The Evolution of Management Thought

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History rarely provides a full measure of people during their lifetimes. Epitaphs are often prematurely written, and succeeding events bring newfound appreciation to previously unrecognized accomplishments. Such is the case with the two individuals whose contributions are the focus of this chapter. Both lived during the late nineteenth and the early twentieth centuries, both wrote during the scientific management era, both were Europeans, and both made lasting contributions to the evolution of management thought. One was a practicing manager and one an academician; one was trained in the physical sciences, the other in the social sciences; and neither was accorded the full measure of his contributions until some decades after his death. Henri Fayol, a French manager-engineer, was the first writer to advance a formal statement of management elements and principles. Max Weber, a German economist-sociologist, addressed the more fundamental issue of how organizations should be structured. Both Fayol and Weber sought to combine theory with practice. Their ideas have influenced succeeding generations of managers and scholars and, even today, continue to significantly influence managerial thinking.

Henri Fayol: The Man and His Career

Jules Henri Fayol (1841–1925) was born in Constantinople (now Istanbul, Turkey). His father was an engineer fulfilling his military service obligation by supervising construction projects under an agreement between France and Turkey.

Henri’s parents, André and Eugénie Cantin Fayol, returned to France after André completed his military service. The family lived in La Voulte, where Henri received his elementary education. André worked as a superintendent at iron foundries in Le Pouzin and Le Teil, near La Voulte. Henri attended a polytechnic school in Valence, where he graduated from the *Lycée Impérial* (Imperial High School) in 1858. Henri followed in his father’s footsteps, entering the National School of Mines at Saint Étienne at age seventeen to become a mining engineer. He graduated in 1860 and went to work at the Commeny coalfield in central France. The coalfield was owned by the Société Boigues, Rambourg and Company, a limited partnership (*société en commandité*) that also owned steel mills at Fourchambault and Torteron, a forge at d’Imphy, foundries at Fourchambault and Montlucon, and an iron mine at Berry. Following the death of several partners in 1874, Boigues, Rambourg and Cie was reorganized as Commeny-Fourchambault (Comambault), a joint-stock company (*société à nomyme*).  

From 1860 until 1866, Fayol worked as an engineer and made notable advances in the technique of fighting underground coal fires. His efforts were rewarded with a promotion to manager of the Commeny coalfield at age twenty-five; six years later, he was placed in charge of several colliers. In 1888, Comambault was in dire financial straits: no dividends had been paid since 1885, its Fourchambault and Montlucon facilities were losing money, and the coal deposits at Commeny and Montvicq were nearing depletion. This same year, Fayol was named Comambault’s managing director (chief executive officer) and charged with revitalizing its operations. He closed the foundry at Fourchambault and centralized production at Montlucon to gain economies of scale. He acquired new coal deposits at Brassac and Decazeville and iron reserves at Joudreville. With the assistance of Joseph Carlioz, who was in charge of Comambault’s commercial department, Fayol integrated Comambault backward to mine coal and iron ore and forward to smelt the iron into steel and to sell both the mined coal and raw steel. Fayol established research facilities...
to advance Comambault’s technological capacity; entered into alliances with or acquired other firms; opened new mills to expand Comambault’s geographical base; hired staff specialists in research, manufacturing, and selling; and, to gain a competitive advantage, repositioned Comambault as a supplier of specialty steels.

Although his training was in engineering, Fayol realized that managing a geographically dispersed company with ten thousand employees required skills other than those he had studied. He viewed management as more than devising systems and methods for increasing throughput (as it had been for scientific management). For Fayol, management involved all the activities associated with producing, distributing, and selling a product. A manager needed to be able to formulate plans, organize plant and equipment, deal with people, and much more. Engineering school had never taught such skills.⁵

From his experiences as a general manager, Fayol began to develop his own ideas about managing.⁶ Beginning in his early days as a mining engineer at the Commentry coalfields, Fayol had kept notes on events that had affected mine output. For example, as early as 1861 he observed that all work had to be stopped because a horse working in the St. Edmund mine fell and broke its leg. A replacement draft horse could not be secured in the absence of the mine’s manager, and the livery stable-keeper had no authority to act on his own.⁷ Fayol’s resolution of this impasse was not a result of his technical training, but the managerial insight that responsibility and authority must be coequal or delays and disorder would result.

