INSIDE BUREAUCRACY

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I. Introduction

It is ironic that bureaucracy is still primarily a term of scorn, even though bureaus are among the most important institutions in every nation in the world. Not only do bureaus provide employment for a very significant fraction of the world's population (probably over 18 per cent of the U.S. work force, for example), but also they make critical decisions which shape the economic, political, social, and even moral lives of nearly everyone on earth. Yet economists and political scientists have largely ignored bureaucratic decisionmaking in constructing their theories of how the world operates.\textsuperscript{1}

Beginning with Max Weber, sociologists have performed heroic deeds of analysis upon bureaus, but their approach has suffered from lack of any well-developed structure of decisionmaking theory.\textsuperscript{2} The recent proliferation of organization theory, which incorporates many decisionmaking concepts from economics, has begun to provide the framework for a more general approach to bureaucracy. However, such excellent works as March and Simon's \textit{Organizations} or Blau and Scott's \textit{Formal Organizations} have not yet focussed this new structure upon the operations of bureaus with sufficient precision to make accurate forecasts of bureau behavior possible.\textsuperscript{3}

In this paper, I shall attempt to present a theory of bureaucratic decisionmaking aimed at achieving such predictability. My theory is

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based upon the fundamental hypothesis that bureaucratic officials, like all other agents in society, are motivated by their own self interests at least part of the time. Therefore, this theory follows the tradition of economic thought from Adam Smith forward, and is consistent with recent contributions to political science made by such writers as Simmel, Truman, Schattschneider, Buchanan, Tullock, Riker and Simon.

Like every theory, mine consists of the following parts: (1) definition of terms, (2) a few central hypotheses, (3) an assumed environment, and (4) a series of propositions arrived at by logically applying the hypotheses to the environment. I shall describe these parts in turn.

II. Definitions

Since bureaus are a particular form of organization, the first step is to define an organization:

An organization is a system of consciously coordinated activities or forces of two or more persons which has been explicitly created to achieve specific ends.

An organization is a bureau if and only if it possesses the following four primary characteristics:

1. It is large; that is, the highest-ranking members know less than half of all the members personally.

2. A majority of its members are full-time workers who depend upon their employment in the organization for most of their incomes.

3. The initial hiring of personnel, their promotion within the organization, and their retention therein are at least theoretically based upon some type of assessment of the way in which they have performed or can be expected to perform their organizational roles, rather than upon either (a) ascribed characteristics (such as religion, race, or social class) or (b) periodic election by some outside constituency.
4. The major portion of its output is not directly or indirectly evaluated in any markets external to the organization by means of voluntary quid pro quo transactions.

Each of these characteristics contributes important elements to the particular nature of bureaus. Large size means that bureaus must develop relatively impersonal internal relations, and are faced with substantial administrative problems. Full-time employment means that bureau members are not dilettantes but are seriously committed to their jobs. It also implies that the bureau must compete for their services in the labor market. Personnel policies based upon role-performance mean bureau members are dependent upon their superiors for promotion, rather than upon some outside constituency. Such policies also imply that bureau members are motivated to shape their behavior so as to seek promotions because advancement is dependent upon their performance, not upon innate characteristics like sex, religion, or social caste. Non-market orientation means that bureaus are unable to use the objective monetary measure of profitability to evaluate the specific activities they undertake. It also means that even very large profit-making organizations (such as General Motors) are not bureaus, though parts of such organizations (such as the public relations department of Chevrolet) can be bureaus if their specific outputs cannot be evaluated in a market. Some more typical examples of bureaus covered by the theory are the Roman Catholic Church (except for the Pope, who is elected), the University of California, the Soviet central planning agency, the U.S. State Department, the New York Port Authority, and the Chinese Communist army.

Bureaucrats are not simply people who work for bureaus. Rather, I define a bureaucrat as any person who (1) works for a large organization; (2) receives a money income from that organization which constitutes a major part of his total income; (3) is hired, promoted, and retained primarily on the basis of his role performance; and (4) produces outputs which cannot be evaluated on a market. This definition implies that a man can be a bureaucrat even if he works
for a non-bureaucratic organization (such as Sears, Roebuck, and Company) as long as his own output cannot be evaluated on a market (even though the value of his inputs can be so evaluated). In my analysis, the term "bureaucrat" is in no way derogatory, but because it is so universally regarded as an insult, I will use the more neutral term "official" to describe the type of person defined above.

III. Central Hypotheses

The theory is based upon the following major hypotheses:

1. Officials (and all other agents in the theory) seek to attain their goals rationally; that is, in the most efficient manner possible, given their limited capacities and the cost of information. This means that all agents in the theory are utility maximizers. In practical terms, this implies that whenever the cost of attaining any given goal rises in terms of time, effort, or money, they seek to attain less of that goal, ceteris paribus; whereas whenever the cost of attaining a goal falls, they seek to attain more of it.

