### **Queues, Priorities, and Social Process\***

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Because the decision to perform one task before or after another presupposes an assignment of priorities, the doing of work may be assimilated to the administration of different kinds of queues. The factor of choice in human endeavor thus carries with it the problem of time and its allocation. One important implication to be drawn from this premise is that social organization is itself a network of interlocking queues. Problems related to the time-dependency and integration of this network are discussed in the first part of the essay. In the second part, an attempt is made to show that what makes the queue itself morally significant and psychologically demanding is that it is a way of organizing obligations; it is the tangible manifestation of the "indebtedness" of the person who serves it. This underlying moral factor is found to be one of the most important preconditions of the integration of social systems.

I had always had two baskets in New York. One said IN, and the other OUT. At intervals a distribution boy would sneak into the room, deposit something in IN, remove the contents of OUT. Here, with only one basket my problem was to decide whether it was IN or OUT, a decision that a person of some character could have made promptly and reasonably but that I fooled around with for days-tentative, hesitant, trying first one idea then another, first a day when it would be IN, then a day when it would be OUT, then, somewhat desperately, trying to combine the best features of both and using it as a catch-all for migratory papers no matter which way they were headed. This last was disasterous. I found a supposedly outgoing letter buried for a week under some broadsides from the local movie house. The basket is now IN. I discovered by test that fully ninety percent of whatever was on my desk at any given moment were IN things. Only ten percent were OUT things-almost too few to warrant a special container. This, in general, must be true of other people's lives too.—E. B. White (1966:182-3)

Social process may be defined as the manner in which organizations administer their tasks within the constraints of time. The problem of doing so is the basis of the bureaucratic form. The precondition of bureaucratization, as we may recall from Weber's (1958) discussion of the subject, is the qualitative and quantitative increase in tasks; its functional advantage, the

speed and efficiency with which it performs them. Now if speed and efficiency are calculated by equations containing terms for time, as they obviously must, then the temporal dimension must be central to the description and analysis of bureaucracy. What is needed, however, is a perspective from which we can elaborate this notion of bureaucracy as a processing system, and extend it to social organizations in general.

To this end, I shall recommend a point of view which grows out of and extends an earlier interest in the social psychology and organization of access and delay (Schwartz, 1975). But a different, twopart, focus is involved here: (1) Whereas queuing phenomena were formerly taken to be constituent elements of social systems, I mean now to invert this standpoint and consider the respects in which the social system itself may be viewed as a queuing network; and (2) while queues were previously understood to be sources of distress to clients, they will be studied now in terms of the demands they make upon those who serve them. In considering these points of reference, I will confront the problem of how the integration of queuing networks (and the social processes which they embody) is brought about and sustained. I will also outline one approach to the solution of this problem.

# TEMPORAL CHARACTERISTICS OF SOCIAL ORGANIZATION

My basic assumption is that tasks and clients are invariably arranged by an

<sup>\*</sup> The author is indebted to Charles Bidwell, Charles Bosk, Morris Janowitz, Fred Lighthall and Murray Melbin for generous and very useful comments on an earlier draft.

organization's workers (servers) into interlocking lines of work, such that the output of one constitutes the input of another. The utility of the model is defined by this assumption. That is to say, the queuing perspective on social organization is applicable to all activity systems whose servers process discrete entities or inputs. Its fit with reality assumes only that (1) clients and/or things cannot always be encountered immediately but must often wait to be served or processed and (2) that a reciprocal relationship exists between server activity and client or unit inactivity. Social process, therefore, is a queuing process. Moreover, there can be no restrictions on the content of queues. They may comprise anything from people, folders, documents, or correspondence, to an organization of the day's chores. Our discussion, however, will be limited to "active" queues. The units of an active queue are those waiting to be administered to within a reasonably short time interval. By contrast, an inventory or "sleeping queue" consists of a set of units or tasks stored for processing at some remote date, for example, goods stacked up in a warehouse, or work to be done in the distant future.

