

The Proverbs of Administration

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A fact about proverbs that greatly enhances their quotability is that they almost always occur in mutually contradictory pairs. "Look before you leap!"—"He who hesitates is lost."

This is both a great convenience and a serious defect—depending on the use to which one wishes to put the proverbs in question. If it is a matter of rationalizing behavior that has already been decided upon, proverbs are ideal. Since one is never at a loss to find one that will prove his point or the precisely contradictory point, for that matter—they are a great help in persuasion, political debate, and all forms of rhetoric.

But when one seeks to use proverbs as the basis of a scientific theory, the situation is less happy. It is not that the propositions expressed by the proverbs are insufficient; it is rather that they prove too much. A scientific theory should tell what is true but also what is false. If Newton had announced to the world that particles of matter exert either an attraction or a repulsion on each other, he would not have added much to scientific knowledge. His contribution consisted in showing that an attraction was exercised and in announcing the precise law governing its operation.

Most of the propositions that make up the body of administrative theory today share, unfortunately, this defect of proverbs. For almost every principle one can

find an equally plausible and acceptable contradictory principle. Although the two principles of the pair will lead to exactly opposite organizational recommendations, there is nothing in the theory to indicate which is the proper one to apply.¹

It is the purpose of this paper to substantiate this sweeping criticism of administrative theory, and to present some suggestions—perhaps less concrete than they should be—as to how the existing dilemma can be solved.

SOME ACCEPTED ADMINISTRATIVE PRINCIPLES

Among the more common "principles" that occur in the literature of administration are these:

1. Administrative efficiency is increased by a specialization of the task among the group.
2. Administrative efficiency is increased by arranging the members of the group in a determinate hierarchy of authority.
3. Administrative efficiency is increased by limiting the span of control at any point in the hierarchy to a small number.
4. Administrative efficiency is increased by grouping the workers for purposes of control, according to (a) purpose, (b) process, (c) clientele, or (d) place. (This is really an elaboration of the first principle but deserves separate discussion.)

Since these principles appear relatively simple and clear, it would seem that their application to concrete problems of administrative organization would be unambiguous and that their validity would be easily submitted to empirical test. Such, however, seems not to be the case. To show why it is not, each of the four principles just listed will be considered in turn.

Specialization. Administrative efficiency is supposed to increase with an increase in specialization. But is this intended to mean that *any* increase in specialization will increase efficiency? If so, which of the following alternatives is the correct application of the principle in a particular case?

1. A plan of nursing should be put into effect by which nurses will be assigned to districts and do all nursing within that district, including school examinations, visits to homes of school children, and tuberculosis nursing.
2. A functional plan of nursing should be put into effect by which different nurses will be assigned to school examinations, visits to homes of school children, and tuberculosis nursing. The present method of generalized nursing by districts impedes the development of specialized skills in the three diverse programs.

Both of these administrative arrangements satisfy the requirement of specialization—the first provides specialization by place; the second, specialization by function. The principle of specialization is of no help at all in choosing between the two alternatives.

It appears that the simplicity of the principle of specialization is a deceptive simplicity—a simplicity which conceals fundamental ambiguities. For "specialization" is not a condition of efficient administration; it is an inevitable characteristic of all group effort, however ef-

ficient or inefficient that effort may be. Specialization merely means that different persons are doing different things—and since it is physically impossible for two persons to be doing the same thing in the same place at the same time, two persons are always doing different things.

The real problem of administration, then, is not to "specialize," but to specialize in that particular manner and along those particular lines which will lead to administrative efficiency. But, in thus rephrasing this "principle" of administration, there has been brought clearly into the open its fundamental ambiguity: "Administrative efficiency is increased by a specialization of the task among the group in the direction which will lead to greater efficiency."

Further discussion of the choice between competing bases of specialization will be undertaken after two other principles of administration have been examined.

Unity of Command. Administrative efficiency is supposed to be enhanced by arranging the members of the organization in a determinate hierarchy of authority in order to preserve "unity of command."

Analysis of this "principle" requires a clear understanding of what is meant by the term "authority." A subordinate may be said to accept authority whenever he permits his behavior to be guided by a decision reached by another, irrespective of his own judgment as to the merits of that decision.

In one sense the principle of unity of command, like the principle of specialization, cannot be violated; for it is physically impossible for a man to obey two contradictory commands—that is what is meant by "contradictory commands." Presumably, if unity of command is a principle of administration, it must assert something more than this physical impossibility. Perhaps it asserts this: that it is undesirable to place a member of

an organization in a position where he receives orders from more than one superior. This is evidently the meaning that Gulick attaches to the principle when he says,

The significance of this principle in the process of co-ordination and organization must not be lost sight of. In building a structure of co-ordination, it is often tempting to set up more than one boss for a man who is doing work which has more than one relationship. Even as great a philosopher of management as Taylor fell into this error in setting up separate foremen to deal with machinery, with materials, with speed, etc., each with the power of giving orders directly to the individual workman. The rigid adherence to the principle of unity of command may have its absurdities; these are, however, unimportant in comparison with the certainty of confusion, inefficiency and irresponsibility which arise from the violation of the principle.²

Certainly the principle of unity of command, thus interpreted, cannot be criticized for any lack of clarity or any ambiguity. The definition of authority given above should provide a clear test whether, in any concrete situation, the principle is observed. The real fault that must be found with this principle is that it is incompatible with the principle of specialization. One of the most important uses to which authority is put in organization is to bring about specialization in the work of making decisions, so that each decision is made at a point in the organization where it can be made most expertly. As a result, the use of authority permits a greater degree of expertness to be achieved in decision making than would be possible if each operative employee had himself to make all the decisions upon which his activity is predicated. The individual fireman does not decide whether to use a two-inch hose or a fire extinguisher; that is decided for him by his officers, and the

decision is communicated to him in the form of a command.

However, if unity of command, in Gulick's sense, is observed, the decisions of a person at any point in the administrative hierarchy are subject to influence through only one channel of authority; and if his decisions are of a kind that require expertise in more than one field of knowledge, then advisory and informational services must be relied upon to supply those premises which lie in a field not recognized by the mode of specialization in the organization. For example, if an accountant in a school department is subordinate to an educator, and if unity of command is observed, then the finance department cannot issue direct orders to him regarding the technical, accounting aspects of his work. Similarly, the director of motor vehicles in the public works department will be unable to issue direct orders on care of motor equipment to the fire-truck driver.³

Gulick, in the statement quoted above, clearly indicates the difficulties to be faced if unity of command is not observed. A certain amount of irresponsibility and confusion are almost certain to ensue. But perhaps this is not too great a price to pay for the increased expertise that can be applied to decisions. What is needed to decide the issue is a principle of administration that would enable one to weigh the relative advantages of the two courses of action. But neither the principle of unity of command nor the principle of specialization is helpful in adjudicating the controversy. They merely contradict each other without indicating any procedure for resolving the contradiction. . . .

The principle of unity of command is perhaps more defensible if narrowed down to the following: In case two authoritative commands conflict, there should be a single determinate person whom the subordinate is expected to

obey; and the sanctions of authority should be applied against the subordinate only to enforce his obedience to that one person.

If the principle of unity of command is more defensible when stated in this limited form, it also solves fewer problems. In the first place, it no longer requires, except for settling conflicts of authority, a single hierarchy of authority. Consequently, it leaves unsettled the very important question of how authority should be zoned in a particular organization (i.e., the modes of specialization) and through what channels it should be exercised. Finally, even this narrower concept of unity of command conflicts with the principle of specialization, for whenever disagreement does occur and the organization members revert to the formal lines of authority, then only those types of specialization which are represented in the hierarchy of authority can impress themselves on decisions. If the training officer of a city exercises only functional supervisions over the police training officer, then in case of disagreement with the police chief, specialized knowledge of training problems will be subordinated or ignored. That this actually occurs is shown by the frustration so commonly expressed by functional supervisors at their lack of authority to apply sanctions.

Span of Control. Administrative efficiency is supposed to be enhanced by limiting the number of subordinates who report directly to any one administrator to a small number—say six. This notion that the "span of control" should be narrow is confidently asserted as a third incontrovertible principle of administration. The usual common-sense arguments for restricting the span of control are familiar and need not be repeated here. What is not so generally recognized is that a contradictory proverb of administration can be stated which, though it

is not so familiar as the principle of span of control, can be supported by arguments of equal plausibility. The proverb in question is the following: Administrative efficiency is enhanced by keeping at a minimum the number of organizational levels through which a matter must pass before it is acted upon.