2. Officials in general have a complex set of goals including the following elements: power, income, prestige, security, convenience, loyalty (to an idea, an institution, or the nation), pride in excellent work, and desire to serve the public interest (as the individual official conceives of it). However, different types of officials focus on smaller sets of these goals. In particular:

   a. Purely self-interested officials are motivated entirely by goals which benefit themselves rather than their bureaus or society at large. There are two types of such officials:

      1) Climbers seek to maximize their own power, income, and prestige. This can be done either by winning promotion to higher rank, increasing the status of their existing positions through aggrandizement, or "jumping" to new and better jobs elsewhere.
2) 

Conservers seek to maximize their own security and convenience. Since "security" is defined as maintenance of one's present level of power income, and prestige, conservers favor the status quo. They fear change because it might reduce their present prerogatives; hence they oppose innovations and change in general.

b. Mixed-motive officials have goals which combine self-interest and altruistic loyalty to larger values. The main difference between the three types of mixed-motive officials is the breadth of the larger values to which they are loyal. Thus:

1) Zealots are loyal to relatively narrow policies or concepts, such as the development of military airplanes by Billy Mitchell. They seek power both for its own sake and so they can effectuate the sacred policies to which they are loyal.

2) Advocates are loyal to a broader set of policies or to a broader organization (such as naval warfare or Harvard University). They are impartial in judging the merits of various proposals within the organization to which they are loyal, but highly partisan in supporting that organization in conflicts with "outsiders." The breadth of advocacy can vary widely, from a small section of a bureau (such as the economics department of a university) to a very broad bureau (such as the entire Defense Department).

3) Statesmen are loyal to the nation or society as a whole -- hence they resemble the "ideal" officials of public administration textbooks. However, like advocates and zealots, they seek power and prestige for personal as well as altruistic reasons, since they enjoy having an influence upon important policies.
IV. The Environment

The world in which the officials in my theory operate is as realistic as I can make it. In this respect, it differs sharply from the "perfectly informed" world of traditional economic theory, and more closely resembles the environments assumed by most political and sociological theorists. In particular, the following conditions prevail in this environment:

1. Information is costly because it takes time, effort, and sometimes money to obtain data and comprehend their meaning.

2. Decisionmakers have only limited capabilities regarding the amount of time they can spend making decisions, the number of issues they can consider simultaneously, and the amount of data they can absorb regarding any one problem.

3. Although some uncertainty can be eliminated by acquiring information, an important degree of ineradicable uncertainty is usually involved in making decisions.

Insofar as the basic institutional setting of this theoretical world is concerned, it can be either democratic, totalitarian, monarchial, traditionalist, or have any other form in which bureaus are likely to be found. As pointed out by Max Weber, bureaus probably require a money economy rather than a barter economy, but I place no other particular constraints on the type of society to which the theory applies. It is true that many of my examples are drawn from contemporary U.S. society, but that betrays only my own limitations, not those of the theory itself.

V. The Inherent Hierarchical Structure of Bureaus

In Max Weber's famous essay on bureaucracy, he set forth several traits which he regarded as fundamental to bureaus. These included hierarchical organization, extensive use of rules, impersonality of procedure, and the employment of specialists on a career basis. There are two reasons why I have not included any of these traits among the primary characteristics of bureaus as we define them. First,
insofar as Weber's traits are typical of bureaus, they can be shown to be the logical results of the four primary traits included in my definition; hence I regard them as secondary characteristics. Second, bureaus also contain forces which inhibit the full development of some of Weber's traits -- especially impersonality of procedure.

Moreover, Weber completely neglected an important aspect of all organizations which has since been emphasized by many sociologists: the informal structures of authority and communication inevitable in any co-operating group of human beings. In my analysis I attempt to integrate these informal mechanisms with Weber's traits by demonstrating how various internal structures in all bureaus inherently result from the four primary characteristics included in our definition. However, in this paper, I will confine myself to showing why hierarchical structures are necessary attributes of all bureaus.

Bureaus must have hierarchical authority structures for two reasons. First, such structures are necessary to settle the conflicts which inevitably arise in any large organization undertaking co-ordinated activities. These conflicts arise from (1) differences in the goals of bureau members, which cause conflicts of interest even if all parties perceive reality identically; (2) differences among bureau members regarding their modes of perceiving reality or the stock of information available to them, which cause the development of inconsistent behavior patterns even if all members have the same basic goals. The latter type of conflict is especially likely in an organization whose members have varying technical specialties, as is true of most bureaus. Such conflicts can concern either behavior patterns or resource-allocation or both. In order to achieve at least the minimal co-ordination of its diverse parts necessary for effective action, a bureau must have some mechanism for settling these conflicts by enforcing a certain level of consistency upon the behavior of its members. Equal-authority mechanisms for making such choices, such as majority voting, are terribly inefficient for arriving at consistent day-to-day behavior patterns. Therefore, the power of making conflict-resolving choices must be delegated to a few members
of the organization. These members are thereby vested with the "superior" authority implied by the concept of hierarchy. As the organization grows larger and larger, even more superior layers of authority must be created to settle conflicts among the lower-level conflict-settlers themselves. Hence a multi-level hierarchy of authority is implicit in any large co-ordinated organization.

