

rational and natural theories, which have generally opposed views of organizations, open systems theories can take either a rational or natural systems approach, but they look at the relationship between organizations and their settings, such as the labor market, competitors, the community, government, and the wider culture and society. These features of the external environment may be critical sources of ideas, standards, opportunities, resources, and constraints for the organization, all of which would be overlooked if one focused on the individual organization by itself as if it were closed off from the outside world.

These different approaches to the study of organizations are well-represented in the readings in this volume, as well as the controversies they have produced. Many of these controversies relate to a further distinction among theories, between those that take a relatively benign view of organizations and those that are critical of their influence on society. The benign view often focuses on what makes organizations effective, takes a managerial point of view, and sees few fundamental conflicts between the organization's rulers and its members or between the organization and the wider society. Critical approaches tend to see deep conflicts of interest between managers and workers and between the power of large organizations and the general interest. The organization's power and actions are viewed within the context of the broader social, economic, and political structure. In this view, organizations are tools not for achieving some common group purpose but for pursuing the particular interests of an individual, subgroup, or class (Fischer and Sirianni 1984; Perrow 1986). These contrasts are also well-represented in the readings that follow.

But whatever one's perspective, the significance of the subject matter is clear. Organizations affect people's lives. Everyone spends a lot of their time in organizations. They are an important building block of society, a pervasive feature of social structure. They affect the distribution of money, power, and happiness in society by their impacts on both their members and those outside the organization. Organizations can be efficient and inefficient, rationally ordered and incoherent. They are sources of income and income inequality, satisfaction and alienation, social cohesion and division, taxes for the public good, political advocacy for diverse viewpoints, and political influence for narrow interests. They can reinforce harmful social tendencies, such as discrimination, or help ameliorate them. They provide valued goods and services but can erect obstacles to the satisfaction of needs through bureaucratic rigidity, the promotion of materialism for its own sake, and degradation of the environment.

Understanding organizations as a goal in itself is worthwhile, as is the desire to use this knowledge to improve their performance. But understanding organizations is also a step toward understanding how modern society functions and how we can live better with organizations and possibly make them serve our ends more effectively, or at least understand better the problems to be faced (Gouldner 1954, p. 244f.).

PART I

ORGANIZATIONS AS RATIONAL SYSTEMS I

Classic Theories of Bureaucracy and Administration

A. Early Definitions of Organization and Management

B. Scientific Management and the Treatment of Labor

A. EARLY DEFINITIONS OF ORGANIZATION AND MANAGEMENT

Max Weber

The sociology of organizations begins with the work of the German sociologist Max Weber (1864–1920), whose work on bureaucracy was first translated into English in the late 1940s (Reading 1). Weber's position as the intellectual founder of the field is interesting because, although he wrote from a historical perspective and was mainly concerned with changing patterns of political authority and governmental organization, most subsequent research focuses on business organizations and has little interest in the kinds of historical comparisons that motivated Weber. Yet Weber's ideas remain a central contribution rich with implications, though not unchallenged by later writers.

Weber was a rational systems theorist who believed that bureaucracy was the most efficient form of organization and a pillar of modern society. Americans today do not usually think of bureaucracy as efficient. Indeed, European writers and popular opinion scorned the rigidity, pettiness, and excessive influence of their government bureaucracies as early as the late eighteenth century (Albrow 1970). However, Weber's belief in bureaucracy's technical superiority makes more sense when it is compared to previous forms of state administration, and especially when seen in light of the spectacular success and discipline of the Prussian civil service and army, which turned Germany into a major European power after their reorganization in the nineteenth century in response to Prussia's defeat by Napoleon in 1806 (Albrow 1970).

Weber compared modern bureaucratic authority to two other kinds of authority, charismatic and traditional. Charismatic authority is based on the unique personal qualities of an exceptional individual, such as a religious prophet or magnetic

political leader, rather than any established institutional position or office. The emergence of charismatic authority is unpredictable, and charismatics often oppose established rules and routines in favor of a leader's vision. Charismatic leaders can inspire their followers to impressive accomplishments, but because such people are rare and eventually pass from the scene, their achievements cannot be maintained in the long run unless their followers establish a more conventional, permanent organization and a stable mechanism for choosing a successor to leadership that does not depend on the unusual talent of a single individual. To outlast a charismatic leader, the group has to build an institution to replace the loose operations based on personal authority.