This latter proverb is one of the fundamental criteria that guide administrative analysis in procedures simplification work. Yet in many situations the results to which this principle leads are in direct contradiction to the requirements of the principle of span of control, the principle of unity of command, and the principle of specialization. The present discussion is concerned with the first of these conflicts. To illustrate the difficulty, two alternative proposals for the organization of a small health department will be presented—one based on the restriction of span of control, the other on the limitation of number of organization levels:

1. The present organization of the department places an administrative overload on the health officer by reason of the fact that all eleven employees of the department report directly to him and the further fact that some of the staff lack adequate technical training. Consequently, venereal disease clinic treatments and other details require an undue amount of the health officer's personal attention.

It has previously been recommended that the proposed medical officer be placed in charge of the venereal disease and chest clinics and all child hygiene work. It is further recommended that one of the inspectors be designated chief inspector and placed in charge of all the department's inspectional activities and that one of the nurses be designated as head nurse. This will relieve the health commissioner of considerable detail and will leave him greater freedom to plan

and supervise the health program as a whole, to conduct health education, and to coordinate the work of the department with that of other community agencies. If the department were thus organized, the effectiveness of all employees could be substantially increased.

2. The present organization of the department leads to inefficiency and excessive red tape by reason of the fact that an unnecessary supervisory level intervenes between the health officer and the operative employees, and that those four of the twelve employees who are best trained technically are engaged largely in "overhead" administrative duties. Consequently, unnecessary delays occur in securing the approval of the health officer on matters requiring his attention, and too many matters require review and re-review.

The medical officer should be left in charge of the venereal disease and chest clinics and child hygiene work. It is recommended, however, that the position of chief inspector and head nurse be abolished and that the employees now filling these positions perform regular inspectional and nursing duties. The details of work scheduling now handled by these two employees can be taken care of more economically by the secretary to the health officer, and, since broader matters of policy have, in any event, always required the personal attention of the health officer, the abolition of these two positions will eliminate a wholly unnecessary step in review, will allow an expansion of inspectional and nursing services, and will permit at least a beginning to be made in the recommended program of health education. The number of persons reporting directly to the health officer will be increased to nine, but since there are few matters requiring the coordination of these employees, other than the work schedules and policy questions referred to above,

this change will not materially increase his work load.

The dilemma is this: in a large organization with complex interrelations between members, a restricted span of control inevitably produces excessive red tape, for each contact between organization members must be carried upward until a common superior is found. If the organization is at all large, this will involve carrying all such matters upward through several levels of officials for decision and then downward again in the form of orders and instructions—a cumbersome and time-consuming process.

The alternative is to increase the number of persons who are under the command of each officer, so that the pyramid will come more rapidly to a peak, with fewer intervening levels. But this, too, leads to difficulty, for if an officer is required to supervise too many employees, his control over them is weakened.

If it is granted, then, that both the increase and the decrease in span of control has some undesirable consequences, what is the optimum point? Proponents of a restricted span of control have suggested three, five, even eleven, as suitable numbers, but nowhere have they explained the reasoning which led them to the particular number they selected. The principle as stated casts no light on this very crucial question. One is reminded of current arguments about the proper size of the national debt.

Organization by Purpose. Process, Clientele, Place. Administrative efficiency is supposed to be increased by grouping workers according to (a) purpose, (b) process, (c) clientele, or (d) place. But from the discussion of specialization it is clear that this principle is internally inconsistent; for purpose, process, clientele, and place are competing bases of organization, and at any

given point of division the advantages of three must be sacrificed to secure the advantages of the fourth. If the major departments of a city, for example, are organized on the basis of major purpose, then it follows that all the physicians, all the lawyers, all the engineers, all the statisticians will not be located in a single department exclusively composed of members of their profession but will be distributed among the various city departments needing their services. The advantages of organization by process will thereby be partly lost.

Some of these advantages can be regained by organizing on the basis of process within the major departments. Thus there may be an engineering bureau within the public works department, or the board of education may have a school health service as a major division of its work. Similarly, within small units there may be division by area or by clientele: e.g., a fire department will have separate companies located throughout the city, while a welfare department may have intake and case work agencies in various locations. Again, however, these major types of specialization cannot be simultaneously achieved, for at any point in the organization it must be decided whether specialization at the next level will be accomplished by distinction of major purpose, major process, clientele, or area.

The conflict may be illustrated by showing how the principle of specialization according to purpose would lead to a different result from specialization according to clientele in the organization of a health department.

1. Public health administration consists of the following activities for the prevention of disease and the maintenance of healthful conditions: (1) vital statistics; (2) child hygiene—prenatal, maternity, postnatal, infant, preschool,

and school health programs; (3) communicable disease control; (4) inspection of milk, foods, and drugs; (5) sanitary inspection; (6) laboratory service; (7) health education.

One of the handicaps under which the health department labors is the fact that the department has no control over school health, that being an activity of the county board of education, and there is little or no coordination between that highly important part of the community health program and the balance of the program which is conducted by the city-county health unit. It is recommended that the city and county open negotiations with the board of education for the transfer of all school health work and the appropriation therefor to the joint health unit. . . .

2. To the modern school department is entrusted the care of children during almost the entire period that they are absent from the parental home. It has three principal responsibilities toward them: (1) to provide for their education in useful skills and knowledge and in character; (2) to provide them with wholesome play activities outside school hours; (3) to care for their health and to assure the attainment of minimum standards of nutrition.

One of the handicaps under which the school board labors is the fact that, except for school lunches, the board has no control over child health and nutrition, and there is little or no coordination between that highly important part of the child development program and the balance of the program which is conducted by the board of education. It is recommended that the city and county open negotiations for the transfer of all health work for children of school age to the board of education.

Here again is posed the dilemma of choosing between alternative, equally

plausible, administrative principles. But this is not the only difficulty in the present case, for a closer study of the situation shows there are fundamental ambiguities in the meanings of the key terms—"purpose," "process," "clientele," and "place."

"Purpose" may be roughly defined as the objective or end for which an activity is carried on; "process" as a means for accomplishing a purpose. Processes, then, are carried on in order to achieve purposes. But purposes themselves may generally be arranged in some sort of hierarchy. A typist moves her fingers in order to type; types in order to reproduce a letter, reproduces a letter in order that an inquiry may be answered. Writing a letter is then the purpose for which the typing is performed; while writing a letter is also the process whereby the purpose of replying to an inquiry is achieved. It follows that the same activity may be described as purpose or as process.

This ambiguity is easily illustrated for the case of an administrative organization. A health department conceived as a unit whose task it is to care for the health of the community is a purpose organization; the same department conceived as a unit which makes use of the medical arts to carry on its work is a process organization. In the same way, an education department may be viewed as a purpose (to educate) organization, or a clientele (children) organization; the forest service as a purpose (forest conservation), process (forest management), clientele (lumbermen and cattlemen utilizing public forests), or area (publicly owned forest lands) organization. When concrete illustrations of this sort are selected, the lines of demarcation between these categories become very hazy and unclear indeed.

"Organization by major purpose," says Gullick, "... serves to bring together in

a single large department all of those who are at work endeavoring to render a particular service."¹⁴ But what is a particular service? Is fire protection a single purpose, or is it merely a part of the purpose of public safety?—or is it a combination of purposes including fire prevention and fire fighting? It must be concluded that there is no such thing as a purpose, or a unifunctional (single-purpose) organization. What is to be considered a single function depends entirely on language and techniques.⁵ If the English language has a comprehensive term which covers both of two subpurposes it is natural to think of the two together as a single purpose. If such a term is lacking, the two subpurposes become purposes in their own right. On the other hand, a single activity may contribute to several objectives, but since they are technically (procedurally) inseparable, the activity is considered a single function or purpose.