Foreshadowing modern thinking on work groups, Fayol organized miners into self-selected teams. This increased group cohesiveness and, in turn, reduced employee turnover. Moreover, work-group output increased as the teams refused to accept inferior members. Anticipating the job-redesign movement by some fifty years (see Chapter 15), Fayol also recognized that some jobs could be enlarged to relieve monotony and enhance skill levels. When managing at Commentry, he returned the responsibility for reinforcing mine tunnels (so that a tunnel’s walls and roof would not collapse) to the miners rather than use timbering crews.⁸

Speaking at the 1900 International Mining and Metallurgical Congress, Fayol expressed the belief that: “All employees in an enterprise participate to a greater or lesser degree in the administrative function...[and] have occasion to exercise their administrative faculties and be noticed for them. [Those] who are particularly

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talented can climb from the lowest rung to the highest levels of the hierarchy of an organization.” In this simple statement, Fayol was beginning to distinguish between managerial ability and technical knowledge. By 1908, Fayol’s thinking had evolved further. Addressing the Society of the Mineral Industry, he noted that the effect of management on business activities was not fully understood and that technical expertise “can be completely destroyed by defective administrative procedures.” Building on his 1900 theme, he further observed that “a leader who is a good administrator but technically mediocre is generally much more useful to the enterprise than if he were a brilliant technician but a mediocre administrator.” Thus, according to Fayol, a firm’s performance depended more on its leaders’ managerial ability than technical abilities. In this same address, Fayol also presented an early list of management principles, including: unity of command, hierarchical transmission of orders, separation of powers among distinct departments, and centralization/decentralization. In addition to these and other principles, Fayol spoke of prévoyance (“foresight”), the act of forecasting, planning, and budgeting. He also stressed the value of organization charts, meetings and reports, and an accurate and rapid accounting system. Although Fayol’s 1908 address revealed advances in his thinking, it lacked the depth and conceptual clarity of his yet-to-come magnum opus.

Fayol’s masterpiece, Administration Industrielle et Générale, was first published in the Bulletin de la Societe de l’Industrie Minerale in 1916. Republished in book form the next year by Librarie H. Dunod and E. Pinat, it was known throughout France as “a catechism for the chief executive’s education.” Fayolisme became as firmly entrenched in French management thinking as Taylorism had become in the United States. From 1918 to his death in 1925, Fayol presided over the meetings of the Centre d’Études Administratives, a group he formed to promote the advancement of Fayolisme. Shortly after Fayol’s death, the Centre merged with the Henri le Chatelier’s Conference de l’Organisation Française to form the still active Comité National de l’Organisation Française. This merger brought together France’s two main professional management associations.

Dissemination of Fayol’s ideas beyond France was initially slowed by World War I, and it was almost four decades before his originality was appreciated outside a small

circle of scholars in Europe and Great Britain. Early interpretations contrasted Fayol’s and Taylor’s work. Whereas Taylor approached the study of management from the workshop or technical level, Fayol approached it from the viewpoint of upper-level administration. Fayol’s emphasis on administrative management reflected his more than fifty years’ experience as an industrial mining executive. Be that as it may, Fayol insisted that his work complemented Taylor’s thinking, in that both he and Taylor sought to improve managerial practice.

THE NEED FOR MANAGEMENT THEORY

In earlier writings, Fayol noted managerial ability was essential for organizational success. If managerial ability was important, however, then why did schools and universities neglect managerial training to focus exclusively on teaching technical skills? The answer, according to Fayol, was the absence of management theory. Fayol defined theory as “a collection of principles, rules, methods, and procedures tried and checked by general experience.” Writing from his years of experience, he noted that many managers theorized, but that in practice there existed many managerial contradictions and little systematic reflection. Fayol believed that a lack of a management theory made it more difficult to teach and practice management because managers’ experiences were localized and not easily understood by other managers or students of management.

Every firm required management: “Be it a case of commerce, industry, politics, religion, war, or philanthropy, in every concern there is a management function to be performed.” Thus, like Charles Dupin (see Chapter 4), Fayol felt that management required special study apart from technical matters and could be taught in schools and universities as theory was developed and codified.