Authority in traditional political systems, such as monarchies, is based on long-standing and seldom questioned, often sacred, principles such as the hereditary superiority of nobles, religious position or status, or other reasons not necessarily related to one's ability to perform a role. Traditional authority has great stability—nearly all of human history has been lived under traditional authority systems—but also clear limitations, because it is not based on the technical qualifications or effectiveness of those in a position to make decisions.

In contrast to charismatic and traditional forms of authority, Weber described bureaucracy as a rational-legal form of authority. Bureaucracies are governed by a set of impersonal rules and procedures that are applied universally, without regard to the personal characteristics of particular individuals, and rationally designed to serve some broader purpose. Bureaucracies employ technically qualified, full-time experts assigned to unique areas of responsibility in a logical division of labor. There is a hierarchy of superiors and subordinates, and access to positions is based on knowledge and seniority. Subordinates obey superiors at work because they occupy an office with specific, defined, and limited rights, not because of any personal characteristics the office holder possesses. The office holder's personal property is clearly distinguished from that belonging to the organization, rather than intermingled with it, and there is extensive use of written documents and systematic record keeping. Today, such principles are usually taken for granted, but they represented real breakthroughs in the rational administration of organizations.

The efficiency of bureaucracy can be better understood if it is contrasted further with traditional forms of authority. In traditional systems, hierarchical position was not based on competence, but some combination of heredity, kinship, religious status, personal loyalty, or friendship connection. Office holders served at the whim of superiors. They were often "amateurs," who held their jobs on a part-time basis and had no particular training for their work. The division of labor among different functions was often haphazard, with overlaps and gaps in authority and responsibilities. Decisions were based on tradition or were arbitrary, depending on the individual making the decision rather than on a logical and consistent application of principles. Record-keeping systems were primitive. Office holders often had property rights over the resources provided to them by the organization, such as the right to sell their position or rights to a share of tax receipts in areas under their administration. This mixing of personal and official property often gave officials a motivation to overtax the ruler's subjects and the resources to operate independently of the ruler's purposes. This mixing also made rational accounting difficult, because it was hard to keep control over resources or distinguish what

belonged to the organization and to the officials holding positions within it. In this context, it is easy to see why Weber would see rationality and efficiency as defining features of modern bureaucracy. A number of these contrasts also hold for the comparison of bureaucratic and charismatic authority, which has an even more personalistic, fluid, and unstable quality than traditional authority.

For Weber, the use of expert specialists, impersonal norms, written documents, and the discipline of a command hierarchy give bureaucratic organizations a reliability, regularity, and precision in the execution of tasks that no other form of authority equals. In a bureaucracy, each member repeatedly executes a particular function according to prespecified standards in the service of a larger collective goal. It is not surprising that Weber famously described bureaucracy as a giant human machine, symbolizing not only its efficiency, but also its dehumanizing potential; and he also believed its further extension into all areas of social life was inevitable.

Weber believed modernity meant rationality and the spread of a scientific approach to living, and he saw bureaucracy as the embodiment of these principles. By dividing tasks into logical pieces and parceling them out to full-time specialists, bureaucracies were ideally suited to accomplishing complex jobs of all sorts on a large scale. Modernity meant the spread of bureaucracy as the scale of tasks and the rationality with which they were approached increased. Not only the government civil service, but also churches, political parties, interest groups, armies, hospitals, charities, voluntary associations, business enterprises, indeed all large organizations become increasingly bureaucratic insofar as they require continuous administrative work by qualified professionals. Even intimate spheres such as the family are affected by government child welfare regulations, schools, and the social service bureaucracy. Weber predicted that socialist economies would be even more bureaucratic than capitalist systems, despite their utopian aspirations, because a planned economy requires collection of more technical knowledge than market economies and tries to exercise more conscious and directive control over the economy through government planning—a perceptive insight considering that Weber died before the Soviet system took shape.

Though developed as part of a comparative historical investigation, Weber's contrast between bureaucratic rationality and nonbureaucratic principles of organization applies to many contemporary situations. The separation of personal and organizational property would seem an obvious distinction today, but corporations and government agencies have had to develop increasingly strict rules regarding the value of gifts that purchasing managers and others with power to award contracts may accept from suppliers or potential contractors. If someone runs a very small business as an avocation and it grows, then at a certain point he or she will have to set up a business account separate from his or her personal finances to keep clear track of the business profits. The owner will also face the problem of how to choose a successor if the company is to continue to operate after current owner-manager retires or dies, just like a charismatic or other person-centered collectivity.