The second cause of hierarchical organization is the need for efficient communications. Even a minimal degree of co-ordination requires that each bureau member have some idea of what other members are doing that might affect the efficacy of his own behavior. However, not everyone's behavior is relevant to everyone else in the organization; hence universal intra-communication would be wasteful. Moreover, the message-handling capacity of each member is quite limited; therefore it is impossible to achieve co-ordination in a large organization by having everyone directly inform everyone else about what he himself is doing. Instead, a system of communications intermediaries must be established. Each intermediary receives messages directly from a certain group of bureau members, screens them to determine which messages are relevant to which persons, and relays them to those persons only. This immensely reduces total message traffic by saving each member from having to waste time (1) sending messages to others for whom the messages are irrelevant, and (2) receiving from others messages which are irrelevant to him. When the organization grows large enough, these intermediaries also find themselves over-loaded with message traffic; hence they need to establish another level of intermediaries above them to perform a further traffic-reducing function. The result is a hierarchy of communications nodes. In most cases, this hierarchy is closely integrated with the hierarchy of authority, since possession of adequate information is an important aspect of authority.

Such a communications hierarchy implies very different types of knowledge at different levels. Since the total information capacity of each official is limited, the more different parts of the bureau he is informed about, the less detailed information he possesses
concerning each part on the average. Therefore, officials relatively low in the communications hierarchy are informed about only a few parts of the whole bureau, but they know a lot about each of those parts. In contrast, top-level officials know a little bit about what each of the bureau's many sections are doing. However, no one ever knows everything about what is going on in the bureau.

The above reasoning indicates that all bureaus must have some form of hierarchical structure to function with even minimal co-ordination. However, the hierarchy can take many forms. Two of the most significant are "tall" hierarchies (with narrow spans of control but many levels) and "flat" hierarchies (with wide spans of control and few levels). The former are appropriate in organizations where a large number of conflicts are likely to occur, since they have a high ratio of conflict-settlers to total members. Such organizations include those with extremely complex or hard-to-define functions, highly uncertain environments, very specialized staffs, high rates of internal technical innovation, or relatively heterogeneous memberships. In contrast, "flat" hierarchies are appropriate for organizations where fewer conflicts are likely, since they have a much lower proportion of conflict-settlers to total members. Hence "flat" hierarchies are suitable for bureaus with relatively simple or clearly-defined functions, stable environments, relatively unspecialized staffs, stable internal techniques, and homogeneous memberships. Because of their wider spans of control and few conflict-settlers, "flat" hierarchies are generally associated with decentralization; whereas "tall" hierarchies are typical of more highly centralized bureaus.

VI. Problems of Communications and Control and in Bureau Hierarchies

A. The Message-Distortion Problem

In theory, the complex hierarchies of modern bureaus function as data-gathering systems designed to supply top-level officials with only the essential information they need to make vital policy choices. To illustrate this process, let us imagine a bureau with six hierarchical levels, from the A-level at the top to the F-level at the bottom.
Moreover, let us assume a span of control of four officials at each level. Hence, if there is one top man on the A-level, he will have four subordinates at the B-level, who will have 16 men under them at the C-level, etc., down to the F-level, where there will be 1,024 officials. These numerous F-level officials are the "troops in the field" who grapple directly with reality in all its complexity. Each F-level official selects a few of the most salient facts from the infinite number facing him, and reports these facts to his E-level superior. That superior receives reports from four different subordinates, and he in turn is one of four subordinates reporting to his own D-level superior. Hence the E-level official is compelled to screen the information reported to him before relaying it to his own superior so as to keep that superior from being inundated with data. In fact, this screening-and-reduction function is a vital part of each official's task, as our previous analysis of the communications hierarchy showed. In theory, each official screens out the chaff and relays only the best grain to his superiors. Since such winnowing occurs at every level, the top-most officials on the B- and A-levels receive only the quintessence of everything going on below them – perhaps condensed to a few pages on each issue. They cannot absorb more than a limited amount of data on each issue if they are to remain informed about the entire range of activities performed by the bureau, which they must do to perform their high-level co-ordinating functions.

As Gordon Tullock has pointed out in his brilliant analysis of bureaus, this communications process is extremely vulnerable to the proclivity of each official to screen information so as to benefit himself, as well as to serve the formal functions of his bureau. All types of officials are tempted to distort the information they pass on in the following ways:

1. By minimizing or suppressing information unfavorable to their to their own performances or abilities, and exaggerating that favorable to themselves. Thus officials tend to submit optimistic reports about their own capabilities or those of the subordinates under them, often omitting significant qualifying data.
2. By de-emphasizing information likely to displease their superiors, and exaggerating that likely to make their superiors happy. This is especially likely among climbers, who seek to win promotion by pleasing their superiors. Examples are failing to tell superiors about the inadequacy of their pet ideas, withholding or minimizing upsetting or adverse information in general, and de-emphasizing information requiring changes in the superiors' favorite habits. Advocates and zealots are less likely to engage in this type of distortion, since they are willing to antagonize their superiors if doing so will advance the organizations or ideas to which they are loyal, even if it hurts their own chances of promotion.

3. By selecting the information they pass upwards so that it will indicate that present policies should be continued (in the case of conservers), or that more resources should be devoted to their own bureau sections (in the case of climbers, advocates, and zealots), or that present policies of the bureau are seriously inadequate in specific ways (in the case of zealots and strong advocates supporting new functions). In all cases, officials are motivated to suppress information indicating that their own functions or bureau sections should be diminished in importance or given fewer resources.