Managerial ability, according to Fayol, depended on certain qualities and knowledge:

- Physical qualities: health, vigor, address [literally, manner of behaving]
- Mental qualities: ability to understand and learn, judgment, mental vigor, and adaptability
- Moral qualities: energy, firmness, willingness to accept responsibility, initiative, loyalty, tact, dignity


15. Fayol, General and Industrial Management, trans. Storrs, p. 15. Except where specifically noted, the Storrs translation will be referenced, as it is more readily available than other translations.

16. Ibid., p. 41.
• General education: general acquaintance with matters not belonging exclusively to the function performed
• Special knowledge: that peculiar to the function, be it technical, commercial, financial, managerial, and so on
• Experience: knowledge arising from the work proper; the recollection of lessons a person has derived from things.\(^\text{17}\)

Fayol even diagrammed what he believed to be the relative importance of technical and managerial abilities for employees with different levels of authority. As he explained, at the worker level, technical ability was most important; but as individuals moved up the “scalar chain,” the relative importance of managerial ability increases while the need for technical ability decreases. The higher the level of authority, the more dominant the need for managerial ability. Ability in commercial, financial, security, and accounting matters also diminishes in importance as a manager’s authority increases. As for differences in firm size, Fayol contended that managers of small firms need relatively more technical ability than their counterparts in larger firms, whereas managerial rather than technical ability is required at higher levels in larger firms.

In summary, Fayol contended that all employees, from foremen to work superintendents, should receive some managerial training. He believed schools and universities did not teach management because it was thought that experience was the only way to acquire managerial ability. Recognizing that most higher managers have “neither the time nor inclination for writing,”\(^\text{18}\) Fayol used his experiences and observations to propose a body of knowledge that included principles as guides to thinking and practice and elements of management as a description of the functions managers performed. His goal was to start a general discussion from which a theory of management might emanate.

THE PRINCIPLES OF MANAGEMENT

Fayol recognized that the term principles is often misunderstood. To some observers, it suggests an unquestioned or rigid way of doing things, on the order of laws in the physical sciences. For this reason, Fayol was careful to explain what he meant by “principles”:

For preference I shall adopt the term principles whilst dissociating it from any suggestion of rigidity, for there is nothing rigid or absolute in management affairs, it is all a question of proportion. Seldom do we have to apply the same principle twice in identical conditions; allowance must be made for different and changing circumstances.\ldots

\(^\text{17}\) Ibid., p. 7.
\(^\text{18}\) Ibid., p. 15.
Therefore principles are flexible and capable of adaptation to every need; it is a matter of knowing how to make use of them, which is a difficult art requiring intelligence, experience, decision and proportion. Compounded of tact and experience, proportion is one of the foremost attributes of the manager.\footnote{Ibid., p. 19.}

Moreover, Fayol stressed that in advancing a list of principles of management, he was not suggesting that there is a limit to the number of principles that might apply in different situations. Other principles could be identified. The principles he chose to review were simply those he had found most useful in his own career. The fourteen principles on which Fayol concentrated were:

- Division of work
- Authority
- Discipline
- Unity of command
- Unity of direction
- Subordination of individual interests to the general interest
- Remuneration
- Centralization
- Scalar chain (line of authority)
- Order
- Equity
- Stability of tenure of personnel
- Initiative
- \textit{Esprit de corps}

\textit{Division of work} is the well-known idea of assigning separate tasks to individual specialists with the intent of producing “more and better work with the same effort.” Fayol recognized that division of labor leads to heightened expertise, which increases productivity. He also noted that as a result of the specialization that derives from division of work, jobs are performed more quickly because employees do not lose time shifting from one activity to another. At the same time, Fayol appreciated that benefits derived from dividing work must be balanced against obvious disadvantages associated with such negatives as boredom and monotony. As he unequivocally stated, “division of work has its limits which experience and a sense of proportion teach us may not be exceeded.”\footnote{Ibid., p. 20.}

\textit{Authority} was defined as “the right to give orders and the power to exact obedience.” Fayol distinguished between the formal authority managers held by
virtue of office or rank and personal authority, which was “compounded of intelligence, experience, moral worth, ability to lead, past services, etc.” Well ahead of modern-day scholars, Fayol recognized that savvy managers complement their official authority with personal authority. He further realized that authority and responsibility are corollaries in the sense that wherever authority is exercised, responsibility arises. Fayol stated the classic case for authority being commensurate with responsibility. This principle appears throughout the management literature.