Succession is a problem for nonprofits as well. Media reports regularly describe exceptionally successful social service organizations that generate excitement and hope that their achievements can be replicated elsewhere, but that owe their success to an unusually energetic and charismatic leader rather than to

a standard formula. Because the Reform Party did not solve the succession problem when its charismatic leader withdrew from active participation, the party fizzled into irrelevance just eight years after having received the largest share of votes of any third party in the twentieth century in 1992. Authoritarian governments run by strong leaders on a personalistic rather than a rational-legal basis face similar succession problems, but in their case the failure to plan for a successor can result in destabilizing coups and civil wars.

Both personalistic political organizations and family businesses may be tempted to fall back on traditional rather than technically rational principles to solve staffing problems by using kinship or nepotism rather than ability or merit to fill positions. These represent contemporary contrasts between charismatic or traditional authority and bureaucratic principles, which prescribe professional management and an impersonal system of rules, such as accounting and succession procedures.

Weber placed such a great emphasis on rationality, precision, and calculation in bureaucratic administration and modern life that the contemporary reader might find his assertions puzzlingly obvious. However, these principles also have relevance for both the recent past and present. Around the time that Weber wrote about the spread of bureaucracy, one of the largest U.S. corporations, General Motors, entered a crisis that would define its future. William Durant, the founder and then-president of GM, was a freewheeling, nineteenth-century style entrepreneur who had little inclination for standard rules or procedures and who ran the business with little more than his own intuition. In his memoirs, Alfred Sloan, another GM executive, described his impressions of his boss:

I was of two minds about Mr. Durant. I admired his automotive genius, his imagination, his generous human qualities, and his integrity. . . . But I thought he was too casual in his ways for an administrator, and he overloaded himself. Important decisions had to wait until he was free, and were often made impulsively. (Sloan 1963, p. 25)

Sloan gave an example of Durant's style. Durant was planning a new office building in Detroit that was to be the largest in the world and named the Durant Building, though later it was renamed the General Motors Building. Both Sloan and Durant worked out of a New York City office at the time. Sloan wandered into a planning meeting one day and informally suggested a suitable site for the new building, giving a number of reasons:

I mentioned these things to Mr. Durant, whereupon he said that the next time we went to Detroit we would all go up and take a look at [the site], which we did. . . . He started at the corner of Cass Avenue, paced a certain distance west. . . . Then he stopped, for no apparent reason, at some apartment houses. . . . He said that this was about the ground we wanted, and turned to me and said, "Alfred, will you go and buy these properties for us and Mr. Prentis [the GM Treasurer] will pay whatever you decide to pay for them." I wasn't in the real-estate business. I didn't even live in Detroit. (Sloan 1963, p. 26)

The events Sloan described occurred in 1919. Though this project was successful, by 1920, GM's creditors and investors forced Durant to resign as president of the company he had founded a dozen years earlier. A chaotic expansion plan had collided with a downturn in the economy, and Durant was discovered using his

personal wealth and credit to try to prop up GM's stock price. This tied the organization's success to Durant's personal fortunes more than GM's backers found comfortable. Durant was successful at founding a very large corporation, but did not know how to organize or operate it on a logical basis. Rationality in business decision making was not always an obvious or standard matter in American corporations, even by 1920.

The problem is repeated today in many small- and medium-size businesses that grow larger. They often face difficulties when informal procedures and intuitive decision making by family members or other nonprofessionals are no longer adequate to solve new and larger problems. Leaders of the organization then face the need to formalize procedures, add more structure to their operations, and hire outside expertise they did not need when problems were simpler. The organization moves away from a family or informal basis and toward a more bureaucratic basis (see Reading 24).

Sloan, who became president of GM shortly after Durant's resignation, reorganized the company along lines that set the standard for the modern American corporation. Though many would come to see his creation as too rigidly bound to bureaucratic rules and procedures in a later, less stable era (see Reading 25), there is no doubt that the company could not have continued to operate in the personalistic and haphazard fashion of Durant.