The fact, mentioned previously, that purposes form a hierarchy, each subpurpose contributing to some more final and comprehensive end, helps to make clear the relation between purpose and process. "Organization by major process," says Gullick, "... tends to bring together in a single department all of those who are at work making use of a given special skill or technology, or are members of a given profession."¹⁶ Consider a simple skill of this kind—typing. Typing is a skill which brings about a means-end coordination of muscular movements, but a very low level in the means-end hierarchy. The content of the skill written letter is indifferent to the skill that produces it. The skill consists merely in the ability to hit the letter "r" quickly whenever the letter "r" is required by the content and to hit the letter "a" whenever the letter "a" is required by the content.

There is, then, no essential difference between a "purpose" and a "process," but only a distinction of degree. A "process" is an activity whose immediate purpose is at a low level in the hierarchy of means and ends, while a "purpose" is a collection of activities whose orienting value or aim is at a high level in the means-end hierarchy.

Next consider "clientele" and "place." These categories are really not separate from purpose, but a part of it. A complete statement of the purpose of a fire department would have to include the area served by it: "to reduce fires losses on property in the city of X." Objectives of an administrative organization are phrased in terms of a service to be provided and an area for which it is provided. Usually, the term "purpose" is meant to refer only to the first element, but the second is just as legitimately an aspect of purpose. Area of service, of course, may be a specified clientele quite as well as a geographical area. In the case of an agency which works on "shifts," time will be a third dimension of purpose—to provide a given service in a given area (or to a given clientele) during a given time period.

With this clarification of terminology, the next task is to reconsider the problem of specializing the work of an organization. It is no longer legitimate to speak of a "purpose" organization, a "process" organization, a "clientele" organization, or an "area" organization. The same unit might fall into any one of these four categories, depending on the nature of the larger organizational unit of which it was a part. A unit providing public health and medical services for school-age children in Multnomah County might be considered (1) an "area" organization if it were part of a unit providing the same service for the state of Oregon; (2) a "clientele" organization if it were

part of a unit providing similar services for children of all ages; (3) a "purpose" or a "process" organization (it would be impossible to say which) if it were part of an education department.

It is incorrect to say that Bureau A is a process bureau; the correct statement is that Bureau A is a process bureau *within* Department X.⁷ This latter statement would mean that Bureau A incorporates all the processes of a certain kind in Department X, without reference to any special subpurposes, subareas, or sub-clientele of Department X. Now it is conceivable that a particular unit might incorporate all processes of a certain kind but that these processes might relate to only certain particular subpurposes of the department purpose. In this case, which corresponds to the health unit in an education department mentioned above, the unit would be specialized by both purpose and process. The health unit would be the only one in the education department using the medical art (process) and concerned with health (subpurpose).

Even when the problem is solved of proper usage for the terms "purpose," "process," "clientele," and "area," the principles of administration give no guide as to which of these four competing bases of specialization is applicable in any particular situation. The British Machinery of Government Committee had no doubts about the matter. It considered purpose and clientele as the two possible bases of organization and put its faith entirely in the former. Others have had equal assurance in choosing between purpose and process. The reasoning which leads to these unequivocal conclusions leaves something to be desired. The Machinery of Government Committee gives this sole argument for its choice:

Now the inevitable outcome of this method of organization [by clientele] is a

tendency to Lilliputian administration. It is impossible that the specialized service which each Department has to render to the community can be of as high a standard when its work is at the same time limited to a particular class of persons and extended to every variety of provision for them, as when the Department concentrates itself on the provision of the particular service only by whomsoever required, and looks beyond the interest of comparatively small classes.⁸

The faults in this analysis are obvious. First, there is no attempt to determine how a service is to be recognized. Second, there is a bald assumption, absolutely without proof, that a child health unit, for example, in a department of child welfare could not offer services of "as high a standard" as the same unit if it were located in a department of health. Just how the shifting of the unit from one department to another would improve or damage the quality of its work is not explained. Third, no basis is set forth for adjudicating the competing claims of purpose and process—the two are merged in the ambiguous term "service." It is not necessary here to decide whether the committee was right or wrong in its recommendation; the important point is that the recommendation represented a choice, without any apparent logical or empirical grounds, between contradictory principles of administration. . . .

These contradictions and competitors have received increasing attention from students of administration during the past few years. For example, Gulick, Wallace, and Benson have stated certain advantages and disadvantages of the several modes of specialization, and have considered the conditions under which one or the other mode might best be adopted.⁹ All this analysis has been at a theoretical level—in the sense that data have not been employed to demonstrate

the superior effectiveness claimed for the different modes. But though theoretical, the analysis has lacked a theory. Since no comprehensive framework has been constructed within which the discussion could take place, the analysis has tended either to the logical one-sidedness which characterizes the examples quoted above or to inconclusiveness.

The Impasse of Administrative Theory. The four "principles of administration" that were set forth at the beginning of this paper have now been subjected to critical analysis. None of the four survived in very good shape, for in each case there was found, instead of an unequivocal principle, a set of two or more mutually incompatible principles apparently equally applicable to the administrative situation.

Moreover, the reader will see that the very same objections can be urged against the customary discussions of "centralization" versus "decentralization," which usually conclude, in effect, that "on the one hand, centralization of decision-making functions are desirable; on the other hand, there are definite advantages in decentralization."

Can anything be salvaged which will be useful in the construction of an administrative theory? As a matter of fact, almost everything can be salvaged. The difficulty has arisen from treating as "principles of administration" what are really only criteria for describing and diagnosing administrative situations. Closer space is certainly an important item in the design of a successful house; yet a house designed entirely with a view to securing a maximum of closet space—all other considerations being forgotten—would be considered, to say the least, somewhat unbalanced. Similarly, unity of command, specialization by pursuit of command, specialization by purpose, and decentralization are all items to be considered in the design of an efficient administrative organization. No

single one of these items is of sufficient importance to suffice as a guiding principle for the administrative analyst. In the design of administrative organizations, as in their operation, overall efficiency must be the guiding criterion. Mutually incompatible advantages must be balanced against each other, just as an architect weighs the advantages of additional closet space against the advantages of a larger living room.

This position, if it is a valid one, constitutes an indictment of much current writing about administrative matters. As the examples cited in this chapter amply demonstrate, much administrative analysis proceeds by selecting a single criterion and applying it to an administrative situation to reach a recommendation; while the fact that a recommendation is contradictory, criteria exist which could be applied with equal reason, but with a different result, is conveniently ignored. A valid approach to the study of administration requires that *all* the relevant diagnostic criteria be identified; that each administrative situation be analyzed in terms of the entire set of criteria; and that research be instituted to determine how weights can be assigned to the several criteria when they are, as they usually will be, mutually incompatible.

AN APPROACH TO ADMINISTRATIVE THEORY

This program needs to be considered step by step. First, what is included in the description of administrative situations for purposes of such an analysis? Second, how can weights be assigned to the various criteria to give them their proper place in the total picture?

The Description of Administrative Situations. Before a science can develop principles, it must possess concepts. Before a law of gravitation could be formu-

lated, it was necessary to have the notions of "acceleration" and "weight." The first task of administrative theory is to develop a set of concepts that will permit the description in terms relevant to the theory of administrative situations. These concepts, to be scientifically useful, must be operational; that is, their meanings must correspond to empirically observable facts or situations. The definition of *authority* given earlier in this paper is an example of an operational definition.

What is a scientifically relevant description of an organization? It is a description that, so far as possible, designates for each person in the organization what decisions that person makes and the influences to which he is subject in making each of these decisions. Current descriptions of administrative organizations fall far short of this standard. For the most part, they confine themselves to the allocation of *functions* and the formal structure of *authority*. They give little attention to the other types of organizational influence or to the system of communications. . . .¹⁰

Consider the term "centralization." How is it determined whether the operations of a particular organization are "centralized" or "decentralized"? Does the fact that field offices exist prove anything about decentralization? Might not the same decentralization take place in the bureaus of a centrally located office? A realistic analysis of centralization must include a study of the allocation of decisions in the organization and the methods of influence that are employed by the higher levels to affect the decisions at the lower levels. Such an analysis would reveal a much more complex picture of the decision-making process than any enumeration of the geographical locations of organizational units at the different levels.

Administrative description suffers currently from superficiality, oversimplification, lack of realism. It had confined itself too closely to the mechanism of authority and has failed to bring within its orbit the other, equally important, modes of influence on organizational behavior. It has refused to undertake the tiresome task of studying the actual allocation of decision-making functions. It has been satisfied to speak of "authority," "centralization," "span of control," "function," without seeking operational definitions of these terms. Until administrative description reaches a higher level of sophistication, there is little reason to hope that rapid progress will be made toward the identification and verification of valid administrative principles.