At first glance, it might seem that possibilities of serious distortions arising in this manner would be checked by two factors: (1) one's superiors might receive more accurate reports from other sources, thereby exposing the duplicity of any serious distortions, and (2) each official realizes he is receiving distorted information from his subordinates; and therefore he "counter-biases" it himself, thus removing the effects of the distortion.

However, these checks to distortion can be extremely weak in large bureaus whose functions involve great complexity and uncertainty. Since bureaus have no objective measure of success similar to the profits of a business firm, it may be extremely difficult for one's
superiors to distinguish between accurate reporting and deliberate distortions. The Soviet Minister of Defense has no way of knowing with certainty just how much "defense" he buys with a given appropriation for more missiles, since "defense" is an immeasurable concept, and he has a limited capacity to grasp the extremely complicated technical questions of reliability, accuracy, retaliation, and deterrence involved. Under such circumstances, officials can engage in considerable distortions without too great a risk of being detected.

Similarly, the reduction of distortion caused by the use of counter-biases by superiors is weakened whenever superiors are motivated to increase the distortions of their subordinates instead of eliminating them. For example, if an E-level official exaggerates his own need for more funds, his D-level superior can often profit by increasing this exaggeration so as to develop more effective bargaining power with his own boss on the C-level. Logical motivations for such cumulative distortion are present in a disconcertingly large number of cases, especially where appropriations of resources are concerned.

The net results of such distortion can be dramatically illustrated with an example invented by Gordon Tullock. Assume that each official who screens information imparts a 10 per cent distortion to it; that is, his report contains only 90 per cent of the data it would contain if he had exactly the same values and interests as the superior to whom he is reporting, and 10 per cent extraneous and misleading data. Thus, when the F-level official reports to his E-level superior, the report is only 90 per cent accurate. When the E-level official reports to his D-level superior, he passes on 90 per cent of the 90 per cent given to him, or 81 per cent of the truth. Of such cumulative distortion continues up the hierarchy, then official A at the top will receive a report which is not only greatly condensed from its original version (which is an advantage), but also is only 59 per cent accurate. The other 41 per cent of what is told to him represents various distortions built into the report to serve the individual interests of the officials below him. In reality, a
distortion rate of only 10 per cent is probably exceptionally low; hence it is quite possible that half or more of the information received by top-level officials from the hierarchy under them represents errors or deliberate distortions. This is particularly likely if the reports necessarily deal primarily with qualitative or opinion-based information rather than quantitative data.

Such distortion is likely to occur in all large hierarchical organizations, not just bureaus. However, profit-making firms have an objective summary measure of performance -- profits -- which can be used as a basis for evaluating the individual outputs of a great many (but not all) employees through cost-accounting techniques. Bureaus have no such ultimate measure of success. Nevertheless, top bureau officials can limit the effects of distortion by means of the following devices:

1. Objective measurements of performance that function as surrogates for true evaluations of performance. Examples are the number of letters typed by a secretary per day, and the average CEP of a bombing squadron.

2. Redundancies consisting of multiple reports on the same events, some of which come through channels outside the bureau. This explains why Presidents read several daily newspapers and talk to many old friends. Thus, what often appears to be a "wasteful" duplication of effort is really an attempt to increase efficiency by obtaining more accurate information.

3. By-pass mechanisms aimed at "eliminating the middle-men" in the communications process and instead communicating directly with relatively low-level officials who are on the scene of action. Personal visits, friendships with low-ranking officials, direct confrontations with such officials, and use of inspection teams are all by-pass devices.

4. Use of "flat" hierarchical structures so as to reduce the number of levels between men in the field and those on the top
of the bureau, at least in those areas of action where fast and accurate reporting is essential.

B. The Directive-Distortion Problem

The process of transmitting orders and directives downwards in a bureau hierarchy is symmetrically opposite to the process of transmitting information upwards. When official A formulates an objective for the entire bureau, he necessarily does so in general terms, since he has neither the time nor the information to work out its detailed implications for the actions of all his subordinates. As the directive is transmitted downwards, officials at each level make it more specific and expand it into a more detailed program of behavior. They must of necessity exercise a certain amount of discretion in choosing among possible ways to do this. Such discretionary expansion of downward-flowing directives is exactly analogous to the discretionary contraction of upward-flowing information described earlier. But whenever officials can exercise discretion, they are likely to use it to benefit themselves as well as to discharge their formal functions. Hence a distortion of downward-flowing directives occurs which is the counterpart of the message-distortion described previously. Officials at each level below A choose a particular method of carrying out each of A's directives which differs from the method which A himself would have chosen if he were in their places, since their personal goals are not the same as A's. As a result, A's original intentions become more and more distorted as his order filters down through the hierarchy. In fact, the order becomes transformed so as to produce more and more behavior which has nothing to do with A's original desires, but rather reflects the goals of officials on all the levels below A.