Another key insight from Weber's work actually emerges from one of its flaws or ambiguities. Sometimes, Weber suggests that bureaucratic authority is based on position in the hierarchy of command, but other times he suggests it is based on expert knowledge; indeed, Weber considered them closely related so that those making most decisions had highly developed expertise. Weber did not clearly distinguish managers, who give directions, from professionals, who apply technical knowledge. In the modern corporation, this difference is reflected in the difference between "line" and "staff" departments. Line management forms a clear hierarchy of authority from the chief executive to division, department, or plant managers and first-line supervisors, and is responsible for the organization's core activities, such as production. Staff provides advice, support, and control in areas such as research and development, personnel, and accounting. Weber's failure to distinguish the two kinds of bureaucratic authority is notable, because the line-staff distinction originated in the Prussian army's use of a general staff to advise commanders on technical military matters (Wren 1987, p. 149).

More important, these two kinds of authority are often in tension with one another in modern organizations, as subsequent sections will show. Line management almost always has more formal and informal power in most organizations, whereas staff has more technical expertise and can control certain levers of power as a result, which can lead the two kinds of functions to conflict (see Reading 29). An exception to the generally inferior position of staff is organizations whose principal outputs are professional services, such as universities or hospitals, in which case there is a situation of plural authority, and a large part of the administrators' job is serving the professionals. Because internal relations among professionals are usually more egalitarian and collegial, some critics of bureaucratic organizations see professional organizations as an alternative model for organizations in general (Heckscher and Donellon 1994). Even though Weber tended to conflate hierarchical and expert authority, subsequent sociologists who recognized the distinction have used it as a fruitful basis for understanding a

number of aspects of organizational life. Also, While Weber himself did not treat it in detail, he recognized that the more egalitarian *collegial* or *peer group* method of organization, such as one finds in parliaments, business or professional partnerships, and cooperatives, is another important form of legitimate authority distinct from charisma, tradition, and bureaucracy.

Another area in which Weber contributed to the sociology of organizations is in his view of the relationship between bureaucracy and democracy. Weber's colleague Robert Michels (see Reading 17) believed that democratic organizations, like trade unions or political parties, invariably develop into oligarchies as they grow larger and become more bureaucratic. The leadership and staff become more professional, the membership becomes less knowledgeable about how the organization is run, and the distance between leaders and rank-and-file members widens. By contrast, Weber believed bureaucracy and democracy were complementary, because democracy requires equality before the law and bureaucratic principles include the uniform application of rules and the use of meritocratic qualifications, rather than social status, to recruit office holders. The latter claim was a bit paradoxical, however, because aristocrats staffed the Prussian bureaucracy in Weber's time. Weber also recognized that professional civil servants could undermine the aims of democratically elected political leaders because of their insider knowledge and permanent status.

Nevertheless, one can see how bureaucracy and democracy support one another when one considers the recent expansion of rights and legal protections for disadvantaged groups. For example, occupational health and safety regulations, rules against sexual harassment, and government regulations to protect the well-being of human subjects participating in university research all require the expansion of formal rules or laws, some kind of enforcement agency to monitor and sanction violators, often some kind of certificate verifying compliance, and some kind of new function or department within the regulated organization to ensure compliance, all of which expands the scope of bureaucracy. Bureaucracy is a feature of most types of regulation, including the extension of social protections to historically under-represented groups. However, as will be apparent in the Michels selection (Reading 17) and elsewhere, the expansion of bureaucracy can stifle democracy as well. Weber's insight was to show that in some respects the two are complementary.

Finally, though Weber saw bureaucracy as efficient, modern, and compatible with democracy, he did not view the growth of bureaucracy as an unmixed blessing. In the reading that follows, Weber speaks of bureaucracy in terms of the "dominance of a spirit of formalistic impersonality . . . without hatred or passion and hence without affection or enthusiasm." Elsewhere, Weber wrote that bureaucratic rationality "reduces every worker to a cog in this bureaucratic machine and, seeing himself in this light, he will merely ask how to transform himself into a slightly bigger cog. . . . The passion for bureaucratization drives us to despair" (Weber 1978, p. lix). Clearly, Weber was ambivalent about the consequences of bureaucracy.

Henri Fayol

Henri Fayol (1841–1925) is the second classic theorist of administration and, like Weber, a rational systems theorist. Also similar to Weber, Fayol's main work, published in 1916, was not translated into English until the late 1940s, though some of his American and English followers began promoting his ideas in the

1930s. Unlike Weber, Fayol was not an academic but a mining engineer who became chief of a large French coal-mining and steel company. Toward the end of his career, Fayol formulated general principles of management or "acknowledged truths" that he thought applicable to all large organizations, public and private. As a practitioner as well as a thinker, Fayol did not have the same kind of misgivings regarding bureaucracy as Weber had.