From the above statements, two significant implications may be drawn. The first is that the doing of different kinds of work must be assimilated to the administration of different kinds of queues. This is because the decision to perform one act before or after another presupposes an assignment of priorities. Workloads thus convert to queues via the medium of choice, the consequence being that one thing gets done earlier or later than another. Because two activities usually cannot occupy the same place in time, choices, priorities, and queues are closely linked. The everyday vocabulary of work suggests this to be so. To exclaim, for example, "I don't want to get involved in that!" is to refuse to accept an item into one's work queue—an instance of "server balking." "I thought at first I'd do this but I changed my mind," is to reject an item already lodged in the queue-a case of "server reneging." Reducing the priority of a negative element in a queue is often announced thus: "I dread doing this so much I keep putting it off." Or the priority of this same element may be upgraded: "I dread doing this so much I'll go ahead and get it over with." Of course, priorities may be imposed rather than autonomously selected. Or they may be selected under constraint. But, no matter who makes or affects it, the existential factor of choice in human endeavor inevitably carries with it the problem of time and its allocation.<sup>1</sup>

A second implication, derived from the assumption that queues feed into and out of one another, is that the organization of a social system is an outcome of its process pattern. The concept of "functional integration" thus converges with the con-"synchronization." cept of Zerubavel, 1976:91-93.) One of the advantages of looking at formal organization in this way is that it highlights its timedependent character. Or, to put it negatively, it denies that organized activities can be understood independently of temporal pressures. In this particular sense, social process may be conceived as a set of operations which consume time: the time of the server, the time of the client or thing served, and the time of those clients or things waiting to be served. However, time is allocated and consumed in sequence as well as by volume. It is the sequential nature of activities which makes for the problem of their coordination, whose default results in a loss in the volume of time available to them. But any organized process also displays tendencies and rules which safeguard the efficiency of social organization by controlling the temporal cost of its operations. In this regard, the norm of punctuality plays the same role in the efficient integration of social process as the norm of reciprocity (Gouldner, 1960) plays with regard to the integration of social structure. Just as exchanges of material and nonmaterial benefits build up, by virtue of the norm of reciprocity, a network of obligations

<sup>&</sup>lt;sup>1</sup> On the other hand, a surfeit of choice with respect to the arrangement of priorities can lead to demobilization, as is the case among those who "don't know what to do next."

which define and bind together the moral commitments of a group, so the norm of punctuality promotes obligations which bring together and coordinate its activities.

However, this statement must be qualified in two ways. Because, in an integrated network of queues, the output of one unit becomes the input of another. one might assume that a perfectly integrated system would eliminate delay altogether. But if this were so, the very notion of a "queuing system" would presume inefficiency. Such a presumption makes sense logically, but not practically, for a system in which all internal queuing is eliminated would be too costly to be of use to anyone. In real organizations, efficiency is determined not by some general level of congestion but by the way it is "distributed." That is to say, one part of a system is normally speeded up by the introduction of bottlenecks into other parts. This means that a system's sticking points are indispensible to its overall efficiency. Just as the smaller gears of the machine rotate swiftly only on condition of being connected to other larger and slower moving gears, so the core functions of an organization are most easily accelerated by the slowing down of peripheral operations. This is why bureaucracies always use secretaries or receptionists as intermediaries to block or control access to those high officials who either perform or oversee the performance of major duties. By protecting a key executive from a queue which could be served elsewhere or at a more appropriate time, the intermediary "buffers" (Thompson, 1967:19-23) the bureaucracy's prime undertakings. The overall efficiency of operations is thus served by selectively creating congestion rather than relieving it indiscriminantly. This idea is expressed most cogently by Huggins (1973:53). "It is only because of the presence of a slow, sluggish component . . ." he writes, "that the rest of the sub-systems can be considered to have quick responses. Remove the slowest bottleneck, and several of the remaining components, which had hitherto been quick and responsive, now become bottlenecks; since these are now several

instead of one, the quality of overall performance may be inferior to the original situation." In short, strategically placed delays are the preconditions of organizational efficiency.