Again we can use Tullock's model to illustrate the magnitude of this distortion. If each subordinate dilutes the directives he receives by 10 per cent, then his behavior will be 90 per cent just what his superior would like and 10 per cent different from what his superior would like. Assuming such distortion is cumulative down the hierarchy, the officials at the F-level will receive orders
which are 66 per cent composed of what A originally intended, but they will execute only 90 per cent of these orders. Thus the bureau's "field men" will achieve behavior which is 59 per cent composed of what A intended and 41 per cent composed of actions unrelated to his intentions. If the distortion rate is expanded to allow for errors and the generally lower level of ability at the bottom levels of the hierarchy, then common sense indicates it may greatly exceed 10 per cent. As a result, well over half of what people in the bureau are doing may have nothing whatever to do with what its leaders want to accomplish, or what they have ordered to be carried out. Even under the most sanguine interpretation, a large fraction of the behavior of bureau members is likely to be completely irrelevant to its leaders' intentions.

It is true that the leaders can develop some control devices to reduce this "leakage of authority." Among these are the following:

1. Objective performance standards for specific jobs to enforce productive behavior patterns on persons holding those jobs.

2. Reduction of the diversity of goals among bureau members by selective recruitment, intensive training, and development of specific bureaucratic ideologies. If relative homogeneity of goals exists among bureau members, then discretion is likely to result in narrower deviation from the goals of the top members than if there is great heterogeneity of goals.

3. Use of all the anti-distortion devices described in my analysis of communications so as to obtain accurate information about how the behavior of officials deviates from what is desirable. However, this is not very effective, since it is usually difficult for the top leaders to know what detailed behavior at lower levels would best achieve their own goals.

4. Creation of competition among various segments of the bureau by assigning them overlapping responsibilities. Such competition will stimulate the rivals to think of new and better ways of achieving the top leaders' goals in order to wring more
resources from those leaders. Also, the rivals will develop
criticisms of each other's performances, thereby informing the
top leaders of any deviations from their goals which exist.
Moreover, fear of such criticism will reduce deviations right
from the start. These results illustrate Downs's Third Law:
"Unrestrained conflict shifts power upward." If the rivals can
agree on a joint strategy, then the top leaders will be given no
choices, only faits accomplis. But if their rivalry remains
unrestrained by collusion, their conflict will constantly throw
alternative choices up to the top leaders -- thereby preserving
power of the latter.

Such competition is analogous to redundancy in communications:
by creating apparently "wasteful" duplication of effort, the
leaders reduce the amount of distortion in the system (from their
viewpoint), thereby augmenting their own control and efficiency.

In spite of these tactics, a significant proportion of all the
activity in any bureau consists of behavior which does not directly
accomplish either its formal purposes or the ends of its leaders. To
some extent, this extraneous behavior is the price which the leaders
must pay in order to keep a large organization going. All human
organizations must at least partly accommodate the informal and per-
sonal interests of their members, as well as attempting to attain their
formal purposes, or they cannot maintain any membership at all. Never-
theless, there are undoubtedly many viable degrees of such accommo-
dation; hence many existing organizations could probably increase the
proportion of their efforts directed at their formal goals without
seriously alienating their members.

From the above analysis we can draw the following significant
conclusions:

1. A great deal of the behavior in any large organization cannot
be controlled by its leaders, and will in fact conflict with
their objectives. They will normally not even know what this
behavior consists of. Although they can control any small segment
of the bureau quite precisely if they focus their attention upon it, they then lose further control over other segments -- hence there is no way for them to exercise complete control over all segments simultaneously.

a. This means there is no perfect way to organize any bureau. It is true that certain forms of organization are more appropriate for achieving some functions than others. Nevertheless, imperfect control is an inevitable result of large size, and reorganizing a bureau usually tends to rearrange the areas of imperfect control rather than significantly reducing them.

b. The leaders of almost every bureau are afraid of being investigated by outsiders, since investigation is almost sure to reveal some type of behavior which conflicts with the bureau's formal purposes. This fear of investigation tends to restrain bureaus from engaging in all-out conflict with each other, which is one of the reasons that bureaus (unlike business firms) rarely die. Moreover, the fear of investigation also makes bureau leaders value personal loyalty as a trait among their immediate subordinates, in contradiction to Max Weber's belief that internal relationships within bureaus are mainly impersonal.

2. The objective of "eliminating all waste" from bureaus is both absurd and undesirable. It is absurd because no human organization ever devotes anywhere near 100 per cent of its efforts to achieving its formal purposes directly. Hence a certain amount of "waste" is inevitable. Moreover, certain types of duplication of effort which superficially appear "wasteful" (such as redundant communications channels and overlapping assignments of functions) are actually efficient means of limiting distortions in the organization's behavior. These conclusions do not mean that every bureau is perfect and all present behavior is necessary. However, they imply that
distinguishing "waste" from "non-waste" is much more difficult and involves far greater subtleties than is usually admitted by the critics of bureaucracy.