Fayol described the bureaucratic organization in terms similar to Weber's. A division of labor and specialization of function allows administrators to develop specialized knowledge and proficiency in their tasks. A chain of authority ensures coordination, discipline, and constancy of purpose. As one of Fayol's followers, Luther Gulick, reasoned, work, once divided, needs to be coordinated and knit back together according to a central design by a "single directing executive authority" (Gulick and Urwick 1977, p. 6). Individuals and departments need to subordinate their interests to those of the organization. Top management provides a unified sense of direction for the organization, but circumstances will dictate the degree to which discretion and decision-making must be centralized in the hands of superiors or decentralized to subordinates.

Above all, Fayol emphasized the need for order, discipline, and rationality, citing the military as a positive example. Fayol wrote that the function of management is to plan, organize, command, coordinate, and control. The language has a highly rationalistic tone, as do Fayol's definitions: "To prepare the operations is to *plan* and *organize*; to see that they are carried out is to *command* and *coordinate*; to watch the results is to *control*" (Fayol 1937, p. 103 emphasis in original). Like Weber, Fayol also spoke of each part of an organization as "only a cog in a big machine, all of whose parts must work in concert" (Fayol 1949: [1916]), but unlike Weber, he seemed less troubled by the possible human implications of this view.

Still, Fayol believed that management should encourage social harmony in the organization by being fair to workers, concerned for their welfare, and competent enough to elicit their "loyalty and obedience." Indeed, Fayol had reason to consider all these to be other aspects of organization, if only secondarily. He referred in the reading to the "great strikes of miners, railwaymen, and civil servants which, in these latter years, have jeopardized national life at home and elsewhere" (Fayol 1949 [1916]). In fact, strike activity in France had increased markedly after the turn of the century, around the time Fayol was writing (Shorter and Tilly 1974, pp. 361ff.).

Nor were problems restricted to employers and workers. Fayol looked favorably on the French army and believed it embodied his principles of organization (Fayol 1937, p. 110). However, in 1917, thousands of French soldiers mutinied when their commanders, safely removed from the battle lines, ordered their troops to make yet another in a series of suicidal and fruitless mass attack on German trench positions. Commanders regained control over their mutinous troops only after conceding to their demands and then executing some participants to serve as examples to the rest (Smith 1994). Here is an example, close to home, of leaders whose lack of ability and sensitivity did not inspire the confidence and loyalty of their subordinates, though they were able to recognize their mistakes and respond to dissent from below at some point. Not all countries were as lucky. Comparable, more rigidly enforced policies prompted similar mutinies by Russian soldiers that contributed to the revolution that brought the Bolsheviks to power. However, Fayol generally saw things from a managerial perspective,

and these specific examples of leadership failings did not find their way into his writings.

Nevertheless, Fayol contributed to the technical understanding of organizational structure in several ways. He recommended that no subordinate receive orders from more than one superior, as this will lead to confusion, disorder, and ill will when the directives of different supervisors conflict. Fayol made the first strong arguments for the use of organization charts to clarify lines of authority and communication and to demarcate areas of responsibility. Fayol introduced the distinction between line and staff into the study of organizations, recommending that staff perform the long-term research that operating management does not have time to conduct. He observed that the number of subordinates one could supervise effectively, known as *span of control*, depends on the complexity of the subordinates' work. His recommendation that managers supervise no more than six subordinates, whereas foremen can supervise 15–30, is still influential today. Unlike Weber, Fayol criticized excess use of paperwork. He suggested that managers focus on broad issues of goals and strategies rather than immersing themselves in detail. A related contemporary principle, derived from Frederick Taylor (see below), advises managers to delegate all regular business to subordinates and focus on deviations or exceptions to routine only (Wren 1987, p. 114).

As with Weber, many of Fayol's principles and those of his followers are taken for granted today, but some carry deeper implications than might be recognized at first sight. Specialization or division of labor may seem mundane and obvious at first glance, but is important to understanding social stratification, because once individuals do different things, they may be differently valued. This is recognized in Michels' work and the literature on alternatives to capitalist hierarchy (see Readings 17, 34, and 35).