### Time Dependency

The above statements show that the norm of punctuality is more relevant to the operation of some sectors of an organization than others. We must now recognize its differential relevance among organizations. Some establishments, like libraries, are relatively immune to the constraints of time: within them, there is always work to be done but narrow scheduling and deadlines do not figure prominently in the nature of the work itself. In other settings, like emergency medical departments, time becomes, in effect, an organizing principle: all work (on bonafide emergency cases) is carried out under the proverbial sword. However, the salience of time parameters depends not only on the intrinsic nature of work but also on the ideals under which it is carried out. Thus, western systems of justice are time-dependent because of charters which in different ways affirm that "justice delayed is justice denied.'

Time dependency is also related to the interchange between a social system and its environment. Whatever the nature of their work or charter, therefore, organizations must experience vicissitudes in their time-bindedness. Making the most of time takes on extreme relevance during normal periods of peak demand or during unexpected "busy periods." There are, however, two basic ways in which an organization may adjust to these contingencies. It may build in a surge capacity to meet anticipated and even some unanticipated increase in workload, or it may smooth out environmental fluctuations by organizing into a queue the demands made upon it. Now the greater the power of an organization, that is to say, the more control it can exert over the time of those who require its goods and services, the greater its ability to free itself from time dependency by keeping its environment waiting. Less powerful organizations, located as

they are in a competitive market structure (Schwartz, 1975:24–30), tend to minimize waiting time by providing more service. Time dependency thus comes into view as a direct expression of social power.

We need to distinguish in our minds, however, among power, time dependency, and time scarcity. Although these three factors are associated empirically, they are and must be kept analytically distinct because of their independent consequences. Time scarcity is a relationship between the hours required for the performance of a task or set of tasks and the hours (i.e., "man-hours") available. Time dependency, on the other hand, refers to the fatefulness of performing or failing to perform a task within a period of time prescribed by circumstance or custom. Time scarcity in an organization may therefore be indexed by the ratio of servers to clients; time dependency, by the organization's commitment to schedules and deadlines. Time scarcity, along with the associated concept of time cost, is predicated upon this commitment.

Activities which are time-dependent are, literally, activities subordinated to time and, therefore, dominated by the clock. One might go so far as to say that, as a regularly recurring process to which people gear their activities, social organization itself constitutes the most perfect instance of natural clockwork. To emphasize, on the other hand, the queue-like nature of social systems is to place in the forefront of organizational analysis the issue of timing-the way temporal resources are put to use and articulated in day to day activities. Through such a conception, competing normative demands (in terms of which we have grown accustomed to locating and mapping organizational tensions and strains) are converted to something more concrete and recognizable, namely, competing demands on time. The time-bound quality of social organization is also affirmed in language itself, which assimilates "business" to "busyness"—work to be done in a hurry, before it is too late. The concept of the deadline thus dramatizes time in organizational theory in the same way that physical mortality dramatizes time in existential thought (Esslin, 1961).

Social Structure and Social Process

The more time-dependent an organization, the more intense its preoccupation with the division of time into discernable, manageable blocks. There is more concern, too, with the efficient integration of these units, that is to say, with sequencing, coordination, appointments, delays, and time waste. Above and beyond their relationship to the sources already described, these manifestations of time dependency are consequences of organizational differentiation. An advanced division of labor time-binds the system because it highlights and renders more imperative effective techniques of synchronizing the tasks of which queues are composed.

differentiation **Organizational** exerts independent effects on the nature of work. Regardless of a person's position in the vertical structure of an organization, his work queue becomes longer and increasingly linear, i.e., composed of elements which are identical to one another and interchangeable, as the organization becomes larger, more specialized, and more time-dependent. Because there is less time to be devoted to any one element in an expanding queue (Meier, 1962: 69– 71), service must become more and more stereotyped and segmented, and those who render it, more impersonal and indifferent. This can only occur if, as Sudnow (1965) puts it, each case is "normalized," that is to say, transformed from a complex configuration of assets and liabilities into a point on a linear distribution. Thereby, clinical dilemmas can be treated as actuarial ones. Thus converted, a client's problems are suitable for convenient priority assignment and efficient processing. The need for service may be new and unique to that client, but the linearity of the queue he is in renders even his most desperate need a matter of routine. His troubles become interchangeable with the troubles of another. The drama and passion of life's crises and emergencies are thus dissipated by linear coding and processing.