VII. The Dynamics of Bureaus: Their Life Cycle

A. How Bureaus Come into Being

Bureaus are not born, they are made. Their creators are usually zealots who are enthused about some particular idea and go around seeking sufficient support for that idea to "get it off the ground." In all modern societies (as opposed to tradition-oriented ones), zealots promoting new ideas tend to appear spontaneously in every group or organization, just as hydrogen molecules are supposed to appear spontaneously in space in a well-known theory of cosmological creation. However, not every zealot succeeds in creating a new bureau (or other organization); success comes only if his ideas find a receptive environment because they serve a useful function for a significant number of persons, or a few persons with significant resources. Thus favorable exogenous conditions are the sine qua non of all new bureaus. Nevertheless, zealots normally perform the equally crucial role of suggesting new ideas and expending the energy necessary to gather support for them.

Bureaus are normally created by zealots in one of the following four ways:

1. Routinization of charisma, as suggested by Max Weber. In this case the founding zealots are the original charismatic leader and his closest followers, who transform his initially personal group into an organized bureau.

2. Splitting off from an established bureau. In this case, the zealots are initially members of the established bureau who succeed in founding a separate section within that bureau to develop a new idea or process. Eventually this sub-section gains sufficient external support for itself to become an autonomous bureau.
3. Entrepreneurial development of a new idea by a group of zealots who are initially outside of any established bureau. They mustering enough support for their idea to create a bureau designed to carry it out.

4. Creation ex nihilo by powerful members of other social agencies who discern a need for an organization to accomplish certain functions. In this case, the bureau is not formed around an existing group of zealots. However, it usually behaves as though it were because (1) zealots interested in its field are attracted to it and (2) the men assigned to run it discover they will be most successful if they act like zealots themselves.

Once the bureau is born, it normally undergoes a period of relatively rapid growth while it is seeking to win sufficient external support to guarantee its survival. During this period, its leaders concentrate their efforts on performing its functions as efficiently as possible so that they can demonstrate to their clientele that they are worth supporting. In other words, they are strongly oriented towards accomplishing the formal goals of the bureau. Moreover, they are not hampered in doing so by any large accretion of rules, regulations, and traditions, since the bureau is too young to have developed such impediments.

B. The Effects of Aging upon Bureau Behavior

Once a bureau has succeeded in establishing (1) a sufficient external base of support to guarantee it will keep receiving enough resources to survive and (2) a set of relatively routinized relationships with those clients and suppliers who provide this external support, then it has passed its initial survival threshold. From then on, age tends to have the following impacts upon it:13

1. The bureau learns to perform its assigned functions more efficiently. This in effect creates additional capacity without any additional resources. The officials in the bureau will employ this added capacity to increase their output of services,
aggrandize their power by acquiring new functions, or add to organizational slack by making life easier for themselves.

2. The bureau develops more and more extensive rules and regulations. As time passes, it experiences a wider variety of situations. It attempts to "organizationally remember" how best to deal with those situations by adding new rules to cope with them.

3. The goals of the bureau's top officials tend to shift towards maintaining and expanding their organization per se, and away from achieving the original formal purposes of the bureau. This occurs partly because larger size and the proliferation of rules inevitably shift more of their attention to administrative matters. Also, they develop a greater interest in maintaining the bureau the more years of effort they have invested in it. As a result, the older the bureau, the more willing are its leaders to alter its formal goals in order to keep it "in business." Thus longevity creates goal-flexibility.

4. The relative importance of various types of officials in the bureau tends to change. The zealots who founded it decline in power and influence because zealots are usually poor administrators, since they are primarily concerned with substantive issues and are too biased towards their sacred policies to settle internal conflicts impartially. Conservers tend to gain added power and prestige because they are good administrators and are more flexible about changing the organization's goals. However, if the bureau faces a rapidly shifting environment, its climbers and advocates tend to come to the fore, since they are far more innovation-oriented than conservers.

5. The older -- and larger -- a bureau becomes, the more it becomes subject to inertia. The main cause of inertia in any large organization is the enormous "sunk cost" represented by its established rules, habits, procedures, and inter-personal networks of communication and authority. Large organizations
quite rationally tend to reject new ways of doing things because such innovations are justifiable only if their returns are large enough to (1) equal or exceed the pay-off from present procedures and (2) exceed the costs of altering existing behavior patterns. Since the latter costs may be very large indeed, any innovation must be exceedingly profitable before it is likely to be adopted. This means that longevity causes bureaus to become less flexible regarding procedures as well as more flexible regarding goals.

6. The bureau's functions tend to expand in scope. If the relative importance of its initial social function rises and falls, it tends to reach out for new functions so as to maintain its power, income, and prestige. This process of attaining security through diversification gradually broadens the scope of its activities, though it may take decades for this tendency to reveal itself.

These changes mean that a "gap" normally appears between the aspirations of the bureau's leaders and the actual performance of its rank and file members. Whereas the leaders become ever more willing to shift goals to gain more resources, they have ever greater difficulty getting their subordinates to adopt new behavior patterns. Thus the top officials in an older bureau are just as much prisoners of established routine and inertia as are the external clients who must deal with it.