Gulick made Fayol's connection between the division of labor, inequality, and hierarchy explicit. People differ in skills and aptitudes, and specialization leads to greater proficiency than if everyone performed the entire range of jobs in an office or factory; however, specialization leads to coordination problems and the possibility that the central purpose or overall task will fade from view as each person concentrates on his or her narrow function. For Gulick, the solution was management; that is, a specialist in planning, coordinating, and supervising who has the knowledge and authority to ensure that the different individuals and parts of the organization are working toward the common goal. From the need for a division of labor, Gulick deduces the necessity of hierarchy and a stratum of managerial specialists (Gulick and Urwick 1977 [1937]). By contrast, others outside the rational systems tradition believe that inequalities of income and power in bureaucratic organizations represent political forces, rather than efficiency concerns or technical necessities.

Both Weber and Fayol restricted their attention to the formal aspects of organization. Organizations are self-consciously designed tools used to attain specific goals, and the questions they address are the proper design of organizational structure and rules. A certain organizational blueprint meant increased efficiency.

Not long after the works of Weber and Fayol were translated into English, American sociologists began to offer an alternative view. Robert Merton (1957) was the first to challenge Weber's emphasis on the efficiency of bureaucracy. Reflecting the commonsense view that bureaucracies tend to be rigid, Merton tried

to explain the reasons for this rigidity. In order to perform reliably, bureaucracies require their members to adhere strictly to rules, but this leads members to treat the rules as ends in themselves. Because conformity is clearly rewarded in the organization's rule book while departures from the rules put an official in uncharted waters, officials have a positive incentive to be cautious and refuse to make exceptions. Officials also derive their professional identity from consistent application of the established rules, irrational as that may be sometimes. However, another source of inflexibility is the norm of impersonality, which requires an official to treat individual cases according to an equal standard and which we might view as more justified.

Merton's work is only one of the first to engage the large question of the merits of the bureaucratic model, which is a central debate throughout history of organization studies.

B. SCIENTIFIC MANAGEMENT AND THE POSITION OF LABOR

Weber and Fayol discussed organizational structure and functioning from the perspective of managers and civil servants. Another classic rational systems thinker, Frederick Winslow Taylor (1856–1915), is best known for his views on how to organize factory work and manage blue-collar workers. Taylor came from an affluent family in suburban Philadelphia and made the unusual decision to drop out of Harvard to become a machinist apprentice. Taking a job at Midvale Steel as a common laborer, Taylor rose to chief engineer within six years, earning a mechanical engineering degree along the way. In his different positions at Midvale, Taylor experimented with methods to improve output and developed a method and philosophy later called *scientific management*. Around the turn of the century, he became a business consultant and began publishing his ideas, which quickly found a wide audience. Until his death, Taylor promoted scientific management with missionary zeal, and he became the center of an efficiency movement, even craze, throughout United States and within international industry, teaching courses in scientific management during the early years of the Harvard Business School (1909–1914; Wren 1987). Although few businesses applied Taylor's principles exactly as he prescribed, his practical influence on organizations was enormous, but also controversial.

Large-scale factories first began to eclipse small-scale craft production in the nineteenth century, but management techniques did not always change as rapidly, as is clear from Durant's performance at GM as late as 1920. On the shop floor as well as in the office, knowledge, rules, and procedures were relatively unsystematic, but becoming more precise and methodical—a process Weber called *rationalization*.

Above all, Taylor wanted to transform the idiosyncratic work practices he first observed at Midvale into what he considered a rigorous science of work through observation and measurement. Taylor saw that management permitted each worker to perform his tasks differently, some of these variations reflecting previous craft practices and others merely the individual method of the worker. Neither management nor the worker knew which method was the best in terms of efficiency and minimizing strain on the human body.

Moreover, compared to management, workers had more intimate knowledge of the tools, methods, and materials with which they worked, and they used this knowledge to control their work pace. Small work groups used peer pressure to enforce a moderate work pace on all their members, a practice known as *restriction of output*. They feared that if anyone worked too hard at any time, management would require all of them to work to that standard all the time, a *speed-up*, without any increase in pay. This practice was known as *rate cutting*, because those paid by the piece would now be paid a lower rate per unit produced. Issues of restriction of output and conflicts over appropriate effort levels were to arise repeatedly in both the history of American capitalism and the literature on organizations (see Readings 7, 8, 12, 15, and 30). Taylor recognized an important fact about all organizations: If one works alone, the problem of work discipline is only one of self-discipline; but in a cooperative or collective work process, there is a problem of control or how to ensure that other people will do what you want them to do, sometimes known as the *principal-agency problem* (see Reading 21).

