach, though prompted by methodological necessity, has the potential to contribute greatly to organizational theory. To illustrate the theoretical significance of the comparative approach to organizational research, let us examine how it could help refine Weber's theory of bureaucracy.

Weber's Theory

Weber's analysis of bureaucracy is part of his general theory of types of political order and authority, and it is simultaneously a crucial case of the most pervasive theme in all his writings, namely, the increasing rationalization of modern life. The major characteristics Weber attributed to


122
The Comparative Study of Organizations

The typical bureaucracy will first be outlined, and his analysis of their functional interdependence will then be summarized.21

The large size of an organization and the great complexity of its responsibilities promote bureaucratization, according to Weber. One aspect of bureaucratization is the elaboration of the administrative apparatus in the organization. Bureaucracies also are characterized by a high degree of specialization, and their members are trained as specialized experts in the tasks assigned to them. Furthermore, official positions are organized in a hierarchy with clear lines of authority, the scope of which is precisely circumscribed by impersonal rules. Operations generally are governed by a consistent system of rules and regulations. Impersonal detachment is expected to prevail in the performance of duties and in official relations. Personnel and promotion policies, too, are governed by impersonal criteria, such as merit or seniority, which assures officials stable careers with some advancement in the organization. Weber held that this combination of characteristics tends to evolve because it is necessary for and further administrative efficiency.

In analyzing the processes that produce this interdependence among characteristics, Weber implicitly presents a functional analysis of bureaucracy, with rational decision making and administrative efficiency as the criteria of function. The requirement to discharge complex responsibilities effectively creates pressures to divide them into specialized, more easily manageable tasks and to appoint professionally qualified experts to perform the various specialized tasks. The pronounced division of labor, particularly in large organizations, creates special problems of coordination. An administrative apparatus tends to develop to maintain channels of communication and coordination, and a hierarchy of authority and responsibility is needed actually to effect the coordination of diverse tasks in the pursuit of organizational objectives by enabling superiors on successive levels to guide, directly or indirectly, the performance of increasingly lower circles of subordinates. But detailed supervision of all decisions by superiors is most inefficient and produces serious strains. The system of rules and official procedures is designed to standardize performance and restrict the need for direct supervisory intervention largely to extraordinary cases. Professional training and official rules notwithstanding, however, strong emotions or personal bias may interfere with rational decision making; the emphasis on impersonal detachment has the function of preventing the intrusion of such irrational factors into official decisions. Lest the strict impersonal discipline under which the members of a bureaucracy must operate alienate them, stable careers promote loyalty to the organization and counteract these burdens. In short, the problems created by one organizational feature stimulate processes that give rise to another,

21 Italicics are used for the nine major concepts which are first presented, then related to one another, and finally operationalized.
and many interdependent processes of this kind produce the constellation of features characteristic of the typical bureaucracy as conceptualized by Weber.

Operational Measures

Operational measures for the characteristics of bureaucratic organizations described by Weber can be obtained by the comparative method here advocated, and it would be sheer waste in most cases to employ more intensive methods to obtain these data. This is evidently the case for the size of an organization. Whether size is measured by number of employees of a factory, number of voters for a party, number of beds in a hospital, or total assets of a firm, there is evidently no need to interview all members of the organization to ascertain this information. One index of complexity is the number of basic objectives or responsibilities of an organization—a university with graduate and professional schools has more complex responsibilities than a college without them—and another index of it is the number of different locations where the organization operates. Still another aspect of complexity is the degree of specialization in an organization, which might be measured by the number of different occupational positions, or by the distribution of the members among various occupational specialties, or by the number of functionally specialized departments. The amount of training required for various positions could serve as an indicator of professional expertness, as could the proportion of personnel with a given amount of professional education.

An index of bureaucratization that has been used in previous research is the relative size of the administrative component; that is, the proportion of personnel in administrative or staff positions. Three related measures of the hierarchy of authority, which refer to the shape of the pyramid, would be the number of levels in the hierarchy, the average span of control, and the proportion of personnel in managerial positions. The extent to which procedures have been made explicit in formal rules is indicated by the existence and size of written procedure manuals and by the specificity of the prescriptions contained in them. Two other measures of an emphasis on uniform standards of performance are whether decisions are routinely reviewed for correctness and the amount of statistical information on operations that is kept in the organization as a basis for

The Comparative Study of Organizations

executive decisions. The use of such statistical records for the evaluation of the performance of subordinates can be considered an indication of impersonality, and so can precisely stipulated personnel policies, as exemplified by civil service regulations. The degree of career stability, finally, is manifest in membership turnover and average length of service.

This listing makes evident that the empirical data needed for research on the major characteristics of bureaucratic organizations included in Weber's theory are easily enough accessible to make it possible to obtain them for large numbers of organizations in brief visits to each. To be sure, to examine the various facets of each concept, as Weber does, would require more extensive data than those outlined. To cite only one example, an analysis of organizational authority should not be confined to the shape of the hierarchical pyramid but include other aspects of hierarchical control, such as the degree of centralization in the organization. There is no reason to assume, however, that additional measures suitable for comparative studies, which would complement the original ones and thus allow refinement of the analysis, cannot be devised; for instance, information could be obtained about the level in the hierarchy on which various important budgetary and personnel decisions are made to provide measures of centralization. The crucial point is that intensive investigations of internal structures and processes are neither needed nor appropriate for obtaining the data that pertain most directly to theories of organization.