Does this mean that a purely formal description of an administrative organization is impossible—that a relevant description must include an account of the content of the organization's decisions? This is a question that is almost impossible to answer in the present state of knowledge of administrative theory. One thing seems certain: content plays a greater role in the application of administrative principles than is allowed for in the formal administrative theory of the present time. This is a fact that is beginning to be recognized in the literature of administration. If one examines the chain of publications extending from Mooney and Reiley, through Gulick and the President's Committee contrary, to Schuyler Wallace and Benson, he sees a steady shift of emphasis from the "principles of administration" themselves to a study of the conditions under which competing principles are respectively applicable. Recent publications seldom say that "organization should be by purpose," but rather that "under such and such conditions purpose organization is desirable." It is to these condi-

tions which underlie the application of the proverbs of administration that administrative theory and analysis must turn in their search for really valid principles to replace the proverbs.

The Diagnosis of Administrative Situations. Before any positive suggestions can be made, it is necessary to digress a bit and to consider more closely the exact nature of the propositions of administrative theory. The theory of administration is concerned with how an organization should be constructed and operated in order to accomplish its work efficiently. A fundamental principle of administration, which follows almost immediately from the rational character of "good" administration, is that among several alternatives involving the same expenditure that one should always be selected which leads to the greatest accomplishment of administrative objectives; and among several alternatives that lead to the same accomplishment that one should be selected which involves the least expenditure. Since this "principle of efficiency" is characteristic of any activity that attempts rationally to maximize the attainment of certain ends with the use of scarce means, it is as characteristic of economic theory as it is of administrative theory. The "administrative man" takes his place alongside the classical "economic man."¹¹

Actually, the "principle" of efficiency should be considered a definition rather than a principle: it is a definition of what is meant by "good" or "correct" administrative behavior. It does not tell how accomplishments are to be maximized, but merely states that this maximization is the aim of administrative activity, and that administrative theory must disclose under what conditions the maximization takes place.

Now what are the factors that determine the level of efficiency which is achieved by an administrative organiza-

tion? It is not possible to make an exhaustive list of these but the principal categories can be enumerated. Perhaps the simplest method of approach is to consider the single member of the administrative organization and ask what the limits are to the quantity and quality of his output. These limits include (a) limits on his ability to perform and (b) limits on his ability to make correct decisions. To the extent that these limits are removed, the administrative organization approaches its goal of high efficiency. Two persons, given the same skills, the same objectives and values, the same knowledge and information, can rationally decide only upon the same course of action. Hence, administrative theory must be interested in the factors that will determine with what skills, values, and knowledge the organization member undertakes his work. These are the "limits" to rationality with which the principles of administration must deal.

On one side, the individual is limited by those skills, habits, and reflexes which are no longer in the realm of the conscious. His performance, for example, may be limited by his manual dexterity or his reaction time or his strength. His decision-making processes may be limited by the speed of his mental processes, his skill in elementary arithmetic, and so forth. In this area, the principles of administration must be concerned with the physiology of the human body and with the laws of skill-training and of habit. This is the field that has been most successfully cultivated by the followers of Taylor and in which has been developed time-and-motion study and the therblig.

On a second side, the individual is limited by his values and those conceptions of purpose which influence him in making decisions. If his loyalty to the organization is high, his decisions may evidence sincere acceptance of the ob-

jectives set for the organization; if that loyalty is lacking, personal motives may interfere with his administrative efficiency. If his loyalties are attached to the bureau by which he is employed, he may sometimes make decisions that are inimical to the larger unit of which the bureau is a part. In this area the principles of administration must be concerned with the determinants of loyalty and morale, with leadership and initiative, and with the influences that determine where the individual's organizational loyalties will be attached.

On a third side, the individual is limited by the extent of his knowledge of things relevant to his job. This applies both to the basic knowledge required in decision-making—a bridge designer must know the fundamentals of mechanics—and to the information that is required to make his decisions appropriate to the given situation. In this area, administrative theory is concerned with such fundamental questions as these: What are the limits on the mass of knowledge that human minds can accumulate and apply? How rapidly can knowledge be assimilated? How is specialization in the administrative organization to be related to the specializations of knowledge that are prevalent in the community's occupational structure? How is the system of communication to channel knowledge and information to the appropriate decision-points? What types of knowledge can, and what types cannot, be easily transmitted? How is the need for intercommunication of information affected by the modes of specialization in the organization? This is perhaps the *terra incognita* of administrative theory, and undoubtedly its careful exploration will cast great light on the proper application of the proverbs of administration.

Perhaps this triangle of limits does not completely bound the area of rationality,

and other sides need to be added to the figure. In any case, this enumeration will serve to indicate the kinds of considerations that must go into the construction of valid and noncontradictory principles of administration.

An important fact to be kept in mind is that the limits of rationality are variable limits. Most important of all, consciousness of the limits may in itself alter them. Suppose it were discovered in a particular organization, for example, that organizational loyalties attached to small units had frequently led to a harmful degree of intraorganizational competition. Then, a program which trained members of the organization to be conscious of their loyalties, and to subordinate loyalties to the smaller group to those of the large, might lead to a very considerable alteration of the limits in that organization.¹²

A related point is that the term "rational behavior" as employed here, refers to rationality when that behavior is evaluated in terms of the objectives of the larger organization; for, as just pointed out, the difference in direction of the individual's aims from those of the larger organization is just one of those elements of nonrationality with which the theory must deal.

A final observation is that, since administrative theory is concerned with the nonrational limits of the rational, it follows that the larger the area in which rationality has been achieved the less important is the exact form of the administrative organization. For example, the function of plan preparation, or design, if it results in a written plan that can be communicated interpersonally without difficulty, can be located almost anywhere in the organization without affecting results. All that is needed is a procedure whereby the plan can be given authoritative status, and this can be provided in a number of ways. A discussion,

then, of the proper location for a planning or designing unit is apt to be highly inconclusive and is apt to hinge on the personalities in the organization and their relative enthusiasm, or lack of it, toward the planning function rather than upon any abstract principles of good administration.¹³

On the other hand, when factors of communication or faiths or loyalty are crucial to the making of a decision, the location of the decision in the organization is of great importance. The method of allocating decisions in the army, for instance, automatically provides (at least in the period prior to the actual battle) that each decision will be made where the knowledge is available for coordinating it with other decisions.

Assigning Weights to the Criteria. A first step, then, in the overhauling of the proverbs of administration is to develop a vocabulary, along the lines just suggested, for the description of administrative organization. A second step, which has also been outlined, is to study the limits of rationality in order to develop a complete and comprehensive enumeration of the criteria that must be weighed in evaluating an administrative organization. The current proverbs represent only a fragmentary and unsystematized portion of these criteria.

When these two tasks have been carried out, it remains to assign weights to the criteria. Since the criteria, or "proverbs," are often mutually competitive or contradictory, it is not sufficient merely to identify them. Merely to "know," for example, that a specified change in organization will reduce the span of control is not enough to justify the change. This gain must be balanced against the possible resulting loss of contact between the higher and lower ranks of the hierarchy. Hence, administrative theory must also be concerned with the question of the weights that are to be applied to

these criteria—to the problems of their relative importance in any concrete situation. This question is not one that can be solved in a vacuum. Arm-chair philosophizing about administration—of which the present paper is an example—has gone about as far as it can profitably go in this particular direction. What is needed now is empirical research and experimentation to determine the relative desirability of alternative administrative arrangements.

The methodological framework for this research is already at hand in the principle of efficiency. If an administrative organization whose activities are susceptible to objective evaluation be subjected to study, then the actual change in accomplishment that results from modifying administrative arrangements in these organizations can be observed and analyzed.

There are two indispensable conditions to successful research along these lines. First, it is necessary that the objectives of the administrative organization under study be defined in concrete terms so that results, expressed in terms of these objectives, can be accurately measured. Second, it is necessary that sufficient experimental control be exercised to make possible the isolation of the particular effect under study from other disturbing factors that might be operating on the organization at the same time.