Taylor was determined to eliminate restriction of output and break all worker resistance to management control of work methods and pace. Taylor saw his mission as recapturing knowledge and control of the production process from the workers for management by using the scientific method. He interviewed and observed workers, conducted controlled experiments to determine the most efficient techniques and maximum output levels, and devised detailed work rules and wage incentives to enforce those methods and production targets. In order to gather the necessary information, Taylor had workers perform their jobs using different methods, and he observed and timed their every movement in detail, a procedure known as *time and motion study*. In this fashion, Taylor determined what he thought was the one best way a job should be performed. Until this time, engineers had standardized only physical inputs; now they would standardize the human inputs.

Workers would work in rigid conformity to the prescribed method and would be expected to meet the output quotas that were determined to be feasible under this system. Taylor believed workers would not feel more tired, because the experiments were designed to find the procedure that imposed the least strain on the human body. To use a contemporary phrase, Taylor believed that people worked "smarter not harder" when they used the best methods devised by scientific management.

Taylor also believed that group life exerted a negative influence on workers' effort norms and that management should divide the work force and bargain with workers individually. Individuals would be paid an individual incentive wage based on their ability to meet or exceed output targets as a way to break the power of peer pressure to restrict output. Taylor believed that scientific management was in the best interests of both workers and management, because it eliminated disputes over the distribution of the economic pie by raising productivity and expanding the pie. He warned managers not to jeopardize reforms by cutting rates and confirming the fears that led workers to restrict their output. Even if workers were initially resistant to changing their accustomed behavior, he believed that they would embrace the new methods and work more diligently when they saw their incomes rise.

Weber, Fayol, and Gulick all wrote about the importance of the division of labor, but no one carried the principle further than Taylor. As a consequence of

his techniques, workers who used to perform whole tasks, such as craft workers, found their jobs subdivided into narrow, simple tasks with a separate individual assigned to each. Perhaps the best illustration of this principle is the substitution of assembly lines and semi-skilled workers in the automobile industry for the previous hand-made methods of auto production involving predominantly craft workers (Womack, Jones, and Roos 1990).

The division of labor also dictated that all planning functions previously performed by craft or other workers be transferred to growing industrial engineering departments in the managerial bureaucracy, because Taylor believed workers lacked the time, expertise, and motivation required to conduct work experiments. Workers lost all discretion and now simply followed management's orders, and all planning was to come from above. If the organization were compared to a human body, management would be the brains and workers the hands. This philosophy continued to dominate U.S. manufacturing until the early 1980s, when managers began to rethink the idea that "workers should check their brains at the door."

Taylor and his followers also extended scientific management beyond the factory floor. Taylor developed methods of cost accounting that rationalized existing systems of record keeping, quite apart from labor management. One of his followers, Henry Gantt, also developed charts to track output and costs. William Leffingwell applied Taylor's principles to clerical work and office management. Certain kinds of routine white-collar work, such as insurance claims processing, were often organized along factory lines, and similar work today, such as data entry and telephone call centers, is often still organized along scientific management principles. Lillian Gilbreth applied scientific management to home economics and wrote such books as *Management in the Home: Happier Living Through Saving Time and Energy* (1955). Her husband Frank, a colleague of Taylor's, applied scientific management to his personal life, such as finding ways to reduce his shaving time by seventeen seconds by using two brushes to lather his face (Wren 1987). However, most of Taylor's influence in organization studies relates to his treatment of labor.

Taylor believed that workers would not mind the restructured jobs even if they were dull, repetitive, and stripped of all decision making, because the tasks would involve less physical strain and because workers could make more money than they would earn using the existing, less productive work methods. Having spent many years on the shop floor, Taylor considered himself to be a friend of the worker, though not of organized labor. He wrote during a time of labor agitation, high strike rates, and socialist politics, and he believed his methods would solve management-worker conflicts and inaugurate an era of industrial peace and cooperation.