*Discipline* is essentially respect and obedience between a firm and its employees. Fayol felt that discipline was vital for a smoothly functioning and prosperous firm. He viewed “defects in discipline” to be a result of ineptitude on the part of a firm’s managers. Discipline came from placing knowledgeable managers at all levels of authority, workplace agreements that are satisfactory to both managers and employees, and the judicious use of employee sanctions.

*Unity of command* was expressed as: “For any action whatsoever an employee should receive orders from one superior only.” Just as the Biblical injunction advises: “No one can serve two masters.” To Fayol, dual command was a threat to authority, discipline, and stability.

*Unity of direction* means “one head and one plan for a group of activities having the same objective.” It provides the coordination necessary for focusing a firm’s efforts. Unity of direction comes from a sound organization structure and is essential to “unity of action.”

*Subordination of individual interests to the general interest* is a plea to abolish “ignorance, ambition, selfishness, laziness, weakness and all human passions.” As viewed by Fayol, the placing of an individual’s or group’s interests over a firm’s general welfare would inevitably lead to conflict among participating parties. Fayol’s observations in this respect represent an early expression of what agency theory refers to as “opportunism,” meaning a form of self-interested behavior (see Chapter 19). Fayol recognized that individuals or groups who serve only themselves are harmful to the interests of their fellow employees and the interest of the firm in general.

*Remuneration* deals with day wages, piece rates, bonuses, and profit sharing. Fayol concluded that appropriate employee remuneration depends on many factors. In general, however, a firm’s method of payment should be fair, should motivate by rewarding successful performance, and should not lead to excessive overpayment. Fayol also acknowledged nonfinancial incentives as a form of remuneration.

*Centralization* is a principle that Fayol felt was always present to a greater or lesser extent and, thus, belonged to the “natural order.” His discussion of centralization as a question of proportion unique to each firm and his appreciation
of the distortion that occurs as information is serially transmitted along a scalar chain continues to offer valuable insights for contemporary managers:

Centralization is not a system of management good or bad of itself, capable of being adopted or discarded at the whim of managers or of circumstances; it is always present to a greater or less extent. The question of centralization or decentralization is a simple question of proportion, it is a matter of finding the optimum degree for the particular concern. In small firms, where the manager’s orders go directly to subordinates, there is absolute centralization; in large concerns, where a long scalar chain is interposed between manager and lower grades, orders and counterinformation, too, have to go through a series of intermediaries. Each employee, intentionally or unintentionally, puts something of himself into the transmission and execution of orders and of information received, too. He does not operate merely as a cog in a machine. What appropriate share of initiative may be left to intermediaries depends on the personal character of the manager, on his moral worth, on the reliability of his subordinates, and also on the condition of the business. The degree of centralization must vary according to different cases. The objective to pursue is the optimum utilization of all faculties of the personnel.  

Scalar chain refers to “the chain of superiors ranging from the ultimate authority to the lowest ranks.” As Fayol explained, this path shows a firm’s line of authority and the links through which communications are transmitted from the top to the bottom of a firm and back. To counter possible communication delays caused by the unity-of-command principle, Fayol developed what is referred to as the “gang plank.” The gang plank allows communications to cross lines of authority. Thus Foreman F, desiring to communicate a message to Foreman P, could do so directly without reporting upward (F through E to A) and having the message in turn transmitted downward to P. The gang plank (see Figure 10-1) permits lateral communication through the shortest path and avoids overburdening a firm’s scalar chain.

Order, with regard to material things, ensures, in the words of a time-honored adage, “A place for everything and everything in its place.” As Fayol noted, the same may be said for people, “The right man in the right place.” The objective of material order is to avoid wasting resources. Fayol recognized that social order requires good organization and good selection and, by necessity, a need to balance a firm’s human requirements with its available resources. Fayol considered ambition,
nepotism, favoritism, or merely ignorance, resulting in unnecessary positions or positions filled with incompetent employees, to be the enemies of social order.

