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Decision Making About Decision Making: Centralization at NSA

Editor's Note: Although this article was not submitted to Classified Action Line, its subject might lead readers to consider it as, in effect, a Super Classified Action Line item. A serious student of management as well as an experienced NSA manager, Mr. [redacted] *has written a provactive article on a subject close to us all. Spectrum will welcome other articles, letters, etc. on this subject.*

The 1 July 1973 reorganization of NSA has put squarely before us a question we have evaded for years: is centralization as a management design the right thing for NSA? For our reorganization this past summer has made centralization in its several senses the dominant managerial approach within NSA. We have not called it centralization; we have even spoken about decentralizing effects. But in its structure, rationale, and execution, our current way of doing business is standard and classical centralization as defined in management theory since the 1920's. The essential questions are: (a) will it work, and (b) what are the alternatives?

To find answers to these questions, we need to look at what has happened to other organizations under centralization and what has happened under alternative systems. Fortunately, researchers and managers have experimented with various forms of management and recorded their findings in voluminous detail. They have also isolated and identified indicators of organization trends. These we can look for in NSA to try to predict where we are heading.

How It Got Here

Centralization as a professional management technique began with monarchy. It received scientific endorsement and therefore exalted status through the work of Frederic Taylor in the early part of the century. "Scientific management," as Taylor called it, stressed the most efficient use of energy (usually human) as determined through his time-and-motion studies to accomplish a task. Scientific management was largely discounted by the 1950's because of its failure to take into account human feelings and reactions. It received new prestige with the advent of operations research and systems analysis and the McNamara era in government, which stressed rational decision making based on quantifiable evidence. The burgeoning computer world and other technological advances shifted emphasis once again to efficiency of goal attainment and away from people concerns.

McNamara's techniques found a warm response at NSA, already comfortable with mathematical thinking. Our natural predeliction for numerics, reinforced by our history of traditional military management and discipline, led us to accept centralization as natural to our environment. Nevertheless, we retained organization by target as our principal mode of operation for some years. Then came the 1 July reorganization. Some organization by target remains, but centralization has become the ascendant form of organization.

What It Is

The first meaning of centralization in management literature is the grouping together of like work functions under the name of "commonality" for greater efficiency and the reduction of overlap, redundancy, and competitiveness. It implies greater specialization of approach by technicians in the same fields working together. Its simplest form is the assembly line used by the automotive industry; for the Sigint business it implies putting all traffic analysts into one work group, all linguists into another, all reporters into a third, etc.

The second meaning of centralization is the concentration of decision making into the hands of a few top-level managers. This second definition is not spoken of so frequently as the first, perhaps because of its anti-democratic flavor. What is essential to the understanding of centralization as a management technique is that implementation of centralization in the first sense invariably leads to centralization in the second sense, whether or not it is so advertised or even intended.

The inevitability of the process derives from the nature of decision making. To decide what to do, a worker or manager needs to (a) know as many of the relevant facts as possible, and (b) have the ability to execute his decision. Decisions made without information run a high risk of disastrous consequences. And, to paraphrase Mary Parker Follett, a decision made without the means to implement it is no more sane than the man who told himself jokes and only laughed at the ones he had never heard before.

To the degree that (a) the processes of a production system are isolated from one another, and (b) the processes are interdependent, the manager of a single process rarely has enough information or implementation power to be able to make a sound and feasible decision. Indeed, the only man who can effectively decide is the manager of the entire system. For the process manager (a) receives his raw material and his requirements from other parts of the system, and (b) feeds other processes with his output and his requirements. He can therefore make very few modifications in his own process without impacting on the entire system.

Few systems are as interdependent as the Sigint one. Its success depends to a very large degree on effective interworking of the processes which start with collection and end with product. The fabric formed by interweaving feedback loops among the processes (collection, TA, CA, language, machine support, communications, collateral support) makes eighteenth-century Italian opera plots transparently clear by comparison. It is either impossible or pointless for any of the processes to be performed without at least some of the others.

How It Has Been Implemented at NSA

Centralization is manifest at NSA in both its senses. Examples of the first sense are (a) the approach of A Group, which is largely organized on the basis of function (TA, CA, collection, reporting) rather than target, and (b) the concentration of [redacted] in G Group (here again with functional subdivision—TA, language). Centralization in the second sense is embodied in the organization of ODDO, particularly NSROC, which ostensibly controls dynamic collection, reporting, and requirements for the whole of what used to be called PROD.

Centralization: Strengths and Weaknesses

Since the 1950's, a new group of scientists and researchers, called the "Third Force" by Colin Wilson, has coalesced around a way of looking at man long held by artists, mystics, and religious and political revolutionaries—including the drafters of the Declaration of Independence. These men, including psychologists, sociologists, and management specialists, have given the underpinnings of respectability to a highly positive view of man by the use of scientific method. By studying the way men work, react to each other in groups and organizations, and respond to varying forms of management, they have been able to establish with good credibility that growth, self-determination, and creativity are as instinctive as survival, sex, and ego needs.

Travelling under the fuzzy name of "behavioral scientists," the men of this school—Maslow, Herzeberg, John Gardner, Bennis, McGregor, Drucker, and others—have become the dominant force in managerial writing and theory. What they have learned about centralization is worth reviewing to see if it applies to NSA.

Centralization designs, according to third-force researchers, are based on unarticulated managerial assumptions about the nature of men and the way they work. These assumptions, which constituted conventional wisdom about work starting with monarchy, tend to stress the less appetizing qualities of workers—irresponsibility, recalcitrance, stereotyped thinking, laziness, rivalry—and accent the need for strong control to suppress these innate tendencies. The same designs assume that organizations operate mechanistically (like machines). Insofar as these assumptions are valid, centralization promises (a) greater efficiency from workers through tighter control, (b) technical strength through pooling technical resources, (c) manpower savings through the elimination of overlap and simplification of the task, (d) congruent decisions through centralization of authority in the hands of the most competent, and (e) less waste by the elimination of competition among rival groups doing the same job.

Studies of highly centralized organizations (notably by Likert, Schein, Bennis, and Argyris) show that few of these promises bear fruit principally because the designs fail to account for the way people behave in organizations. Centralized decision-making works demonstrably well when (a) no decisions need be made at all, (b) decisions are simple or trivial, (c) a crisis has galvanized the work force, or (d) the system is fully automated. Centralized organizational designs tend to become dysfunctional when

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(a) a large number of decisions need be made, (b) decisions are complex and important, (c) a crisis is not in effect and long-term decisions are needed, and (d) the system is made up at least in part of people.

A number of writers have described the following cycle of organizational behavior, which almost inevitably emerges after centralization. Inasmuch as the senior manager is regarded as the most competent, the organization is so designed to place decision making largely within his hands. But he is limited as to how much information he can absorb quickly. To the degree that his organization is large and/or made up of highly trained technicians and professionals, it is necessary that he establish a staff to which he delegates reactive approval power—the authority to approve actions proposed by others in accordance with strict policy guidance issued by the senior manager. The staff is also expected to have at hand information needed by the senior man to make decisions quickly. To do this they establish what Argyris describes as JIC (just in case) files designed to cover all information the manager might need. Because operational elements are called upon to supply a steady flow of information to the staffs, they establish *de jure* or *de facto* staffs of their own with their own JIC files to avoid diverting working elements from their primary tasks of production. The layering effect that results slows down and distorts information flow, particularly in large organizations. One of the unintended side effects of centralization is the diversion of workers to staff work. One theorist, Thompson, measures the dysfunctionality of the organization by the number of people in the organization not working directly on producing the organization's product.

The evolution described in the foregoing produces another effect on the behavior of the members of the organization. Inasmuch as (a) they are called upon to execute decisions over which they have little influence, and (b) the future of their careers lies very much in the hands of the centralized authority, they tend to become "housebroken"—more concerned with following rules and pleasing the centralized authority than with the best way to get the job done. The result is a decline in innovation and creativity and the reliance on "set," a proclivity for re-using problem-solving techniques from the past, whether or not they apply. Another effect is increasing dependence on the centralized authority, fear of making a mistake, and a strong urge to present the most pleasing picture to the boss. These tendencies lead the centralized authority to use the staff to check on the veracity of operational elements, creating mistrust on all sides.

As these developments progress, organizational atrophy begins. The organization tends to become rule-bound, productivity goes into decline, labor union problems rise, morale decays, and absenteeism rises sharply. In industry, unless the cycle is broken or sidestepped, the result is eventual organizational suicide. Not so in government, as Drucker points out, for it is possible for bureaus to continue in existence long after they have ceased being productive. The Corregidor—Bataan memorial commission (still alive and well) comes to mind.

Most organizations, fortunately, develop self-healing devices. Sidestepping is the most effective of these. It appears in the form of getting around the rules and the official management system for the purpose of getting the job done. Hence, there arises the grapevine for information exchange, an informal network for verbal coordination which bypasses chain-of-command, and tacit decision making at levels well below the centralized authority. The senior executive, once he is aware of sidestepping, tends to react one of two ways. Occasionally, he tightens control and attempts to destroy it; more often, he uses it to his own advantage to gain access to hidden information, to get a decision executed quickly, to foster innovation.

Centralization at NSA

If Drucker, Thompson, Argyris, McGregor *et al* are correct, centralization at NSA should be producing at least some of the symptoms of evolution described in the foregoing. Many of the symptoms are evident—for example, morale problems, message coordination procedures, the JIC files. But a valid analysis requires more reliable data. Two readily available measurements are possible.

If it is valid to measure NSA's productivity by the rate of intelligence product, centralization may be having the predicted effect. Between 1 January and 30 June 1973, NSA published 9,894 open-series intelligence reports (including translations)—or about 1,650 per month. Since 1 July, the date of the reorganization, the average has dropped to about 1,380 per month, or about 16 percent less (figures for July, August, and 28 days of September). While there are many variables which might explain the drop, it is high enough to warrant further investigation.

The other measurable symptom is the percentage of personnel not assigned to the actual production of Sigint. The authorized strength of DDO as of 1 July was [redacted] of which [redacted] were alotted to organizations (ODDO, W, C) not primarily engaged in direct Sigint production. Organizations responsible for product (A, B, and G) were authorized [redacted] Although no figures are available on how many of the [redacted] are doing other than production work (i.e., management, staff, support), it is a reasonable

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estimate that they number at least [redacted] Therefore, only [redacted] are directly engaged in the production of Sigint. Hence [redacted] from ODDO, W, and C plus [redacted] from A, B, and G) are not directly engaged in Sigint production and [redacted] are. In other words, more than half the work force within DDO is not directly engaged in producing the organization's product. By Thompson's measure, then, the organization is about 52 percent dysfunctional.[2]

These two measurements are striking enough in their own right to suggest that the centralization syndrome already exists. But for a better case, these measurements should be refined and others used. The most useful of these is absenteeism and resignations. We need to know whether sick leave and annual leave are on the upswing (taking into account the seasonal average), whether resignations are on the rise, and what morale is like. But the critical issue is productivity. We need to define what we consider to be our product in addition to intelligence reporting and to measure it over a period of months to see if we are actually in decline, what the cost/productivity ratio is, and how good our product is.

The Alternatives

Thus far, I have cited a scenario developed by researchers as the paradigm or typical sequence of events that emerges with centralization. I have reviewed what evidence is available to me to suggest that NSA is following the predicted course, and I have suggested other tests or measurements which can produce more reliable evidence. The indicators we have do suggest that the centralization syndrome has begun at NSA.

At this point we need to examine what the alternatives to centralization are and consider their strengths and weaknesses. The only clear alternatives, as far as I can see, are those which fall at the opposite end of the management spectrum under the general title of decentralization. These include approaches described by their opponents as "permissive"—participative management, management by objectives, job enrichment, and what McGregor calls Theory Y management.

All of these approaches share an underlying assumption about the nature of man. The assumption, deriving principally from Maslow's and Carl Rogers' work in psychology, is that man by nature needs to grow toward fulfillment of his individual personality and that he will do so naturally through his work unless barriers are placed in his way. The assumption does not deny that men are capable of meanness, laziness, deceit, and destructive competition; it asserts that these traits are distortions of human personality: they arise as natural needs are thwarted and growth is prevented. Although there are masses of research evidence supporting this basic assumption about man, there can be little question that much of it falls within the bounds of self-fulfilling prophecy in much the same way that centralization assumptions do.[3] The compelling argument in favor of the Maslow-Rogers assumption is that the results it produces in practice are vastly superior to those of other self-fulfilling prophecies. Organizational survival and productivity (two cardinal goals of any organization) fare much better in organizations operating under this assumption than under others, as experience in business has proven over and over again.

Each of the management approaches listed above places stress on the human being as the most important resource of any organization. In varying modes, the approaches identify ways of trying to maximize the human resource in accordance with the underlying assumption about the nature of man. In practice the decentralization design places as much decision making as possible at the lowest organizational level and consciously trains workers to accept and use it well. It deliberately tries to create settings conducive to personal growth. It replaces control and coercion with commitment derived from participation in goal setting and decision making. And it attempts to build challenge into job design.

Three examples from industry are instructive. Some years ago, the IBM typewriter division began to seriously question the utility of continuing assembly-line construction of typewriters. Under the leadership of a courageous vice president, the company tried an experimental program in which each machine was assembled from beginning to end by a single worker. As the experimentation progressed, the name of the assembler was enclosed with the machine when it was shipped to market. Should a buyer find it necessary to return the

[1]The estimate was arrived at in the following way. Official direction limits span of control for a given manager in DDO to ten. By extrapolating through four or more layers of management (DDO has six), it turns out that about 11 percent [redacted] would be managers. If the span of control is less than ten, the figure would be higher. It seems excessively conservative (but I will do it anyway) to estimate that the number of staff and support personnel (secretaries, 09ers, administrative etc.) is no higher than the number of managers they support. Assuming [redacted] people in staff and support plus [redacted] managers, I rounded the resulting total of [redacted] lest it be inflated by other variables unknown to me.

[2]This applies only to DDO. If the entire agency is considered—including D, F, M, and L the figure may go much higher than 52 percent.

[3]People tend to behave in accordance with the roles others assign them, especially in organizations.

typewriter to the factory for repairs, it was to be returned to the assembler personally. The experiment was a phenomenal success. Productivity rose, costs fell, absenteeism and turnover declined, and, perhaps most important, the quality of IBM machines came to be recognized as superior.

American Telephone and Telegraph tried a slightly different approach in the assembling of telephone books. It was not practical to assign the assembly of an entire book to a single employee. But ATT found that it could assign each letter of the alphabet to a single person. Again, productivity rose, costs went down, quality control ceased to be a problem of consequence.

A Chrysler dealer in Massachusetts found that he was having major problems with servicing—adjustment of new cars was not satisfactory, customers complained about having to bring a car back several times to get repairs done properly, and general dissatisfaction with—and within—the service department was rampant. The dealer instituted a procedure in which each new car sold was adjusted and prepared for the owner by a mechanic who was from then on responsible for work on that car each time it was returned for servicing. The owners came to know the mechanics by name and dealt with them directly. The program was so great a success that the dealer found he could sell new cars almost at list price, without discounting, because owners valued so much the greatly improved servicing.

Each of these examples has in common involvement of the individual worker with his product and responsibility for the quality of the work as a result of the entire work process being turned over to him. Commitment and internalized responsibility in these cases clearly works far better than the ostensibly more efficient but less effective method of dividing the work into pieces and assigning the pieces to groups of workers who do them over and over—in essence the assembly line approach—under the careful watch of quality controllers.

Some companies have experimented with group work, leaving the scheduling, quality control, assembly design, and work hours to the discretion of the workers. Other firms have introduced the Scanlon plan, which offers workers a voice in the management of the company, a share of the profits as productivity goes up and new ideas are implemented, and multidirectional communications which allow new ideas to be heard and acted on. Again, the results have been largely successful.

Among major holdouts in industry for centralized management are the automobile manufacturers whose labor problems and quality control difficulties are now matters of critical national concern. Foreign automobile manufacturers have begun to experiment with group work and single-man assembly techniques in what promises to be an innovation of major importance to the industry.[4]

Experience from industry and new knowledge from research point to what we might want to try at NSA, were we to move toward decentralization. The first requisite would be job enrichment. At NSA, job enrichment might take the form of charging analysts with responsibility for the entire Sigint process from planning collection, working with analysts in other disciplines to derive technical and intelligence information, to reporting the results. An approach like this implies a lessened need for collection managers and reporters and a greater need for more and better analysts capable of a broadened approach. It also strongly suggests a reduction of staffs and an increase in operational personnel

A second step would be assigning Sigint production problems or sub-problems to the smallest possible autonomous groups which would be responsible for major decision making affecting those problems—how to allocate resources for greatest intelligence and technical productivity, assuring quality production, and making the best use of human talent. This step would require deciding how to divide targets into the smallest components that could be sensibly handled as independent entities and ensuring communications between groups on related targets. It also presupposes a mix of disciplines within a work group for greatest interplay among workers. It might also lead to cross training for traffic analysts, linguists and other technicians so that individual workers could handle the entire spectrum of work on a given target.[5]

A third and utterly crucial step would be the training and selection of managers so that their basic assumptions about the nature of man and the way he works make sense in the context of worker autonomy and commitment. An authoritarian manager in a humanist or Theory Y context leads to manipulation and the destruction of trust—a primary requisite for a fruitful work environment.

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[4] On the whole, established labor unions have opposed the introduction of decentralized work designs, principally because they create conditions of satisfaction in the work ecology that robs unions of their importance. Much theorizing has appeared in print in the last three or four years that the continued press for higher wages, once the hallmark of labor problems, stemmed from a basic desire on the part of the united workers to make management pay through the nose for the punishment inflicted on labor. Recent trends towards demands for benefits other than purely monetary and the beginnings of work designs that place more control in the hands of the workers have led some writers to predict the ultimate demise of unions, at least as we have known them.

[5] Experiments in cross training of linguists and traffic analysts to cope with voice processing have proven uniquely successful in B6.

A fourth step would be gradual training of workers to accept both choice and responsibility. The engendered dependency and lack of trust and self-confidence built into worker attitudes in a centralized work situation do not disappear overnight. The building of a sense of responsibility, self-reliance, and courage in the members of a work force taught for years to be passive, dependent, and fearful has been the cross of many a progressive manager.

A fifth step of overriding importance is a shift in the conscious priorities of senior NSA managers. Decentralized management dictates putting the development of human beings ahead of virtually any other consideration. A basic tenet of this approach to organization is that managers concern themselves with the growth of their subordinates; subordinates concern themselves with productivity and organizational survival. Inasmuch as most of our budget is spent on people, this philosophy makes eminently good sense.

Clearly, a program of decentralization applied at NSA would face difficulties of monumental proportions. The change in outlook alone would take years. The very concept of coaching for a manager (as opposed to controlling and ordering) is so alien to many of us that we would have extraordinary difficulty learning to operate. Distrust has been an organizational feature of our structure for so long—as epitomized in the chain of reviewers who must check and recheck a message or report before it is released—that we will have great trouble learning to live with less of it. And for managers who have sought for most of their professional lives trying to establish stability and continuity through control, facing a managerial design which encourages change and even turbulence, albeit healthy and fruitful turbulence, is indeed a frightening prospect. Moreover, for any system based on individual autonomy to work, the flow of information must increase greatly to assure that those making decisions have the information they need to make decent ones. Some of that information should be facts on decisions made about workers' careers; our managers would have to learn the courage of unadorned honesty.

Two of the strongest arguments against decentralization are that (a) members of an organization will take advantage of premissiveness for selfish gain to the detriment of the organization, and (b) people are faulted and make mistakes when allowed to make their own decisions. Related to the last point is the objection that considerable experience and a broad base of knowledge are required to make decisions and people at the lowest level of organization simply are not smart enough. These arguments are at least partly valid. But the issue we must face is this: are the risks great enough to cause us to maintain centralization with its inherent weaknesses? Do not the same risks obtain with centralization—perhaps to an even greater degree (senior managers make mistakes especially when they are far removed from the scene of the work and are subject to distorted information; centralization encourages alienation and therefore exploitation of the organization vice commitment to it)? Is innovation and creativity—far more likely to emerge in decentralization than centralization—valuable enough to be worth the risk? And finally, since most people are somehow smart enough to manage their private affairs passably well, can they not learn to use their intelligence on the job?

The Future

To the degree that the theories and information cited in the foregoing are valid, we are faced with some curious choices of the alternative futures open to us. We can choose to stick with centralization with the expectation of dysfunctionalism and organizational atrophy, and a faint hope that sidestepping will keep us going; or we can choose to move toward decentralization with its colossal difficulties. Human frailties incline us to live with pains we know rather than fly to others we know not of. But sensibility suggests leaning toward decentralization because, if for no other reason, a risk of problems is better than a virtual certainty of problems.

A cogent argument to tilt our judgment toward decentralized management designs emerges from the social change around us. The work expectations of our population are rapidly changing. The same impulses in our society that have given rise to opposition to minority prejudice and widespread distrust of our institutions are leading workers to expect and even demand greater opportunities for autonomy and growth on the job. The trend is most pronounced in highly trained and educated technicians and professionals. So long as a centralized design remains, destructive friction is inevitable, although it may remain hidden for a time.

Finally, we must come to grips with a dissonance we create in our organization now. The Third-Force way of managing is all that we teach in our managerial courses—indeed no other theory of management is now considered scientifically justifiable. Yet we reach more towards centralization. In our private lives we practice and preach democracy, raise our children to be self-reliant and independent, and bridle when our right to individualism is threatened or constrained. Yet we so design our work that housebrokenness rather than self-determination and creativity is rewarded. Sooner or later we shall have to face our own inconsistency.

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