The reality was quite a bit more complex. Speed-ups and rate cutting were common in manufacturing before scientific management and, although Taylor criticized the practices as fostering mistrust, employers found his method of time and motion study ideally suited for just this purpose of instituting speed-ups and cutting rates. After industrial engineers or efficiency experts schooled in Taylor's methods visited an employer, workers might find themselves working considerably harder for little or no extra pay. Workers' discontents with scientific management led to a number of well-publicized strikes and a congressional investigation during Taylor's lifetime. Many came to view Taylorism as a management ideology and a tool to control labor, output levels, and work pace.

Within social science, Harry Braverman is the sharpest critic of Taylor's influence on work and organizations (Reading 3). Braverman views Taylorism as a management device to wrest power from workers rather than merely as a neutral technique for enhancing efficiency. The philosophy of subdividing work into narrow tasks and rigidly separating planning from execution eliminates the need for scarce craft skills while turning meaningful work into alienating labor. Inequality also grows when managers substitute cheaper workers for better-paid skilled labor. The purpose of scientific management, in Braverman's view, is to lower labor costs, increase worker effort, limit workers' autonomy, and enhance management control. Braverman argues that the division of labor as currently practiced is not a technical requirement, as Gulick, Taylor, and managers would argue, but really an artificial means of denying workers a wider knowledge of the production process and guaranteeing a role for capitalists as integrators of the narrow jobs that they have consciously created by dividing unified craft work into small, unskilled pieces.

Braverman and others subscribing to de-skilling theory view Taylor's influence on capitalist management as pervasive and negative, not simply in the early twentieth-century factory but also in modern manufacturing, clerical, service, and professional work, in which there is a constant tendency to simplify tasks and replace skilled workers with less skilled workers (Braverman 1974; Garson 1988). However, others view this as a great exaggeration of Taylor's influence and do not believe that the trend in modern economies has been one of polarization between a small class of owners and managers, on the one hand, and a large class of de-skilled, poorly paid workers, on the other (Attewell 1987; Nelson 1995).

Taylor even has defenders who argue that his work benefited some workers. Modern industrial engineering considers Taylor to be the father of ergonomics, which is the science of arranging things people use so that the least strain is put on the human body. However, time and motion study for the purpose of setting output standards earned him few friends among workers, and even some of Taylor's defenders acknowledge that employer rate cutting and worker hostility were common in practice (Nelson 1995). Nevertheless, most organizational researchers would agree as a general principle that people within an organization, including managers, can gain power over others by hoarding knowledge rather than sharing it to make others dependent on them and create the sense that they are indispensable. The narrow and restrictive approach to structuring job tasks and their perceived dehumanizing character have also been recurring sources of discontent (see Readings 9-12, 15, 30, 34, and 35). Even Taylor wrote disparagingly of the level of intelligence required to perform the jobs he designed.

Like all rational systems theorists, Taylor believed that a correctly designed system could write many of the human and social dimensions of organizations out of the equation. With the proper management blueprint, organizations as artificial creations could run of themselves like well-oiled machines. For Taylor, an optimal work system required simply the correct physical layout of the work environment, determination of the workers' proper bodily motions, and the right monetary incentives to ensure employees would work to their physical potential. However, Taylor never really came to terms with the management bias embedded in his philosophy and how it affected the quality of the work lives of those who had to work under his system. Indeed, subsequent generations of managers would find the human element rarely proved so simple to control as Taylor supposed.

1

BUREAUCRACY AND LEGITIMATE AUTHORITY

MAX WEBER

III

THE TYPES OF LEGITIMATE DOMINATION

I. THE BASIS OF LEGITIMACY

2. The Three Pure Types of Authority

There are three pure types of legitimate domination. The validity of the claims to legitimacy may be based on:

1. Rational grounds—resting on a belief in the legality of enacted rules and the right of those elevated to authority under such rules to issue commands (legal authority).

2. Traditional grounds—resting on an established belief in the sanctity of immemorial traditions and the legitimacy of those exercising authority under them (traditional authority); or finally,

3. Charismatic grounds—resting on devotion to the exceptional sanctity, heroism or exemplary character of an individual person, and of the normative patterns or order revealed or ordained by him (charismatic authority).

In the case of legal authority, obedience is owed to the legally established impersonal order. It extends to the persons exercising the authority of office under it by virtue of the formal legality of their commands and only within the scope of authority of the office. In the case of traditional authority, obedience is owed to the *person* of the

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