Equity, as envisioned by Fayol, results from a combination of kindliness and justice. As such, equity provides a basis for dealing with employees and instilling devotion and loyalty. Fayol took care to distinguish between equity and equality and, in doing so, anticipated modern equity theory (see Chapter 20). Recognizing the difficulty invoked in instilling a sense of equity at all levels of a firm, Fayol—no doubt reflecting on his personal experience—observed that in dealing with employees’ desire for equity, “the head of the business must frequently summon up his highest faculties.”

Fayol’s twelfth principle, stability of tenure of personnel, sought to provide for orderly human-resource staffing and establishing provisions to ensure that a firm’s employees possessed the requisite abilities for the work to be performed. Fayol appreciated that it took time to develop the necessary skills to perform at a superior level. He also recognized that it took time for a manager and a group of employees to develop into a high-performing team. In particular, managers must get to know their employees to inspire their confidence and, from experience, Fayol knew this can be a lengthy matter.

27. Ibid., p. 38.
Initiative, as a principle, exhorted employees to display zeal and energy in all endeavors. Fayol observed that “thinking out a plan and ensuring its success is... one of the most powerful stimulants of human endeavour... and... [this] is what is called initiative.” Fayol considered the “freedom to propose and execute” to be key aspects of initiative that were essential to subordinate satisfaction. As Fayol thus realized, “The initiative of all, added to that of the manager, and supplementing it if need be, represents a great source of strength for businesses.”

Finally, esprit de corps stressed building harmony and unity within a firm. Fayol warned against sowing dissension among subordinates. Calling once again on his years of experience as a manager, he understood that “real talent is needed to co-ordinate effort, encourage keenness, use each man’s abilities, and reward each one’s merit without arousing jealousies and disturbing harmonious relations.” Quoting the proverb, “union is strength,” Fayol advised: “Dividing enemy forces to weaken them is clever, but dividing one’s own team is a grave sin against the business.”

As Fayol explained, his principles were intended as guides to theory and practice and were not meant to be exhaustive in scope, nor were they meant to be rigidly applied. The factory system of production that developed during the Industrial Revolution (see Chapter 3) reflected many of these principles in practice. Fayol, however, was the first person to formulate them as a set of general management principles.

THE ELEMENTS OF MANAGEMENT

Fayol is also credited with being the first person to identify and describe the elements or functions that comprise a manager’s job. He labeled these elements planning, organizing, command, coordination, and control. Taken together, these five elements represent what is often referred to as “the management process.”

Planning

Fayol recognized that planning, by defining a firm’s objectives, set the stage for the other elements of a manager’s job. At various times, he used the French prévoyance (anticipation or foresight) instead of préparer (to plan) when discussing this element. To Fayol, managing meant looking ahead, and foresight was an essential element of managing. As described by Fayol, a firm’s plan of action represented “the result envisaged” and should rest on (1) a firm’s resources, including buildings, tools, materials, employees, sales outlets, and public relations; (2) the nature of work in process; and (3) future trends in a firm’s business activities that cannot be predetermined. In modern terms, Fayol was describing a

28. Ibid., p. 39.
29. Ibid., p. 40.
rudimentary strategic audit that assesses a firm’s present capabilities and strengths and scans the surrounding task environment to anticipate future marketplace opportunities. Fayol also understood the importance of what modern authorities call “contingency planning.” He observed, “The best of plans cannot anticipate all unexpected occurrences which may arise, but it does include a place for these events and prepares the weapons which may be needed at the moment of being surprised.”

On another occasion he observed:

One cannot anticipate with precision everything which will happen over a longer period but one can minimize uncertainty and carry out one’s program as a result. ... any long-term program should be susceptible to being changed according to the variety, complexity and instability of events. Like any living object the industrial enterprise undergoes continuing transformations: the personnel, the tooling, the methods, even the goals of the association change; the program must without ceasing be kept, as far as possible, in harmony with the environment.

In commenting on the advantages and shortcomings of the forecasting system he used at Comambault, Fayol underscored the benefit of involving a firm’s managers in forecasting. In doing so, he showed an early appreciation of what would become known as “participative management”:

The study of resources, future possibilities, and means to be used for attaining the objective call for contributions from all departmental heads within the framework of their mandate, each one brings to this study the contribution of his experience together with recognition of the responsibility which will fall upon him in executing the plan.