It is just as distressful to serve a linear queue as to be in one. Linear queues are "negative" queues. They are to be distin-

guished from alternating queues, which embody an arrangement wherein a server may divide his time between two or more sets of linear work, abandoning at will one in favor of another. Insofar as it reduces the monotony of interchangeable tasks, the alternating queue may be said to be "positive" in character. Indeed, the tedium of the linear queue-which is even more pronounced when it is infinite<sup>2</sup> and non-reactive<sup>3</sup>—is often the reason for organizing work into alternate queues in the first place. Marx (1959: 254) recognized this to be so in his vision of a utopia wherein every worker could rotate hourly among diverse tasks. "Communist society," he wrote, "makes it possible for me to . . . hunt in the morning, fish in the afternoon, raise cattle in the evening, criticize after dinner, just as I have a mind." Of course, even in a utopian society, work queues cannot always be freely selected. Thus, Engels (1954: 278) declares, "In time to come . . . the man who for half an hour gives instructions as an architect will also act as a porter for a period, until his activity as an architect is once again required." [Emphasis added.] What is abolished under utopian communism, then, is not time-dependency and its claim against individual discretion, but, rather, the tedium<sup>4</sup> of linearity.

## THE QUEUE AS AN ORDER OF MORAL DEMAND

Life is a confrontation between the individual and a world of naturally infinite tasks. However, this "work queue" is often thought to be more manageable if partitioned into finite fragments. To do so allows its "server" to deny the infinity of claims with which he is objectively faced and permits some sense of accomplishment that infinity would otherwise, by definition, negate. However, this is no more than a manner of conceptualization, one of the ways a person can talk to himself. In fact the very content of the discussion is a tribute to human frailty, vis-a-vis the perpetual claims made upon it. But in view of the fact that their satisfaction makes for accomplishment and the sense of being needed, why should we be so chafed by these demands? This is the main question. An effective approach to this question requires an appreciation of the subjective meaning of time dependency.

We must first recognize that the very existence of a queue, and the priorities which it embodies, betrays the fact that its server is "working behind." But if the queue symbolizes unfinished work, it also indexes the divergence between what others expect us to achieve and what we actually get done. Hence its oppressiveness, which is manifest in the very way we refer to it: the work-queue is a "workload"; to process it in the face of a deadline is to work under the "pressure" that any burden creates. This consideration informs the often ambivalent views which servers hold toward their clients, who are at once a source of livelihood and burdensome demand. The less precise the connection between a server's rewards and the magnitude of this demand, it would appear, the greater his antagonism toward those seeking to join the work queue. (Hence the discourtesy so commonly found among salaried personnel who serve the public.)

However, there is another curious thing about queues. When we hear such expressions as "cleaning up" a pile of work or backlog, we sense that the queue is not only a source of work; it must also be a source of contamination—dirt, as it were, to be gotten out of the way and disposed of. We should trust such an intuition, for the queue is in fact a source of *moral* contamination.

The queue is morally significant because it is more than a way of organizing work; it is above all a way of organizing obligations. This has mainly to do with the fact that each element in a queue has rights which correspond to the duties of its

<sup>&</sup>lt;sup>2</sup> Queues which emanate from an inexhaustible origin, as do those which form before highway tollbooths, are said to be infinite; finite queues, on the other hand, are instanced by quotas or a fixed sequence of demands which has a discernible beginning and end.

<sup>&</sup>lt;sup>3</sup> Reactive queues contain human beings who respond to their server in different ways; nonreactive queues consist of inanimate objects which are directly or indirectly related to or owned by people who are not immediately present.

<sup>&</sup>lt;sup>4</sup> Tedium is to be distinguished from boredom, which results from the absence of a queue to administer.

server. These rights bear most heavily when they are morally warranted. The queue is oppressive, then, so far as it represents the tangible manifestation and organization of a server's indebtedness. Accordingly, the uneasiness which attends the turning aside from a queue is a measure of the degree to which the integration of social process is energized by moral sentiment. This same affect is reflected in the vocabulary of work. The expressions "being behind" or "buried under," as opposed to "being caught up with," "ahead of," or "on top of" one's work are invested with meaning because. in the symbolism of priority, to be behind or under connotes social inferiority. (It also connotes being "late," which, in the English language, is associated with being dead.)