These two conditions have seldom been even partially fulfilled in so-called "administrative experiments." The mere fact that a legislature passes a law creating an administrative agency, that the agency operates for five years, that the agency is finally abolished, and that a historical study is then made of the agency's operations is not sufficient to make of that agency's history an "administrative experiment." Modern American legislation is full of such "experiments" which furnish orators in neigh-

boring states with abundant ammunition when similar issues arise in their balliwicks, but which provide the scientific investigator with little or nothing in the way of objective evidence, one way or the other. . . .

Perhaps the program outlined here will appear an ambitious or even a quixotic one. There should certainly be no illusions, in undertaking it, as to the length and deviousness of the path. It is hard to see, however, what alternative remains open. Certainly neither the practitioner of administration nor the theoretician can be satisfied with the poor analytic tools that the proverbs provide him. Nor is there any reason to believe that a less drastic reconversion than that outlined here will rebuild those tools to usefulness.

It may be objected that administration cannot aspire to be a "science"; that by the nature of its subject it cannot be more than an "art." Whether true or false, this objection is irrelevant to the present discussion. The question of how "exact" the principles of administration can be made is one that only experience can answer. But as to whether they should be logical or illogical there can be no debate. Even an "art" cannot be founded on proverbs.

NOTES

1. Let it be thought that this deficiency is peculiar to the science—or "art"—of administration, it should be pointed out that the same trouble is shared by most Freudian psychological theories, as well as by some sociological theories.
2. Luther Gulick, "Notes on the Theory of Organization," in Luther Gulick and L. Urwick (eds.), *Papers on the Science of Administration* (Institute of Public Administration, Columbia University, 1937), p. 9.
3. This point is discussed in Herbert A. Simon, "Decision-Making and Administrative Organization," *4 Public Administration Review* 20-21 (Winter, 1944).

4. Gulick and Urwick (eds.), *op. cit.*, p. 21.
5. If this is correct, then any attempt to prove that certain activities belong in a single department because they relate to a single purpose is doomed to fail. See, for example, John M. Gaus and Leon Wolcott, *Public Administration and the U.S. Department of Agriculture* (Public Administration Service, 1940).
6. *Op. cit.*, p. 23.
7. This distinction is implicit in most of Gulick's analysis of specialization. However, since he cites as examples single departments within a city, and since he usually speaks of "grouping activities" rather than "dividing work," the relative character of these categories is not always apparent in this discussion (*op. cit.*, pp. 15-30).
8. *Report of the Machinery of Government Committee* (H. M. Stationery Office, 1918).
9. Gulick, "Notes on the Theory of Organization," pp. 21-30; Schuyler Wallace, *Federal Departmentalization* (Columbia University Press, 1941); George C. S. Benson, "Internal Administrative Organization," *1 Public Administration Review* 473-486 (Autumn, 1941).
10. The monograph by Macmahon, Millet, and Ogden, *op. cit.*, perhaps approaches nearer than any other published administrative study to the sophistication required in administrative description. See, for example, the discussion on pp. 233-236 of headquarters-field relationships.
11. For an elaboration of the principle of efficiency and its place in administrative theory see Clarence E. Ridley and Herbert A. Simon, *Measuring Municipal Activities* (International City Managers' Association, 2nd ed., 1943), particularly Chapter 1 and the preface to the second edition.
12. For an example of the use of such training, see Herbert A. Simon and William Divine, "Controlling Human Factors in an Administrative Experiment," *1 Public Administration Review* 487-492 (Autumn, 1941).
13. See, for instance, Robert A. Walker, *The Planning Function in Urban Government* (University of Chicago Press, 1941), pp. 166-175. Walker makes out a strong case for attaching the planning agency to the chief executive. But he rests his entire case on the rather slender reed that "as long as the planning agency is outside the governmental structure . . . planning will tend to encounter resistance from public officials as an invasion of their responsibility and jurisdiction." This "resistance" is precisely the type of nonnational loyalty which has been referred to previously, and which is certainly a variable.

11

Foundations of the Theory of Organization

Philip Selznick

Trades unions, governments, business corporations, political parties, and the like are formal structures in the sense that they represent rationally ordered instruments for the achievement of stated goals. "Organization," we are told, "is the arrangement of personnel for facilitating the accomplishment of some agreed purpose through the allocation of functions and responsibilities."¹ Or, defined more generally, formal organization is "a system of consciously coordinated activities or forces of two or more persons."² Viewed in this light, formal organization is the structural expression of rational action. The mobilization of technical and managerial skills requires a pattern of coordination, a systematic ordering of positions and duties which defines a chain of command and makes possible the administrative integration of specialized functions. In this context *delegation* is the primordial organization act, a precarious venture which requires the continuous elaboration of formal mechanisms of coordination and control. The security of all participants, and of the system as a whole, generates a persistent pressure for the institutionalization of relationships, which are thus removed from the uncertainties of individual fealty or sentiment. Moreover, it is necessary for the relations within the structure to be determined in such a way that individuals will be interchangeable and the organization will thus be free of

dependence upon personal qualities.³ In this way, the formal structure becomes subject to calculable manipulation, an instrument of rational action.

But as we inspect these formal structures we begin to see that they never succeed in conquering the nonrational dimensions of organizational behavior. The latter remain at once indispensable to the continued existence of the system of coordination and at the same time the source of friction, dilemma, doubt, and ruin. This fundamental paradox arises from the fact that rational action systems are inescapably imbedded in an institutional matrix, in two significant senses: (1) the action system—or the formal structure of delegation and control which is its organizational expression—is itself only an aspect of a concrete social structure made up of individuals who may interact as *wholes*, not simply in terms of their formal roles within the system; (2) the formal system, and the social structure within which it finds concrete existence, are alike subject to the pressure of an institutional environment to which some overall adjustment must be made. The formal administrative design can never adequately or fully reflect the concrete organization to which it refers, for the obvious reason that no abstract plan or pattern can—or may, if it is to be useful—exhaustively describe an empirical totality. At the same time, that which is not included

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in the abstract design (as reflected, for example, in a staff-and-line organization chart) is vitally relevant to the maintenance and development of the formal system itself.

Organization may be viewed from two standpoints which are analytically distinct but which are empirically united in a context of reciprocal consequences. On the one hand, any concrete organizational system is an economy; at the same time, it is an adaptive social structure. Considered as an economy, organization is a system of relationships which define the availability of scarce resources and which may be manipulated in terms of efficiency and effectiveness. It is the economic aspect of organization which commands the attention of management technicians and, for the most part, students of public as well as private administration.⁴ Such problems as the span of executive control, the role of staff or auxiliary agencies, the relation of headquarters to field offices, and the relative merits of single or multiple executive boards are typical concerns of the science of administration. The coordinate scalar, and functional principles, as elements of the theory of organization, are products of the attempt to explicate the most general features of organization as a "technical problem" or, in our terms, as an economy.

Organization as an economy is, however, necessarily conditioned by the organic states of the concrete structure, outside of the systematics of delegation and control. This becomes especially evident as the attention of leadership is directed toward such problems as the legitimacy of authority and the dynamics of persuasion. It is recognized implicitly in action and explicitly in the work of a number of students that the possibility of manipulating the system of coordination depends on the extent to which that system is operating within an envi-

ronment of effective inducement to individual participants and of conditions in which the stability of authority is assured. This is in a sense the fundamental thesis of Barnard's remarkable study, *The Functions of the Executive*. It is also the underlying hypothesis which makes it possible for Urwick to suggest that "proper" or formal channels in fact function to "confirm and record" decisions arrived at by more personal means.⁵ We meet it again in the concept of administration as a process of education, in which the winning of consent and support is conceived to be a basic function of leadership.⁶ In short, it is recognized that control and consent cannot be divorced even within formally authoritarian structures.

The indivisibility of control and consent makes it necessary to view formal organizations as cooperative systems, widening the frame of reference of those concerned with the manipulation of organizational resources. At the point of action, of executive decision, the economic aspect of organization provides inadequate tools for control over the concrete structure. This idea may be readily grasped if attention is directed to the role of the individual within the organizational economy. From the standpoint of organization as a formal system, persons are viewed functionally, in respect to their roles, as participants in assigned segments of the cooperative system. But in fact individuals have a propensity to resist depersonalization, to spill over the boundaries of their segmentary roles, to participate as wholes. The formal systems (at an extreme, the disposition of "rifles" at a military perimeter) cannot take account of the deviations thus introduced, and consequently break down as instruments of control when relied upon alone. The whole individual raises new problems for the organization, partly because of the needs of

his own personality, partly because he brings with him a set of established habits as well, perhaps, as commitments to special groups outside of the organization.