Such participation ensured that no resource was neglected and promoted managerial interest in a firm’s future success. Furthermore, Fayol realized that lower-echelon managers would give increased attention to planning because they would be more committed to executing what they themselves had planned. Fayol saw that a good plan of action would facilitate the efficient use of a firm’s resources and, in doing so, would possess certain characteristics: unity (one overall plan followed by specific plans for each supporting activity); continuity (incorporate both short-range and long-range plans); flexibility (be capable of adjusting to unexpected events); and precision (eliminate as many uncertainties as possible). Considering these characteristics, Fayol advised that firms establish a series of separate plans that

30. Ibid., p. 49.
would together constitute one overall plan for obtaining their objectives. Thus, he recommended that daily, weekly, monthly, annual, five-year, and ten-year forecasts (or plans) be prepared and redrafted as time passed or as conditions changed.

Fayol’s stress on long-range planning was a unique contribution to management thought, and his ideas are as important today as they were for his own time. He also offered innovative insights about planning on a national scale. The French government planned and budgeted on an annual basis with little or no regard for long-term development; the result was hand-to-mouth operations and a lack of fiscal responsibility on the part of government ministers. Fayol attributed the ministers’ failure to develop long-term forecasts on the fact that ministers “come and go” and, thus, “have no time to acquire professional competence, business experience and managerial capacity indispensable to the drawing up of a plan.”

For this reason, he argued for an increase in ministerial tenure to tie ministers to their work and to give them a sense of moral responsibility for the future of France.

**Organizing**

Organizing is the second element or function that Fayol identified as being part of a manager’s job. For Fayol, organizing meant providing a firm with everything it needed to achieve its objectives. This included the classical factors of production: land, labor, and materials. Later writers divided Fayol’s organizing element into two separate functions: organizing and staffing (human-resource management). According to Fayol, it was management’s duty to ensure that a firm’s “human and material organization is consistent with [its] objectives, resources, and requirements.”

In this regard, a firm should be structured to provide unity of direction, clearly defined duties, spur initiative and encourage responsibility, harmonize activities and coordinate efforts, and ensure control without an “excess of regulation, red tape, and paper control.” Fayol appreciated that structure should not be an end in itself, ignoring the human factor:

> [T]o create a useful organization it is not enough to group people [into departments] and distribute duties; there must be knowledge of how to adapt the organic whole to requirements, how to find essential personnel and put each where he can be of most service. . . . Of two organizations similar in appearance, one may be excellent the other bad, depending on the personal qualities of those who compose them.

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33. Ibid., p. 52.
34. Ibid., p. 53.
35. Ibid., p. 54.
36. Ibid., p. 57.
Thus, Fayol realized it was people, not structure, that made the difference between the success of two otherwise similar firms. In retrospect, Fayol anticipated modern contingency theories of organizational design (see Chapter 20).

Fayol noted that the successive layers of authority that comprise an organization (the so-called organizational pyramid) are a product of functional and scalar growth. "Functional growth" relates to the horizontal structure of a firm, in that employees are added to perform functional duties as a firm's workload expands. In contrast, "scalar growth" is vertical, caused by the need to add layers of supervision to coordinate various activities divided among departments. Fayol described what happens to a firm's structure as its workforce increases. As an illustration he considered what happens relative to functional and scalar growth in a firm where fifteen employees report to each first-line supervisor, and in turn, each group of four supervisors is under the direction of a higher-level supervisor or manager. In such a situation, every sixty employees required four supervisors, and these four supervisors required one common manager. Fayol realized that there is a limit to the number of subordinates that a manager can effectively supervise. The number of subordinates that report directly to a manager is termed "span of control." Fayol advocated relatively narrow spans of control throughout a firm. With the exception of first-line supervisors, Fayol felt managers should typically have direct control over less than six subordinates. Where work was simple, a first-line supervisor could direct up to twenty or thirty employees.

On the subject of staff employees, Fayol visualized a group of individuals who had the "strength, knowledge, and time" to assist line managers by acting as an "extension of a manager's personality." Staff employees were to take orders only from a firm's general manager and to "subserve" line managers in dealing with daily obligations such as correspondence, interviews, and conferences, as well as to assist in harmonizing current and future plans. Based on his own experience as an executive, Fayol believed that line managers generally had neither the time nor the energy to devote to long-term considerations. Staff employees, freed of daily pressures associated with running a department, could "search for improvements" in work methods, identify developing changes in immediate business conditions, and consider longer-term trends.37

Fayol reviewed the differences between his recommendations for utilizing staff employees and Taylor's functional foremanship. Fayol agreed with Taylor's goal, providing specialized assistance, but disagreed with the means. Functional foremanship negated the unity-of-command principle, and to Fayol, this was treading on dangerous ground. Order must be maintained, and for Fayol this was possible only if no subordinate reported to more than one superior: "So... let us treasure the old type of organization in which unity of command is honoured. It can, after all, be easily reconciled... with [staff] assistance given to superintendents.