By reason of such a configuration of meaning, the step from normal, everyday work to the pathology of everyday work is a short one. Because it represents the framework within which his labors are moralized, a server can become obsessed with his queue; the high-priority elements can "take over" his consciousness and monopolize his actions. If these more or less exclusive priorities fail to articulate with his own needs, or the priorities and demands of others, then strain must ensue, as among those who neglect their health or family in favor of their work, or vice-versa (the latter being more often true than is commonly appreciated in this affluent, suburban age). It becomes immediately apparent, at any rate, that the phenomenon of "life style" is no more than the external expression of an internal hierarchy of priorities.

The psychopathology of occupational or "leisure" activities may also take the form of what Fenichel (1945:204) called "time-claustrophobia." "I feel like everything is closing in on me!" complain those experiencing it. However, the psychiatric nomenclature and the common metaphors from which it is derived do not precisely describe the psychological mechanisms involved. The sense of being "closed in on" reflects not only increased demands and pressures from the environment but also an internal failure—the inability to subordinate one task to another and feel

comfortable about it. It is a matter of an insufficiently differentiated queue. This creates an internal contradiction: everything is given first priority, but only one thing can be so treated. As a result, there is constant activity and yet a constant sense of urgency and remorse, so that whatever one does is accompanied by the feeling that one should really be doing something else. (This is said to be the principle animating the "workaholic" and heart-attack prone personalities.)<sup>5</sup>

However, the burden of the queue normally stems not from the expenditure of energy devoted to it, but from its very existence. One cannot rest until it is "cleaned up." There is a corresponding eschatological element: when it finally is disposed of, there will be bliss. The grosser forms of pathology obtain, though, when a backlog becomes disorienting, when the moral demand it embodies becomes a source of debilitation rather than a fount of effective drive. One of the most dramatic instances of such misfortune is a case reported by Bernstein et al. (1975:1045), which concerns a 34-year-old mother of three, continually engaged in the cleaning of her home. "I just can't stop," she said. Because of her inability to "catch up," explains Bernstein, she suffered constant depression, which was relieved only by final resort to a prefrontal lobotomy. From the present standpoint, of course, it can be no coincidence that a work queue obsession, which is an accentuated form of a conventional moral commitment, should be negated by a procedure which deliberately destroys a portion of the moral sense.

If the obsessive is simply an exaggerated form of our normal commitment to queues, then guilt and depression can only be pronounced versions of the vague uneasiness which normally attends the fail-

<sup>&</sup>lt;sup>5</sup> In the same connection, Wilsnack (unpublished) has constructed an Urgency Scale which consists of a series of items which tap an individual's sense of being under time pressure. This scale correlates highly (r≥ .60) with personal anomie, loneliness, manifest anxiety, and powerlessness. The Urgency Scale was developed and used in Wilsnack's doctoral dissertation; however, the correlations just reported are not contained there. (Personal communication.)

ure to properly acquit ourselves of our duty to them. The problem, of course, is whether these moral sentiments result from the specific organization of work or from its intrinsically obligatory character. That is to say, if work were not arranged into a queue, would it be equally demanding? This question, which might sound reasonable on its face, actually assumes the separation of two empirically inseparable elements, namely, the doing of work and the necessity of according different priorities to its separate facets. We must now assert that the obligatory, i.e., moral, aspect of work can only express itself through the medium of priority. Morality and priority are two sides of the same coin. However, the relationship is not altogether straightforward. Although we do tend to accord highest priority to the most morally demanding tasks, it is also true that tasks become demanding—and therefore gnaw at our consciousness and conscience when left undone-precisely because they are accorded a high priority. What this means is that the constraining elements in work are not altogether intrinsic to the task at hand but must be derived in part from its location in a queue. The truth of this statement is to be found in general experience. After all, is it not common, after having relieved oneself of some pressing obligation, to find heretofore trivial concerns suddenly taking on central importance and becoming fresh sources of preoccupation? Just as if, upon some spring-supported platform, our obligations were piled one on top of the other, so that the removal of the uppermost or highest priority concern results only in the one immediately below rising to take its place in the vertical queue.