Unfortunately for the adequacy of formal systems of coordination, the needs of individuals do not permit a singleminded attention to the stated goals of the system within which they have been assigned. The hazard inherent in the act of delegation derives essentially from this fact. Delegation is an organizational act, having to do with formal assignments to functions and powers. Theoretically, these assignments are made to roles or official positions, not to individuals as such. In fact, however, delegation necessarily involves concrete individuals who have interests and goals which do not always coincide with the goals of the formal system. As a consequence, individual personalities may offer resistance to the demands made upon them by the official conditions of delegation. These resistances are not accounted for within the categories of coordination and delegation, so that when they occur they must be considered as unpredictable and accidental. Observations of this type of situation within formal structures are sufficiently commonplace. A familiar example is that of delegation to a subordinate who is also required to train his own replacement. The subordinate may resist this demand in order to maintain unique access to the "mysteries" of the job, and thus insure his indispensability to the organization.

In large organizations, deviations from the formal system tend to become institutionalized, so that "unwritten laws" and informal associations are established. Institutionalization removes such deviations from the realm of personality differences, transforming them into a persistent structural aspect of formal organizations.⁷ These institutionalized

rules and modes of informal cooperation are normally attempted by participants in the formal organization to control the group relations which form the environment of organizational decisions. The informal patterns (such as cliques) arise spontaneously, are based on personal relationships, and are usually directed to the control of some specific situation. They may be generated anywhere within a hierarchy, often with deleterious consequences for the formal goals of the organization, but they may also function to widen the available resources of executive control and thus contribute to rather than hinder the achievement of the stated objectives of the organization. The deviations tend to force a shift away from the purely formal system as the effective determinant of behavior to (1) a condition in which informal patterns buttress the formal, as through the manipulation of sentiment within the organization in favor of established authority; or (2) a condition wherein the informal controls effect a consistent modification of formal goals, as in the case of some bureaucratic patterns.⁸ This trend will eventually result in the formalization of erstwhile informal activities, with the cycle of deviation and transformation beginning again on a new level.

The relevance of informal structures to organizational analysis underlines the significance of conceiving of formal organizations as cooperative systems. When the totality of interacting groups and individuals becomes the object of inquiry, the latter is not restricted by formal, legal, or procedural dimensions. The state of the system emerges as a significant point of analysis, as when an internal situation charged with conflict qualifies and informs actions ostensibly determined by formal relations and objectives. A proper understanding of the organizational process must make it pos-

sible to interpret changes in the formal system—new appointments or rules or reorganizations—in their relation to the informal and unavowed ties of friendship, class loyalty, power cliques, or external commitment. This is what it means "to know the score." . . .

To recognize the sociological relevance of formal structures is not, however, to have constructed a theory of organization. It is important to set the framework of analysis, and much is accomplished along this line when, for example, the nature of authority in formal organizations is reinterpreted to emphasize the factors of cohesion and persuasion as against legal or coercive sources.⁹ This redefinition is logically the same as that which introduced the conception of the self as social. The latter helps make possible, but does not of itself fulfill, the requirements for a dynamic theory of personality. In the same way, the definition of authority as conditioned by sociological factors of sentiment and cohesion—or more generally the definition of formal organizations as cooperative systems—only sets the stage, as an initial requirement, for the formulation of a theory of organization.

STRUCTURAL-FUNCTIONAL ANALYSIS

Cooperative systems are constituted of individuals interacting as wholes in relation to a formal system of coordination. The concrete structure is therefore a resultant of the reciprocal influences of the formal and informal aspects of organization. Furthermore, this structure is itself a totality, an adaptive "organism" reacting to influences upon it from an external environment. These considerations help to define the objects of inquiry, but to progress to a system of predicates *about* these objects it is necessary to set forth an analytical method which seems to

be fruitful and significant. The method must have a relevance to empirical materials, which is to say, it must be more specific in its reference than discussions of the logic or methodology of social science.

The organon which may be suggested as peculiarly helpful in the analysis of adaptive structures has been referred to as "structural-functional analysis."¹⁰ This method may be characterized in a sentence: *Structural-functional analysis relates contemporary and variable behavior to a presumptively stable system of needs and mechanisms.* This means that a given empirical system is deemed to have basic needs, essentially related to self-maintenance; the system develops repetitive means of self-defense; and day-to-day activity is interpreted in terms of the function served by that activity for the maintenance and defense of the system. Put thus generally, the approach is applicable on any level in which the determine "states" of empirically isolable systems undergo self-impelled and repetitive transformations when impinged upon by external conditions. This self-impulsion suggests the relevance of the term "dynamic," which is often used in referring to physiological, psychological, or social systems to which this type of analysis has been applied.¹¹

It is a postulate of the structural-functional approach that the basic need of all empirical systems is the maintenance of the integrity and continuity of the system itself. Of course, such a postulate is primarily useful in directing attention to a set of "derived imperatives" or needs which are sufficiently concrete to characterize the system at hand.¹² It is perhaps rash to attempt a catalogue of these imperatives for formal organizations, but some suggestive formulation is needed in the interests of setting forth the type of analysis under discussion. In formal organizations, the

"maintenance of the system" as a generic need may be specified in terms of the following imperatives:

1. *The security of the organization as a whole in relation to social forces in its environment.* This imperative requires continuous attention to the possibilities of encroachment and to the forestalling of threatened aggressions or deteriorious (though perhaps unintended) consequences from the actions of others.
2. *The stability of the lines of authority and communication.* One of the persistent reference-points of administrative decision is the weighing of consequences for the continued capacity of leadership to control and to have access to the personnel or ranks.
3. *The stability of informal relations within the organization.* Ties of sentiment and self-interest are evolved as unacknowledged but effective mechanisms of adjustment of individuals and subgroups to the conditions of life within the organization. These ties represent a cementing of relationships which sustains the formal authority in day-to-day operations and widens opportunities for effective communication.¹³ Consequently, attempts to "upset" the informal structure, either frontally or as an indirect consequence of formal reorganization, will normally be met with considerable resistance.

4. *The continuity of policy and of the sources of its determination.* For each level within the organization, and for the organization as a whole, it is necessary that there be a sense that action taken in the light of a given policy will not be placed in continuous jeopardy. Arbitrary or unpredictable changes in policy undermine the significance of (and therefore the attention to) day-to-day action by injecting a note of capriciousness. At the same time, the organization will seek stable roots (or firm statutory authority or

popular mandate) so that a sense of the permanency and legitimacy of its acts will be achieved.

5. *A homogeneity of outlook with respect to the meaning and role of the organization.* The minimization of disaffection requires a unity derived from a common understanding of what the character of the organization is meant to be. When this homogeneity breaks down, as in situations of internal conflict over basic issues, the continued existence of the organization is endangered. On the other hand, one of the signs of "healthy" organization is the ability to effectively orient new members and readily slough off those who cannot be adapted to the established outlook.

This catalogue of needs cannot be thought of as final, but it approximates the stable system generally characteristic of formal organizations. These imperatives are derived, in the sense that they represent the conditions for survival or self-maintenance of cooperative systems of organized action. An inspection of these needs suggests that organizational survival is intimately connected with the struggle for relative prestige, both for the organization and for elements and individuals within it. It may therefore be useful to refer to a *prestige-survival motif* in organizational behavior as a shorthand way of relating behavior needs, especially when the exact nature of the needs remains in doubt. However, it must be emphasized that prestige-survival in organizations does not derive simply from like motives in individuals. Loyalty and self-sacrifice may be individual expressions of organizational or group egotism and self-consciousness. The concept of organizational need directs analysis to the *internal relevance* of organizational behavior. This is especially pertinent with respect to discretionary action undertaken by agents

manifestly in pursuit of formal goals. The question then becomes one of relating the specific act of discretion to some pre-sumptively stable organizational need. In other words, it is not simply action plainly oriented internally (such as in-service training) but also action presumably oriented externally which must be inspected for its relevance to internal conditions. This is of prime importance for the understanding of bureaucratic behavior, for it is of the essence of the latter that action formally undertaken for substantive goals be weighed and transformed in terms of its consequences for the position of the officialdom. . . .