C. Accelerator and Decelerator Effects

If a bureau's social function suddenly increases in relative importance, the bureau is generally given a big dose of additional resources by society and urged to expand. Such exogenously-caused periods of rapid growth have important repercussions on the internal structure of the bureau. As it expands, it creates many new opportunities for promotion, and it is forced to constantly revise its established organization because of the uncertainty in day-to-day operations caused by fast growth. These conditions tend to attract climbers and
and to repel conservers. As a result, the proportion of climbers in the bureau rises -- especially in high positions, since climbers move upwards quickly -- whereas the proportion of conservers falls. Because climbers are highly innovation-oriented, this shift in the character of the bureau's personnel tends to make the bureau more adaptable to change, and more ingenious at finding new ways to do things and new functions to perform. Hence the rising proportion of climbers initially caused by fast growth tends to accelerate that rate of growth. This in turn opens up even more opportunities for promotion, which attracts even more climbers, which makes the bureau even more innovation-minded, which speeds up its growth even faster, etc. Eventually, this growth acceleration effect tends to be choked off because (1) the bureau's expansion rouses more and more antagonism from other bureaus whose functions it is "invading;" (2) its growth tends to out-pace the initial increase in the relative importance of its social function, so society stops giving it more resources; (3) it fails to maintain the same average level of talent as it grows larger, so it cannot keep producing the high-quality results that initially helped it win more resources; and (4) its most talented members have to devote more and more time to administration, which also reduces the caliber of its socially-visible performances.

An opposite set of forces tends to come into play when a bureau experiences a sudden decline in the relative importance of its social functions. In this case, society reduces the resources available to it; hence it must shrink, or at least grow more slowly than the average bureau. This causes promotional opportunities within the bureau to become less-than-average. Hence the climbers therein either depart for greener pastures or become transformed into conservers. As a result, the proportion of climbers in the bureau falls, and the proportion of conservers rises. This makes the bureau less prone to innovate or seek new functions, which further aggravates its decline in significance and power. Hence a "vicious circle" of deceleration occurs which is just the opposite of the accelerator described above. However, a set of countervailing forces tends to
brake this decelerator before the bureau disappears entirely, just as an analogous set keeps the growth accelerator from creating indefinitely-large bureaus.

The accelerator and decelerator principles indicate that changes in the quantitative dimensions of a bureau also cause significant changes in its quality.

D. Why Bureaus Seek Expansion

Bureaus are traditionally accused of having insatiable appetites for growth unrelated to the true importance of their functions -- as in Parkinson's famous First Law. 14 However, most of the forces that impel bureaus to expand are equally applicable to all forms of organizations, private or public. The most significant are the following: 15

1. A rapidly-growing organization can attract more capable personnel, and more easily retain its most competent existing members, than can one which is either expanding very slowly, stagnating, or shrinking. This is true because of the way the accelerator and decelerator principles operate, as explained above. Hence the desire to attract and retain "bright young men" -- and thereby remain competitive -- is a key factor in explaining why businessmen so anxiously pursue growth too.

2. The expansion of any organization normally provides its leaders with increased power, income, and prestige; hence they encourage its growth (unless they are conservers).

3. Growth tends to reduce internal conflicts in an organization by allowing some (or all) of its members to increase their personal status without causing others to suffer compensatory losses in status. Therefore, organizational leaders encourage expansion so as to benefit morale and minimize internal conflicts over resources.

4. Increasing the size of an organization may improve the quality of its performance (per unit of output) and its chances for survival; hence both loyalty and self-interest can cause officials to promote organizational growth. Some significant economies of
scale are greater specialization, ability to purchase in larger 
quantities, reduction of errors associated with stochastic variables 
by increasing the sample size, better chance of survival, greater 
autonomy and power in relation to external agents of any given 
size, greater ability to impose some stability on the external 
environment, and improved research and development capabilities.

5. Because there is no inherent quid pro quo involved in bureau 
activity enabling officials to weigh the marginal return from 
further spending against its marginal cost, the incentive structure 
facing most officials (especially those in governments) provides 
much greater rewards for increasing expenditures than for reducing 
them. Specifically:

a. Most government officials are responsible for providing 
services by spending money, but not for raising the money (except 
by getting appropriations from some central fund-raising agency). 
Since the officials are rewarded for providing better services, 
and since all services could be improved by spending more money, 
they are encouraged to expand their bureaus through greater 
spending.  

b. The recipients of bureau services generally obtain them for 
less than they cost; hence they naturally pressure the govern-
ment to give them more such "semi-free" goods. In contrast, 
few taxpayers are motivated to search out and oppose bureaus 
which absorb their taxes but do not benefit them. Such action 
would not pay them, since the information costs of the search 
would probably exceed the marginal tax-reductions which the 
individual himself would get by reducing "excessive" spending. 
As a result, the government's central appropriations agency 
receives asymmetrical pressure favoring increased spending by 
particular agencies. True, it also receives general pressure 
for greater economy, but such pressure is not normally accompanied 
by specific suggestions about which services to reduce.
c. The central appropriations agency must usually rely heavily upon each bureau and its major clients to determine whether its services are really worthwhile, because few others are informed about the bureau's operations. But these sources are biased in favor of expansion for all the reasons cited above.

d. Government bureaus ultimately obtain resources by means of coercion rather than voluntary transactions. In totalitarian societies, this means bureaus are not checked from over-expansion by the need to provide only services which are worth their costs to the bureau's beneficiaries, or to anyone else. However, in democratic societies, politicians must win periodic approval for the total "bundle" of bureau services and taxes they offer the voters. Nevertheless, the tenuous link between such general approval and specific bureau spending programs means that individual bureaus are only weakly restrained from seeking expansion by this arrangement. Whether or not all government bureaus considered as a whole can evade this limitation is a difficult question which I am not yet prepared to answer. 18

These results of the absence of any voluntary quid pro quo in bureau transactions comprise a force unique to bureaus -- unlike the other expansionary pressures described above, which are also felt by all other large organizations. Moreover, these unique factors do not really constitute a pressure to expand so much as the absence of certain limitations on expansion which check the growth of non-bureaucratic organizations -- especially those which operate in markets.