The above statements convey two main points. The first is that the queue is a psychological as well as a social structure. The second point is that the queue of the mind is an objective form, abstractable from any and all contents. These two statements must be appreciated in context of a third point: that the queue of the mind is intimately related to those queues which take form outside of itself. It is created and maintained because it gives direction to our activities and so preserves the stability of the system into which we are

integrated. If there were no such internal structure, then we would be indifferent about the temporal sequence of activities. And since an organization of random activities is a contradiction in terms, social order would be impossible. Thus, the universality of psychological queues is to be traced to the imperative character of social goals and their priorities. And yet, there is an organic correspondence between the two. By facilitating the linkage of individual activities to some superpersonal scheme, the queue of the mind limits, disciplines, and so gives meaning and direction to the individual life.

On the other hand, the queuing process is not a general model of the way individuals actually apprehend their world. This qualification leads us to a final point.

The queuing perspective is an analytic device, derived from an objective social process, which enables us to explore the structuring and sequencing of activities as problems to which the personality must adapt. Because it makes explicit certain phenomena of which we might not otherwise be aware, the usefulness of the queuing perspective resides in its inconsistency with individual perception. One might even say that this perspective is at variance with normal frames of interpretation and meaning. To see oneself as a mere server of queues would, after all, be depersonalizing, and demoralizing; it would imply that one is no more than a cog in the wheel of social organization. And yet, the increasingly pervasive sense that this is actually so, and the corresponding development of a perspective which describes this alienating reality, may spring from one and the same source, namely, universal participation in large-scale organizations whose work is broken down into narrow components and processed in predefined sequence.

On the other hand, the queuing model approximates the way men actually interpret their experiences when the temporal order in which they conduct themselves becomes problematic. This condition is most pronounced among those sectors of an organization in which there is discretion as to the use of time. It is therefore no coincidence that time management consulting firms draw their clientele exclu-

sively from the harried executive stratum. whose members are most likely to be burdened with alternating queues and the attendant responsibility of planning their own activities.6 Nor can it be a coincidence that rational time management (whose most renowned method is that developed by Lakein, 1973) involves the deliberate ordering of everyday work in terms of schedules and priorities. This approach is plainly organized around the basic principles of queues and their integration. But if such a standpoint is to be consciously used in the interpretation of routine experience, then, over and above its intrinsically alienating character, that standpoint must perform a useful function—whose referent is not difficult to find: it is the establishment and maintenance of selfcontrol and social order in advanced bureaucratic society.

### CONCLUSION

Much of the foregoing may sound remotely familiar. It is perhaps most directly reminiscent of Simmel's classic essay on the social psychology of the metropolis:

The psychological basis of the metropolitan type of individual consists in the intensification of nervous stimulation which results from . . . the difference between a momentary impression and the one which preceded it. . . . [However], the person resists to being leveled down and worn out by a socialtechnological mechanism. An inquiry into the inner meaning of specifically modern life and its products, into the soul of the cultural body, so to speak, must seek to solve the equation which structures like the metropolis set up between the individual and the super-individual contents of life. Such an inquiry must answer the question of how the personality accommodates itself in the adjustments to external forces. (Simmel, 1950:409-10.)

By his reference to the sequential nature of external stimuli, Simmel implicitly casts the social environment into the form of a queue.<sup>7</sup> By his reference to accommodation and adjustment, he affirms the management of that queue to be an intrinsic problem of human cognition.

Translated into the contemporary idiom of "overload," Simmel's concept of "nervous stimulation" provides us with a bridge linking metropolitan life and individual experience (see Milgram, 1970). For the management of the excessively diverse and voluminous impressions of the modern city constitutes its central psychological problem. For Simmel, then, adaptation to oppressively manifold "inputs" must be the main concern of the social psychology of modernity. The present paper is an attempt to take up, qualify, and elaborate this assumption.