Empirical data of this kind about a fairly large sample of comparable organizations would make it possible to test numerous hypotheses implied by Weber's theory, such as that the processes of specialization, professionalization, and bureaucratization tend to occur together in organizations. Chances are that research findings would reveal that many hypotheses must be revised, thereby directing attention to needed reformulations and specifications in the theory. Thus, impressionistic observation leads one to suspect that increasing specialization is indeed accompanied by increasing professionalization in some types of organizations, such as hospitals, but that a high degree of specialization reduces the need for an expertly trained working force in other types, such as assembly-line factories. If this impression should be correct, it would raise the question of the conditions that determine whether or not an extensive division of labor is associated with a highly trained working force.

Refining Theory

Systematic exploration of the empirical relationships between organizational features would provide a basis for refining the theory of bureaucracy by indicating the conditions on which the concurrence of various bureaucratic characteristics is contingent, by helping to answer some questions Weber did not resolve, and by clarifying problems and issues his
CLASSICAL THEORETICAL PERSPECTIVES

theory raises. For example, Weber considers both seniority and merit impersonal criteria of bureaucratic advancement. An important question which he never answers is what conditions determine whether promotions are largely based on seniority or primarily on merit, a difference that undoubtedly has significant implications for careers and for the organization. Properly designed comparative studies of organizations could help answer this question.

Whereas Weber implies that the large size of an organization as well as its complexity promotes bureaucratization, recent comparative research indicates that size is unrelated or inversely related to bureaucratization as measured by the proportion of the organization’s personnel in administrative positions. It appears that complexity is associated with a disproportionately large administrative apparatus, and large size often goes together with a high degree of complexity, but increasing size as such does not lead to a disproportionate expansion of the administrative apparatus. The question these conclusions raise is whether other aspects of bureaucratization, such as extensive written rules, detailed statistical controls, or impersonal personnel procedures, are associated with both size and complexity independently, in accordance with Weber’s assumption, or only with one of the two or possibly with neither.

An important issue that has been raised concerns the relationship between professional competence and bureaucratic authority. Several authors, including notably Parsons, Gouldner, and Stinchcombe, have criticized Weber’s contention that professional expertise is a typical characteristic of bureaucracies which goes together with such other bureaucratic characteristics as strict lines of hierarchical authority that require disciplined compliance with the commands of superiors. It has been held that professional principles often conflict with the principles that govern hierarchical administration and that the two are not complementary, as Weber assumes, but rather alternative mechanisms of control and coordination. The empirical question is under which conditions professionalization and bureaucratization, especially as revealed in centralized hierarchical control, are associated in organizations and under which conditions they are not. Comparative research might explore, for instance, whether the association between professionalization and bureaucratization depends on the degree of specialization in the organization, because professional standards facilitate coordination among men in similar fields, reducing the need for bureaucratic mechanisms, whereas they make coordination be-

23. See references cited in preceding footnote.
The Comparative Study of Organizations

tween widely diverse fields more difficult, increasing the need for administrative mechanisms of coordination.

A related issue of even broader theoretical significance is posed by Weber's implicit assumption that strict hierarchical authority and discipline are universally most effective in achieving efficiency in administrative organizations. One might well wonder whether the Prussian army, which sometimes seems to have served Weber inadvertently as the prototype, is really the ideal model for all organizations, whatever the nature of their responsibilities, the composition of their personnel, and the culture in which they operate.20 In a democratic culture where subordination under authoritative commands tends to be negatively valued, strict hierarchical control and close supervision may well be less effective methods of operation than delegating responsibilities and permitting subordinates some discretion in their exercise. The greater the professionalization of the staff, moreover, the less effective is control through directives from superiors likely to be. The most effective method for organizing an army, finally, is probably not identical with the most effective method for organizing a research laboratory. Comparative studies of organizations could throw some light on these broad issues too.

Conclusions

Three foci of analysis have been distinguished in the study of organizational life: (1) role analysis is concerned with individual members of organizations, their attitudes, and their behavior; (2) structural analysis focuses upon groups of interrelated individuals in organizations and the patterns of social associations that develop in these groups and give them their form; (3) organizational analysis centers attention on systems of interrelated groups explicitly organized to achieve some joint ends and the constellations of attributes that characterize these organizations. The differentiating criterion is whether the unit of analysis whose characteristics are being compared, and of which, therefore, a fairly large number must be examined, is the individual member, the work group, or the entire organization.

In terms of this criterion, a case study of an organization cannot make the organization the unit of systematic analysis but only the structures of subgroups or the roles of individuals. By the same token, the study of the influence of the environment on organizations would have to employ a research design that includes organizations in a variety of different en-

CLASSICAL THEORETICAL PERSPECTIVES

environments, and since hardly any studies do so, the complaint often heard that we know virtually nothing about the impact of the social setting on organizations is quite justified. Whereas more than three foci of analysis are possible—as just noted, the social setting could be the focus—the three outlined are the major ones in the study of organizational life. The most appropriate method for role analysis is the interviewing survey, for structural analysis, intensive observation of all members of selected groups, and for organizational analysis, the comparative study of many organizations.

A theory of organization seeks to explain the systems of relationships between elements in a structure that characterize organizations. Such explanations involve, like all theoretical explanations, subsuming observed relationships between characteristics under more general propositions and specifying the intervening processes responsible for the connections. A major contribution of case studies that investigate the internal structures of organizations is that they provide specific evidence on these underlying processes, which otherwise must be inferred in organizational analysis. But this is only a potential contribution to organizational theory as long as it stands by itself and is not yet a supplement to the data on constellations of organizational features provided by comparative studies of organizations, which must furnish the main foundation of such a theory. Only systematic comparisons of many organizations can establish relationships between characteristics or organizations and stipulate the conditions under which these relationships hold, thereby providing the material that needs to be explained by theoretical principles and important guides for deriving these principles. Although comparative research on a fairly large number of organizations is necessarily restricted to data easily accessible without time-consuming intensive investigations, these are the very data most relevant for organizational theory; for example, Weber's theory of bureaucracy.