VIII. Practical Applications of the Theory

My theory of bureaucratic decisionmaking has two major purposes:

(1) to enable us to better understand the operation of bureaus, and
(2) to enable us to make more accurate predictions about bureau behavior.

However, my exposition up to now has concentrated on the first of these goals. Hence it may not appear that the theory leads to any better
predictions than its forerunners, which I previously criticized for their practical inapplicability.

Nevertheless, I believe that this theory has been designed so that it can be used to make practical predictions about the likely behavior of real-world bureaus. (Whether the predictions will come true is another matter which has yet to be determined!) The theory generates a great many specific propositions linking certain elements of the internal structure of bureaus with certain aspects of their functions and their external environments. The internal elements and aspects of bureau functions involved are as follows:

**Internal Elements**

1. The communications system.
2. The information-gathering system.
3. The distribution of authority, both formal and informal.
4. The system of allocating resources.
5. The process of defining the bureau's purposes and functions.
6. Methods of innovating and attitudes towards innovation.
7. Internal separation of functions.
8. Its stability in terms of its (a) size, (b) technological methods, and (c) social functions.
9. Methods of interacting with the external environment.
10. The mixture of types of officials in the bureau, and the degree of dominance by any one type.

**Aspects of Bureau Functions**

1. The clarity with which its functions can be defined.
2. The ease with which results of bureau actions can be perceived and their effectiveness evaluated.
3. The stability of the bureau's internal technological environment over time.
4. The stability of the bureau's external environment over time.
5. The operational interdependence of its various functions.
6. The complexity of its functions.
7. The scope of its functions (i.e., the breadth of activities they encompass).
8. The power setting of the bureau in its environment (i.e., its institutional surroundings, including its relations with any super-ordinate agencies, rivals, clients, suppliers, regulatees, and beneficiaries).
By means of the relationships among these entities contained in my theory's propositions, the practical analyst can either (1) use the internal structural elements of a bureau to forecast its external actions, or (2) use its external environment and the nature of its functions to forecast its likely internal structure and behavior, or (3) do some combination of both.

It has not been possible in a paper of this length to set forth all of the propositions contained in the theory, since it covers many subjects not mentioned herein. However, enough ideas have been stated, to illustrate that my very concrete motivational assumptions (such as the assumption that climbers maximize their power, income, and prestige) lead to much more specific behavioral propositions than most organization theories. Such theories usually assume that each individual maximizes his utility in general, but they do not define the contents of utility functions concretely.

I realize that I have had to pay a price for my concreteness by using "ideal types" which may appear too arbitrary and artificial to resemble any real-world officials very closely. Nevertheless, I believe that organization theory must abandon its presently excessive generality if it wishes to produce testable propositions which are helpful to men trying to grapple with real-world organizations. On the other hand, I do not believe that organization theorists should design a unique set of propositions to fit every individual organization, as I fear some recent analysts have done. We must find the happy medium between universal abstractions and biographical minutiae. I hope that the theory outlined herein represents a step in this direction concerning those vital but over-maligned pillars of society, bureaus and bureaucrats.
FOOTNOTES

1. There are some significant exceptions to this generalization, such as Herbert Simon, Duncan Black, James March, Gordon Tullock, William J. Gore, Robert Presthus, C. Northcote Parkinson, and the contributors to Bureaucracy and Political Development, edited by Joseph La Palombara (Princeton University Press, 1963).


3. Ibid.

4. I have deliberately avoided using the word "model" in this paper, but these elements could also be considered to be the essential ingredients of a model, since the words "theory" and "model" are almost synonymous.


8. Ibid.


10. Tullock, op. cit.
11. An excellent discussion of this idea is presented in Alain Enthoven and Henry Rowen, "Defense Planning and Organization," RAND Paper P-1640 (Santa Monica, 1959).


15. The concept of seeking growth to improve the organization's performance (point number 4) was taken from William H. Starbuck, op. cit.

16. This is the central concept in the theory of bureaucracy advanced by Ludvig von Mises in Bureaucracy (New Haven: Yale University Press, 1962).

17. The government also receives other asymmetrical pressures which have the opposite impact, since those opposing certain types of expenditures are stronger than those favoring them. For a discussion of this topic, see Anthony Downs, "Why the Government Budget Is Too Small in a Democracy," World Politics, Vol. 12 (1960). 541-563.

18. Ibid.

19. For example, the excellent analysis in Richard M. Cyert and James G. March, A Behavioral Theory of the Firm (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963). Although this work does contain some highly commendable general theory, it also presents a particular simulation applicable to a department store which, in my opinion, verges on analytical biography.