The setting of structural-functional analysis as applied to organizations requires some qualification, however. Let us entertain the suggestion that the interesting problem in social science is not so much why men act the way they do as why men in certain circumstances must act the way they do. This emphasis upon constraint, if accepted, releases us from an ubiquitous attention to behavior in general, and especially from any undue fixation upon statistics. On the other hand, it has what would seem to be salutary consequence of focusing inquiry upon certain necessary relationships of the type "if . . . then," for example: If the cultural level of the rank and file members of a formally democratic organization is below that necessary for participation in the formulation of policy, then there will be pressure upon the leaders to use the tools of demagoguery.

Is such a statement universal in its applicability? Surely not in the sense that one can predict without remainder the nature of all or even most political groups in a democracy. Concrete behavior is a resultant, a complex vector, shaped by the operation of a number of such general constraints. But there is a test of general applicability: it is that of noting whether the relation made ex-

PLICIT must be taken into account in action. This criterion represents an empirical test of the significance of social generalizations. If a theory is significant it will state a relation which will either (1) be taken into account as an element of achieving control; or (2) be ignored only at the risk of losing control and will evidence itself in a ramification of objective or unintended consequences.¹⁴ It is a corollary of this principle of significance that investigation must search out the underlying factors in organizational action, which requires a kind of intensive analysis of the same order as psychoanalytic probing.

A frame of reference which invites attention to the constraints upon behavior will tend to highlight tensions and dilemmas, the characteristic paradoxes generated in the course of action. The dilemma may be said to be the handmaiden of structural-functional analysis, for it introduces the concept of *commitment* or *involvement* as fundamental to organizational analysis. A dilemma in human behavior is represented by an inescapable commitment which cannot be reconciled with the needs of the organism or the social system. There are many spurious dilemmas which have to do with verbal contradictions, but inherent dilemmas to which we refer are of a more profound sort, for they reflect the basic nature of the empirical system in question. An economic order committed to profit as its sustaining incentive may, in Marxist terms, sow the seed of its own destruction. Again, the anguish of man, torn between finitude and pride, is not a matter of arbitrary and replaceable assumptions but is a reflection of the psychological needs of the human organism, and is concretized in his commitment to the institutions which command his life; he is in the world and of it, inescapably involved in its goals and demands; at the same time, the needs of the spirit are

compelling, proposing modes of salvation which have continuously disquieting consequences for worldly involvements. In still another context, the need of the human organism for affection and response necessitates a commitment to elements of the culture which can provide them; but the rule of the super-ego is uncertain since it cannot be completely reconciled with the need for libidinal satisfaction. . . .

Organizational analysis, too, must find its selective principle; otherwise the indeterminate attempts to relate activity functionally to needs will produce little in the way of significant theory. Such a principle might read as follows: *Our frame of reference is to select out those needs which cannot be fulfilled within approved avenues of expression and thus must have recourse to such adaptive mechanisms as ideology and to the manipulation of formal processes and structures in terms of informal goals.* This formulation has many difficulties, and is not presented as conclusive, but it suggests the kind of principle which is likely to separate the quick and the dead, the meaningful and the trite, in the study of cooperative systems in organized action.¹⁵

The frame of reference outlined here for the theory of organization may now be identified as involving the following major ideas: (1) the concept of organization as cooperative systems, adaptive social structures, made up of interacting individuals, subgroups, and informal plus formal relationships; (2) structural-functional analysis, which relates variable aspects of organization (such as goals) to stable needs and self-defensive mechanisms; (3) the concept of recalcitrance as a quality of the tools of social action, involving a break in the continuum of adjustment and defining an environment of constraint, commitment, and tension. This frame of reference is suggested as providing a specifiable area

of relations within which predicates in the theory of organization will be sought, and at the same time setting forth principles of selection and relevance in our approach to the data of organization.

It will be noted that we have set forth this frame of reference within the overall context of social action. The significance of events may be defined by their place and operational role in a means-end scheme. If functional analysis searches out the elements important for the maintenance of a given structure, and that structure is one of the materials to be manipulated in action, then that which is functional in respect to the structure is also functional in respect to the action system. This provides a ground for the significance of functionally derived theories. At the same time, relevance to control in action is the empirical test of their applicability or truth.

CO-OPERATION AS A MECHANISM OF ADJUSTMENT

The frame of reference stated above is in fact an amalgam of definition, resolution, and substantive theory. There is an element of *definition* on conceiving of formal organizations as cooperative systems, though of course the interaction of informal and formal patterns is a question of fact; in a sense, we are *resolving* to employ structural-functional analysis on the assumption that it will be fruitful to do so, though here, too, the specification of needs or derived imperatives is a matter for empirical inquiry; and our predication of recalcitrance as a quality of the tools of action is itself a *substantive theory*, perhaps fundamental to a general understanding of the nature of social action.

A theory of organization requires more than a general frame of reference, though the latter is indispensable to in-

form the approach of inquiry to any given set of materials. What is necessary is the construction of generalizations concerning transformations within and among cooperative systems. These generalizations represent, from the standpoint of particular cases, possible predicaments which are relevant to the materials as we know them in general, but which are not necessarily controlling in all circumstances. A theory of transformations in organization would specify those states of the system which resulted typically in predictable, or at least understandable, changes in such aspects of organization as goals, leadership, doctrine, efficiency, effectiveness, and size. These empirical generalizations would be systematized as they were related to the stable needs of the cooperative system.

Changes in the characteristics of organizations may occur as a result of many different conditions, not always or necessarily related to the processes of organization as such. But the theory of organization must be selective, so that explanations of transformations will be sought within its own assumptions or frame of reference. Consider the question of size. Organizations may expand for many reasons—the availability of markets, legislative delegations, the swing of opinion—which may be accidental from the point of view of the organizational process. To explore changes in size (as of, say, a trades union) as related to changes in nonorganizational conditions may be necessitated by the historical events to be described, but it will not of itself advance the frontiers of the theory of organization. However, if “the innate propensity of all organizations to expand” is asserted as a function of “the inherent instability of incentives,”¹⁶ then transformations have been stated within the terms of the theory of organization itself. It is likely that in many cases the generalization in question may represent only a

minor aspect of the empirical changes, but these organizational relations must be made explicit if the theory is to receive development.

In a frame of reference which specifies needs and anticipates the formulation of a set of self-defensive responses or mechanisms, the latter appear to constitute one kind of empirical generalization or “possible predicate” within the general theory. The needs of organizations (whatever investigation may determine them to be) are posited as attributes of all organizations, but the responses to disequilibrium will be varied. The mechanisms used by the system in fulfillment of its needs will be repetitive and thus may be described as a specifiable set of assertions within the theory of organization, but any given organization may or may not have recourse to the characteristic modes of response. Certainly no given organization will employ all of the possible mechanisms which are theoretically available. When Barnard speaks of an “innate propensity of organization to expand,” he is in fact formulating one of the general mechanisms, namely, expansion, which is a characteristic mode of response available to an organization under pressure from within. These responses necessarily involve a transformation (in this case, size) of some structural aspect of the organization.

Other examples of the self-defensive mechanisms available to organizations may derive primarily from the responses of these organizations to the institutional environments in which they live. The tendency to construct ideologies, reflecting the need to come to terms with major social forces, is one such mechanism. Less well understood as a mechanism of organizational adjustment is what we may term *co-optation*. Some statement of the meaning of this concept may aid in clarifying the foregoing analysis.

Co-optation is the process of absorbing new elements into the leadership or policy-determining structure of an organization as a means of averting threats to its stability or existence. This is a defensive mechanism, formulated as one of a number of possible predicates available for the interpretation of organizational behavior. *Co-optation* tells us something about the process by which an institutional environment impinges itself upon an organization and effects changes in its leadership and policy. Formal authority may resort to *co-optation* under the following general conditions:

1. When there exists a hiatus between consent and control, so that the legitimacy of the formal authority is called into question. The “invisibility” of consent and control refers, of course, to an optimum situation. Where control lacks an adequate measure of consent, it may revert to coercive measures or attempt somehow to win the consent of the governed. One means of winning consent is to co-opt elements into the leadership or organization, usually elements which in some way reflect the sentiment, or possess the confidence of the relevant public or mass. As a result, it is expected that the new elements will lend respectability or legitimacy to the organs of control and thus reestablish the stability of formal authority. This process is widely used, and in many different contexts. It is met in colonial countries, where the organs of alien control reaffirm their legitimacy by co-opting native leaders into the colonial administration. We find it in the phenomenon of “crisis-patriotism” wherein formally disfranchised groups are temporarily given representation in the councils of government in order to win their solidarity in a time of national stress. *Co-optation* is presently being considered by the United States Army

in its study of proposals to give enlisted personnel representation in the court-martial machinery—a clearly adaptive response to stresses made explicit during the war, the lack of confidence in the administration of army justice. The “unity” parties of totalitarian states are another form of *co-optation*; company unions or some employee representation plans in industry are still another. In each of these cases, the response of formal authority (private or public, in a large organization or a small one) is an attempt to correct a state of imbalance by *formal* measures. It will be noted, moreover, that what is shared is the responsibility for power rather than power itself. These conditions define what we shall refer to as *formal co-optation*.

2. *Co-optation* may be a response to the pressure of specific centers of power. This is not necessarily a matter of legitimacy or of a general and diffuse lack of confidence. These may be well established; and yet organized forces which are able to threaten the formal authority may effectively shape its structure and policy. The organization in respect to its institutional environment—or the leadership in respect to its ranks—must take these forces into account. As a consequence, the outside elements may be brought into the leadership or policy-determining structure, may be given a place as a recognition of and concession to the resources they can independently command. The representation of interests through administrative constituencies is a typical example of this process. Or, within an organization, individuals upon whom the group is dependent for funds or other resources may insist upon and receive a share in the determination of policy. This form of cooperation is typically expressed in informal terms; for the problem is not one of responding to a state of imbalance with respect to the “people as a whole” but rather one of

meeting the pressure of specific individuals or interest-groups which are in a position to enforce demands. The latter are interested in the substance of power and not its forms. Moreover, an open acknowledgement of capitulation to specific interests may itself undermine the sense of legitimacy of the formal authority within the community. Consequently, there is a positive pressure to refrain from explicit recognition of the relationship established. This form of the co-operative mechanism, having to do with the sharing of power as a response to specific pressures, may be termed *informal co-optation*.

Co-optation reflects a state of tension between formal authority and social power. The former is embodied in a particular structure and leadership, but the latter has to do with subjective and objective factors which control the loyalties and potential manipulability of the community. Where the formal authority is an expression of social power, its stability is assured. On the other hand, when it becomes divorced from the sources of social power its continued existence is threatened. This threat may arise from the sheer alienation of sentiment or from the fact that other leaderships have control over the sources of social power. Where a formal authority has been accustomed to the assumption that its constituents respond to it as individuals, there may be a rude awakening when organization of those constituents on a non-governmental basis creates nuclei of power which are able effectively to demand a sharing of power.¹⁷

The significance of co-optation for organizational analysis is not simply that there is a change in or a broadening of leadership, and that this is an adaptive response, but also that this change is consequential for the character and role of the organization. Co-optation involves com-

mitment, so that the groups to which adaptation has been made constrain the field of choice available to the organization or leadership in question. The character of the co-opted elements will necessarily shape (inhibit or broaden) the modes of action available to the leadership which has won adaptation and security at the price of commitment. The concept of co-optation thus implicitly sets forth the major points of the frame of reference outlined above: it is an adaptive response of a cooperative system to a stable need, generating transformations which reflect constraints enforced by the recalcitrant tools of action.

NOTES

1. John M. Gaus, "A Theory of Organization in Public Administration," in *The Frontiers of Public Administration* (Chicago: University of Chicago Press, 1936), p. 66.
2. Chester I. Barnard, *The Functions of the Executive* (Cambridge: Harvard University Press, 1938), p. 73.
3. Cf. Talcott Parsons' generalization (after Max Weber) of the "law of the increasing rationality of action systems," in *The Structure of Social Action* (New York: McGraw-Hill, 1937), p. 752.
4. See Luther Gulick and Lydall Urwick (eds.), *Papers on the Science of Administration* (New York: Institute of Public Administration, Columbia University, 1937); Lydall Urwick, *The Elements of Administration* (New York, Harper, 1943); James D. Moorey and Alan C. Reiley, *The Principles of Organization* (New York: Harper, 1939); H. S. Denison, *Organization Engineering* (New York: McGraw-Hill, 1931).
5. Urwick, *The Elements of Administration*, *op. cit.*, p. 47.
6. See Gaus, *op. cit.* Studies of the problem of morale are instances of the same orientation, having received considerable impetus in recent years from the work of the Harvard Business School group.
7. The creation of informal structures within various types of organizations has received explicit recognition in recent years. See F. J. Roethlisberger and W. J. Dickson, *Manage-*

- ment and the Worker (Cambridge: Harvard University Press, 1941), p. 524; also Barnard, *op. cit.*, c. ix; and Wilbert E. Moore, *Industrial Relations and the Social Order* (New York: Macmillan, 1946), chap. xv.
8. For an analysis of the latter in these terms, see Philip Selznick, "An Approach to a Theory of Bureaucracy," *American Sociological Review* 8 (February, 1943).
 9. Robert Michels, "Authority," *Encyclopedia of the Social Sciences* (New York: Macmillan, 1931), pp. 319ff.; also Barnard, *op. cit.*, c. xii.
 10. For a presentation of this approach having a more general reference than the study of formal organizations, see Talcott Parsons, "The Present Position and Prospects of Systematic Theory in Sociology," in Georges Gurwitsch and Wilbert E. Moore (ed.), *Twentieth Century Sociology* (New York: The Philosophical Library, 1945).
 11. "Structure" refers to both the relationships within the system (formal plus informal patterns in organization) and the set of needs and modes of satisfaction which characterize the given type of empirical system. As the utilization of this type of analysis proceeds, the concept of "need" will require further clarification. In particular, the imputation of a "stable set of needs" to organizational systems must not function as a new instinct theory. At the same time, we cannot avoid using these inductions as to generic needs, for they help us to stake out our area of inquiry. The author is indebted to Robert K. Merton who has, in correspondence, raised some important objections to the use of the term "need" in this context.
 12. For "derived imperative" see Bronislaw Malinowski, *The Dynamics of Culture Change* (New Haven: Yale University Press, 1945), pp. 44ff. For the use of "need" in place of "inotive" see the same author's *A Scientific Theory of Culture* (Chapel Hill: University of North Carolina Press, 1944), pp. 89-90.
 13. They may also destroy those relationships, as noted above, but the need remains, generating one of the persistent dilemmas of leadership.
 14. See R. M. MacIver's discussion of the "dynamic assessment" which "brings the external world selectively into the subjective realm, conferring on it subjective significance for the ends of action," *Social Causation* (Boston: Ginn, 1942), chaps. 11, 12. The analysis of this assessment within the context of organized action yields the implicit knowledge which guides the choice among alternatives. See also Robert K. Merton, "The Unanticipated Consequences of Purposive Social Action," *American Sociological Review* 1 (December, 1936).
 15. This is not meant to deprecate the study of organizations as *economies* or formal systems. The latter represent an independent level, abstracted from organizational structures as cooperative or adaptive systems ("organisms").
 16. Barnard, *op. cit.*, pp. 158-159.
 17. It is perhaps useful to restrict the concept of co-optation to formal organizations, but in fact it probably reflects a process characteristic of all group leaderships. This has received some recognition in the analysis of class structure, wherein the ruling class is interpreted as protecting its own stability by absorbing new elements. Thus Michels made the point that "an aristocracy cannot maintain an enduring stability by sealing itself off hermetically." See Robert Michels, *Unschichtungen in den herrschenden Klassen nach dem Kriege* (Stuttgart: Kohlhammer, 1934), p. 39; also Gaetano Mosca, *The Ruling Class* (New York: McGraw-Hill, 1939), p. 413ff. The alliance or amalgamation of classes in the face of a common threat may be reflected in formal and informal cooperative responses among formal organizations sensitive to class pressures. In a forthcoming volume, *TV A and the Grass Roots*, the author has made extensive use of the concept of co-optation in analyzing some aspects of the organizational behavior of a government agency.