37. Ibid., p. 63.
and foremen. In extending his comments, Fayol expressed the opinion that organization charts, showing all the positions in a firm and their relationships to one another, aided in maintaining the unity-of-command principle throughout a firm. He observed that, compared to lengthy written descriptions, organization charts enabled managers to more easily grasp a firm’s “organic whole.” Unfortunately, Fayol’s complete thoughts on organizing were not published until many years after his passing.

Focusing on what he referred to as the “body corporate,” Fayol also commented on developing a firm’s human resources. He especially viewed employee selection and training to be vital for determining a firm’s fate. Fayol considered selecting capable employees to be among “the most important and most difficult of business activities.” Noting that the consequences of poor selection are “commensurate with the rank of the employee,” Fayol advised that the length of time devoted to choosing an employee should increase with the level of the position being filled. On balance, like Taylor, Fayol’s treatment of evaluating a firm’s employees was limited, reflecting the rudimentary practices of the day. Training, in contrast, was dealt with at length, primarily because Fayol had an ulterior motive. As previously discussed, Fayol called for less technical training of young engineers and an increase in attention to the elements of management. In Fayol’s view, contemporary education in French schools was based on two illusions: “that the value of engineers and industrial leaders comprises technical ability almost exclusively [and] bears a direct relationship to the number of years devoted to the subject of mathematics.” Fayol believed that the latter “illusion” was just as “false” as the former, but would likely prove harder to dispel: “Long personal experience has taught me that the use of higher mathematics counts for nothing in managing businesses.” Basic mathematics helped train the mind, but further study should be devoted to management rather than more mathematics. Fayol sought balance and advised young engineers to study workmen, “their behaviour, character, abilities, work, and even their personal interests.” Indeed, Fayol thought that everyone should study the elements of management, for they were necessary in the workshop as well as in the home.

**Command, Coordination, and Control**

Having been formed, Fayol reasoned that a firm must be set into motion. He viewed this as the “mission of command,” as spread among a firm’s managers. Fayol used...
the French commander (to command) as well as diriger (to direct) in his writing. Because “command” has a more specific meaning in English, perhaps the most representative translation of this third element of management would be “to direct or to supervise.” Fayol felt that it was every manager’s duty to “get the optimum return from all employees” and that doing so required certain personal qualities and principles of management. Fayol held that managers should:

- Have a thorough knowledge of their employees
- Eliminate incompetent employees
- Be well versed in the agreements binding a firm and its employees
- Set a good example for others
- Conduct periodic audits of a firm’s performance
- Confer with their assistants as a group to provide for unity of direction and the focusing of effort
- Avoid becoming engrossed in detail
- Strive at making unity, energy, initiative, and loyalty prevail among all employees

In a diary entry dated July 29, 1898, Fayol wrote: “In business administration, the question of [managing] people represents more than one-half of the problem.” As a young manager, Fayol had built effective work teams in the Commentry mines, discontinued paternalistic practices such as monitoring employee church attendance, closed company-owned stores in areas where local merchants were present, and demonstrated other people-management skills that led to his promotions. With people representing one-half of the challenge managers faced, Fayol learned that communication skills were crucial. He saw conferring with assistants to be important for establishing and maintaining clear communications. His admonition to avoid being engrossed in detail was not antithetical to keeping informed, but rather meant to be a warning not to neglect large problems while lavishing attention on picayune matters. Further reflecting an appreciation of the human element, Fayol believed that to encourage initiative, managers should allow subordinates “the maximum share of activity consistent with their position and capability, even at the cost of some mistakes.” Moreover, Fayol felt that authority should be delegated downward to develop employees’ abilities and to avoid “drying up initiative and loyalty.”

Coordination was Fayol’s fourth element or function of management. By coordination, