We don’t need flat organizations. We need layers of accountability and skill.

In Praise of Hierarchy

by Elliott Jaques

At first glance, hierarchy may seem difficult to praise. Bureaucracy is a dirty word even among bureaucrats, and in business there is a widespread view that managerial hierarchy kills initiative, crushes creativity, and has therefore seen its day. Yet 35 years of research have convinced me that managerial hierarchy is the most efficient, the hardiest, and in fact the most natural structure ever devised for large organizations. Properly structured, hierarchy can release energy and creativity, rationalize productivity, and actually improve morale. Moreover, I think most managers know this intuitively and have only lacked a workable structure and a decent intellectual justification for what they have always known could work and work well.

As presently practiced, hierarchy undeniably has its drawbacks. One of business’s great contemporary problems is how to release and sustain among the people who work in corporate hierarchies the thrust, initiative, and adaptability of the entrepreneur. This problem is so great that it has become fashionable to call for a new kind of organization to put in place of managerial hierarchy, an organization that will better meet the requirements of what is variously called the Information Age, the Services Age, or the Post-Industrial Age.

As vague as the description of the age is the definition of the kind of new organization required to suit it. Theorists tell us it ought to look more like a symphony orchestra or a hospital or perhaps the British raj. It ought to function by means of primus groups or semiautonomous work teams or matrix overlap groups. It should be organic or entrepreneurial or tight-loose. It should hinge on skunk works or on management by walking around or perhaps on our old friend, management by objective.

All these approaches are efforts to overcome the perceived faults of hierarchy and find better ways to improve morale and harness human creativity. But the theorists’ belief that our changing world requires an alternative to hierarchical organization is simply wrong, and all their proposals are based on an inadequate understanding of not only hierarchy but also human nature.

Hierarchy is not to blame for our problems. Encouraged by gimmicks and fads masquerading as insights, we have burdened our managerial systems with a makeshift scaffolding of inept structures and attitudes. What we need is not simply a new, flatter organization but an understanding of how managerial hierarchy functions—how it relates to the complexity of work and how we can use it to achieve a more effective deployment of talent and energy.

The reason we have a hierarchical organization of work is not only that tasks occur in lower and higher degrees of complexity—which is obvious—but also that there are sharp discontinuities in complexity that separate tasks into a series of steps or categories—which is not so obvious. The same discontinuities occur with respect to mental work and to the breadth and duration of accountability. The hierarchical kind of organization we call bureaucracy did not emerge accidentally. It is the only form of organization that can enable a company to employ large numbers of people and yet preserve unambiguous accountability for the work they do. And that is why, despite its problems, it has so doggedly persisted.

Managerial hierarchy has never been properly described or adequately used.

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Hierarchy has not had its day. Hierarchy never did have its day. As an organizational system, managerial hierarchy has never been adequately described and has just as certainly never been adequately used. The problem is not to find an alternative to a system that once worked well but no longer does; the problem is to make it work efficiently for the first time in its 3,000-year history.

What Went Wrong...

There is no denying that hierarchical structure has been the source of a great deal of trouble and inefficiency. Its misuse has hampered effective management and stifled leadership, while its track record as a support for entrepreneurial energy has not been exemplary. We might almost say that successful businesses have had to succeed despite hierarchical organization rather than because of it.

One common complaint is excessive layering—too many rungs on the ladder. Information passes through too many people, decisions through too many levels, and managers and subordinates are too close together in experience and ability, which smothers effective leadership, cramps accountability, and promotes buck passing. Relationships grow stressful when managers and subordinates bump elbows, so to speak, within the same frame of reference.

Another frequent complaint is that few managers seem to add real value to the work of their subordinates. The fact that the breakup value of many large corporations is greater than their share value shows pretty clearly how much value corporate managers can subtract from their subsidiary businesses, but in fact few of us know exactly what managerial added value would look like as it was occurring.

Many people also complain that our present hierarchies bring out the nastier aspects of human behavior, like greed, insensitivity, careerism, and self-importance. These are the qualities that have sent many behavioral scientists in search of cooperative, group-oriented, nonhierarchical organizational forms. But are they the inevitable companions of hierarchy, or perhaps a product of the misuse of hierarchy that would disappear if hierarchy were properly understood and structured?

...And What Continues to Go Wrong

The fact that so many of hierarchy’s problems, show up in the form of individual misbehavior has led to one of the most widespread illusions in business, namely, that a company’s managerial leadership can be significantly improved solely by doing psychotherapeutic work on the personalities and attitudes of its managers. Such methods can help individuals gain greater personal insight, but I doubt that individual insight, personality matching, or even exercises in group dynamics can produce much in the way of organizational change or an overall improvement in leadership effectiveness. The problem is that our managerial hierarchies are so badly designed as to defeat the best efforts even of psychologically insightful individuals.

Solutions that concentrate on groups, on the other hand, fail to take into account the real nature of employment systems. People are not employed in groups. They are employed individually, and their employment contracts—real or implied—are individual. Group members may insist in moments of great esprit de corps that the group as such is the author of some particular accomplishment, but once the work is completed, the members of the group look for individual recognition and individual progression in their careers. And it is not groups but individuals whom the company will hold accountable. The only true group is the board of directors, with its corporate liability.

None of the group-oriented panaceas face this issue of accountability. All the theorists refer to group authority, group decisions, and group consensus, none of them to group accountability. Indeed, they avoid the issue of accountability altogether, for to hold a group accountable, the employment contract would have to be with the group, not with the individuals, and companies simply do not employ groups as such.

To understand hierarchy, you must first understand employment. To be employed is to have an ongoing contract that holds you accountable for doing work of a given type for a specified number of hours per week in exchange for payment. Your specific tasks within that given work are assigned to you by a person called your manager (or boss or supervisor), who ought to be held accountable for the work you do.

If we are to make our hierarchies function properly, it is essential to place the emphasis on accountability for getting work done. This is what hierarchical
systems ought to be about. Authority is a secondary issue and flows from accountability in the sense that there should be just that amount of authority needed to discharge the accountability. So if a group is to be given authority, its members must be held accountable as a group, and unless this is done, it is very hard to take so-called group decisions seriously. If the CEO or the manager of the group is held accountable for outcomes, then in the final analysis, he or she will have to agree with group decisions or have the authority to block them, which means that the group never really had decision-making power to begin with. Alternatively, if groups are allowed to make decisions without their manager's seal of approval, then accountability as such will suffer, for if a group does badly, the group is never fired. [And it would be shocking if it were.]

In the long run, therefore, group authority without group accountability is dysfunctional, and group authority with group accountability is unacceptable. So images of organizations that are more like symphony orchestras or hospitals or the British civil service are surely nothing more than metaphors to express a desired feeling of togetherness—the togetherness produced by a conductor's baton, the shared concern of doctors and nurses for their patients, or the apparent unity of the British civil service in India.

In employment systems, after all, people are not mustered to play together as their manager beats time. As for hospitals, they are the essence of everything bad about bureaucratic organization. They function in spite of the system, only because of the enormous professional devotion of their staffs. The Indian civil service was in many ways like a hospital, its people bound together by the struggle to survive in a hostile environment. Managers do need authority, but authority based appropriately on the accountabilities they must discharge.

Why Hierarchy?

The bodies that govern companies, unions, clubs, and nations all employ people to do work, and they all organize these employees in managerial hierarchies, systems that allow organizations to hold people accountable for getting assigned work done. Unfortunately, we often lose sight of this goal and set up the organizational layers in our managerial hierarchies to accommodate pay brackets and facilitate career development instead. If work happens to get done as well, we consider that a useful bonus.

But if our managerial hierarchical organizations tend to choke so readily on debilitating bureaucratic practices, how do we explain the persistence and continued spread of this form of organization for more than 3,000 years? And why has the determined search for alternatives proved so fruitless?

The answer is that managerial hierarchy is and will remain the only way to structure unified working systems with hundreds, thousands, or tens of thousands of employees, for the very good reason that managerial hierarchy is the expression of two fundamental characteristics of real work. First, the tasks we carry out are not only more or less complex but they also become more complex as they separate out into discrete categories or types of complexity. Second, the same is true of the mental work that people do on the job, for as this work grows more complex, it too separates out into distinct categories or types of mental activity. In turn, these two characteristics permit hierarchy to meet four of any organization's fundamental needs: to add real value to work as it moves through the organization, to identify and nail down accountability at each stage of the value-adding process, to place people with the necessary competence at each organizational layer, and to build a general consensus and acceptance of the managerial structure that achieves these ends.

Hierarchical Layers

The complexity of the problems encountered in a particular task, project, or strategy is a function of the variables involved— their number, their clarity or ambiguity, the rate at which they change, and, overall, the extent to which they are distinct or tangled. Obviously, as you move higher in a managerial hierarchy, the most difficult problems you have to contend with become increasingly complex. The biggest problems faced by the CEO of a large corporation are vastly more complex than those encountered on the shop floor. The CEO must cope not only with a huge array of often amorphous and constantly changing data but also with variables so tightly interwoven that they must be disentangled before they will yield useful information. Such variables might include the cost of capital, the interplay of corporate cash flow, the structure of the international competitive market, the uncertainties of Europe after 1992, the future of Pacific Rim development, social developments with respect to labor, political developments in Eastern Europe, the Middle East, and the Third World, and technological research and change.

That the CEO's and the lathe operator's problems are different in quality as well as quantity will come as no surprise to anyone. The question is—and al-
ways has been—where does the change in quality occur? On a continuum of complexity from the bottom of the structure to the top, where are the discontinuities that will allow us to identify layers of hierarchy that are distinct and separable, as different as ice is from water and water from steam? I spent years looking for the answer, and what I found was somewhat unexpected.

My first step was to recognize the obvious, that the layers have to do with manager-subordinate relationships. The manager's position is in one layer and the subordinate's is in the next layer below. What then sets the necessary distance between? This question cannot be answered without knowing just what it is that a manager does.

The managerial role has three critical features. First, and most critical, every manager must be held accountable not only for the work of subordinates but also for adding value to their work. Second, every manager must be held accountable for sustaining a team of subordinates capable of doing this work. Third, every manager must be held accountable for setting direction and getting subordinates to follow willingly, indeed enthusiastically. In brief, every manager is accountable for work and leadership.

In order to make accountability possible, managers must have enough authority to ensure that their subordinates can do the work assigned to them. This authority must include at least these four elements: (1) the right to veto any applicant who, in the manager's opinion, falls below the minimum standards of ability; (2) the power to make work assignments; (3) the power to carry out performance appraisals and, within the limits of company policy, to make decisions—not recommendations—about raises and merit rewards; and (4) the authority to initiate removal—at least from the manager's own team—of anyone who seems incapable of doing the work.

But defining the basic nature of the managerial role reveals only part of what a managerial layer means. It cannot tell us how wide a managerial layer should be, what the difference in responsibility should be between a manager and a subordinate, or, most important, where the break should come between one managerial layer and another. Fortunately, the next step in the research process supplied the missing piece of the puzzle.

### Responsibility and Time

This second step was the unexpected and startling discovery that the level of responsibility in any organizational role—whether a manager's or an individual contributor's—can be objectively measured in terms of the target completion time of the longest task, project, or program assigned to that role. The more distant the target completion date of the longest task or program, the heavier the weight of responsibility is felt to be. I call this measure the responsibility time span of the role. For example, a supervisor whose principal job is to plan tomorrow's production assignments and next week's work schedule but who also has ongoing responsibility for uninterrupted production supplies for the month ahead has a responsibility time span of one month. A foreman who spends most of his time riding herd on this week's production quotas but who must also develop a program to deal with the labor requirements of next year's retooling has a responsibility time span of a year or a little more. The advertising vice president who stays late every night working on next week's layouts but who also has to begin making contingency plans for the expected launch of two new local advertising media campaigns three years hence has a responsibility time span of three years.

To my great surprise, I found that in all types of managerial organizations in many different countries over 35 years, people in roles at the same time span experience the same weight of responsibility and declare the same level of pay to be fair, regardless of their occupation or actual pay. The time-span range runs from a day at the bottom of a large corporation to more than 20 years at the top, while the felt-fair pay ranges from $15,000 to $1 million and more.

Armed with my definition of a manager and my time-span measuring instrument, I then bumped into the second surprising finding—repeatedly confirmed—about layering in managerial hierarchies: the boundaries between successive managerial layers occur at certain specific time-span increments, just as ice changes to water and water to steam at certain specific temperatures. And the fact that everyone in the hierarchy, regardless of status, seems to see these boundaries in the same places suggests that the boundaries reflect some universal truth about human nature.

The illustration "Managerial Hierarchy in Fiction and in Fact" shows the hierarchical structure of
part of a department at one company I studied, along with the approximate responsibility time span for each position. The longest task for manager A was more than five years, while for B, C, and D, the longest tasks fell between two and five years. Note also that according to the organization chart, A is the designated manager of B, B of C, and C of D.

In reality, the situation was quite different. Despite the managerial roles specified by the company, B, C, and D all described A as their “real” boss. C complained that B was “far too close” and “breathing down my neck.” D had the same complaint about C. B and C also admitted to finding it very difficult to manage their immediate subordinates, C and D respectively, who seemed to do better if treated as colleagues and left alone.

In short, there appeared to be a cutoff at five years, such that those with responsibility time spans of less than five years felt they needed a manager with a responsibility time span of more than five years. Manager D, with a time span of two to three years, did not feel that C, with a time span of three to four, was distant enough hierarchically to take orders from. D felt the same way about B. Only A filled the bill for any of the other three.

As the responsibility time span increased in the example from two years to three to four and approached five, no one seemed to perceive a qualitative difference in the nature of the responsibility that a manager discharged. Then, suddenly, when a manager had responsibility for tasks and projects that exceeded five years in scope, everyone seemed to perceive a difference not only in the scope of responsibility but also in its quality and in the kind of work and worker required to discharge it.

I found several such discontinuities that appeared consistently in more than 100 studies. Real managerial and hierarchical boundaries occur at time spans of three months, one year, two years, five years, ten years, and twenty years.

These natural discontinuities in our perception of the responsibility time span create hierarchical strata that people in different companies, countries, and circumstances all seem to regard as genuine and acceptable. The existence of such boundaries has important implications in nearly every sphere of organizational management. One of these is performance appraisal. Another is the capacity of managers to add value to the work of their subordinates.

As I suggested earlier, part of the secret to making hierarchy work is to distinguish carefully between hierarchical layers and pay grades. The trouble is that companies need two to three times as many pay grades as they do working layers, and once they’ve established the pay grades, which are easy to describe and set up, they fail to take the next step and set up a different managerial hierarchy based on responsibility rather than salary. The result is too many layers.

My experience with organizations of all kinds in many different countries has convinced me that effective value-adding managerial leadership of subordinates can come only from an individual one category higher in cognitive capacity, working one category higher in problem complexity. By contrast, wherever managers and subordinates are in the same layer—separated only by pay grade—subordinates see the boss as too close, breathing down their necks, and they identify their “real” boss as the next manager at a genuinely higher level of cognitive and task complexity. This kind of overlayering is what produces the typical symptoms of bureaucracy in its worst form—too much passing problems up and down the system, bypassing, poor task setting, frustrated subordinates, anxious managers, wholly inadequate performance appraisals, “personality problems” everywhere, and so forth.

Layering at Company X

Companies need more than seven pay grades—as a rule, many more. But seven hierarchical layers is enough or more than enough for all but the largest corporations.

Let me illustrate this pattern of hierarchical layering with the case of two divisions of Company X, a
corporation with 32,000 employees and annual sales of $7 billion. As shown in "Two Divisions of Corporation X," the CEO sets strategic goals that look ahead as far as 25 years and manages executive vice presidents with responsibility for 12- to 15-year development programs. One vice president is accountable for several strategic business units, each with a president who works with critical tasks of up to 7 years duration.

One of these units (Y Products) employs 2,800 people, has annual sales of $250 million, and is engaged in the manufacture and sale of engineering products, with traditional semiskilled shop-floor production at Layer I. The other unit (Z Press) publishes books and employs only 88 people. Its funding and negotiations with authors are in the hands of a general editor at Layer IV, assisted by a small group of editors at Layer III, each working on projects that may take up to 18 months to complete.

So the president of Y Products manages more people, governs a greater share of corporate resources, and earns a lot more money for the parent company than does the president of Z Press. Yet the two presidents occupy the same hierarchical layer, have similar authority, and take home comparable salaries. This is neither coincidental nor unfair. It is natural, correct, and efficient.

It is the level of responsibility, measured in terms of time span, that tells you how many layers you need in an enterprise—not the number of subordinates or the magnitude of sales or profits. These factors may have a marginal influence on salary; they have no bearing at all on hierarchical layers.

Changes in the Quality of Work

The widespread and striking consistency of this underlying pattern of true managerial layers leads naturally to the question of why it occurs. Why do people perceive a sudden leap in status from, say, four-and-a-half years to five and from nine to ten?

The answer goes back to the earlier discussion of complexity. As we go higher in a managerial hierarchy, the most difficult problems that arise grow increasingly complex, and, as the complexity of a task increases, so does the complexity of the mental work required to handle it. What I found when I looked at this problem over the course of ten years was that this complexity, like responsibility time span, also occurs in leaps or jumps. In other words, the most difficult tasks found within any given layer are all characterized by the same type or category of complexity, just as water remains in the same liquid state from 0° to 100° Celsius, even though it ranges from very cold to very hot. (A few degrees cooler or hotter and water changes in state, to ice or steam.)

It is this suddenly increased level of necessary mental capacity, experience, knowledge, and mental stamina that allows managers to add value to the work of their subordinates. What they add is a new perspective, one that is broader, more experienced, and, most important, one that extends further in time. If, at Z Press, the editors at Layer III find and develop manuscripts into books with market potential, it is their general editor at Layer IV who fits those books into the press's overall list, who thinks ahead to their position on next year's list and later allocates resources to their production and marketing, and who makes projections about the publishing and book-buying trends of the next two to five years.

It is also this sudden change in the quality, not just the quantity, of managerial work that subordinates accept as a natural and appropriate break in the con-
tinuum of hierarchy. It is why they accept the boss's authority and not just the boss's power.

So the whole picture comes together. Managerial hierarchy or layering is the only effective organizational form for deploying people and tasks at complementary levels, where people can do the tasks assigned to them, where the people in any given layer can add value to the work of those in the layer below them, and, finally, where this stratification of management strikes everyone as necessary and welcome.

What we need is not some new kind of organization. What we need is managerial hierarchy that understands its own nature and purpose. Hierarchy is the best structure for getting work done in big organizations. Trying to raise efficiency and morale without first setting this structure to rights is like trying to lay bricks without mortar. No amount of exhortation, attitudinal engineering, incentive planning, or even leadership will have any permanent effect unless we understand what hierarchy is and why and how it works. We need to stop casting about fruitlessly for organizational Holy Grails and settle down to the hard work of putting our managerial hierarchies in order.

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