We have shown that overload is only secondarily a psychological problem; it is primarily social. That is to say, massive stimuli emanate from and are managed within specific organizational settings. Thus, if the general order of modernity is time dependent, as has properly been claimed, that order is most acutely realized in its constituent, bureaucratic, organizations. In saying this, one is reminded of those old movie images, particularly common during the 1940's, of busy telephone switchboards and harried but efficient operators valiantly directing and controlling the traffic between a beleaguered organization and an infinitely demanding outside world. The switchboard was used then as a symbol of the overload of the modern industrial and corporate order. Today, however, the switchboard has unfortunately become a metaphor of the human mind (Peterfreund, 1971), whose morality is reduced to pathways and circuits.

But if some of our contemporaries go too far in psychologizing the problem of overload, they also misrepresent the process of adaptation. This is true in two respects. First, no one has ever tried to explain why excessive stimulation from the environment should be oppressive.

<sup>&</sup>lt;sup>6</sup> Linear and alternating queues are managed in single-task and multiple-task roles, respectively. According to Jaques (1964), multiple-task roles admit of a longer time span of discretion and therefore carry more responsibility and power.

<sup>&</sup>lt;sup>7</sup> This statement is consistent with Simon's (1974) observation that human beings absorb information from their environment in a serial order.

<sup>8</sup> See Mayhew and Levinger (1976) for an explication of this relationship in terms of size and density of human aggregation.

Why must it be adapted to at all? The issue is skirted by reducing it to the quantitative referent of "nervous stimulation" or "sensory overload." Both conceptions take the demands men face and strip them of their moral qualities. By converting a heretofore abstract notion of neutral physiological "stimuli" or "inputs" into an order of queued obligations, however, we have reintroduced this moral element. Secondly, we have shown that adaptation to an otherwise overwhelming environment is not confined to the "reserve" and "blasé indifference" with which Simmel (1950:413-416) has come to be so wellassociated. These forms are merely passive aspects of an essentially positive achievement in organization and management. Invariably adopting the queue as its model, however, such an accomplishment is to be derived not from the needs of the individual but from the imperatives of social organization. There is surely nothing in the makeup of the human personality that would bring it to respect (let alone impose upon itself) schedules, deadlines, and systematic priorities. Modern man submits himself to these integrating strictures only because he lives and works in a network of queues and in the face of limited time. Were this not the case, the psychological pressures of which Simmel first spoke would soon be dissipated. The anthropology of preliterate and traditional societies with "time surpluses" (Linder, 1970:17-19) and lenient, nonpunctual "time sets" (Hall, 1959:128-145) demonstrates that this is true. The overload or moral oppression of a psychological queue, then, is simply a reflection of the state of an objective queuing system, whose own moral demands analytically and empirically precede it. This underlying moral factor, which makes strictly formal obligations to a queue psychologically meaningful and which inspires a deep commitment to them, is the ultimate source of organizational efficiency. In contrast to our initial conception of bureaucracy and formal organization, with its stress on rational management and administration through highly ramified and complex timetables and schedules, we come to the conclusion that the integration of social process presupposes some-

thing more primitive and irrational, namely, a psychology of commitment molded by the moral imperatives of choice, priority and workload. It is convenient that this should be so. Because the modern individual can never fully invest himself in the institutions in which work is performed, his commitment to queues guarantees their integration only so far as that commitment becomes an end in itself.

Thus, while social organization is a specific manifestation of social process, its dynamism cannot be understood through concepts currently in use. Social systems and their members do receive inputs, adapt to them, and, via complex feedback mechanisms, productively transform them into outputs. This is a statement which in itself produces little controversy, for its imagery can represent no more than the beginning of an empirically adequate model of social process. One of the significant problems of contemporary sociology, therefore, is to link up current interest in the dynamic aspects of social systems with a proper accounting of the stable moral elements which inform their operation. It is a matter of designing a perspective which avoids the mechanistic imagery of perspectives like modern systems theory (Buckley, 1967) but at the same time preserves their concern with the integration of social processes. The present paper is meant to point and move us toward this goal.

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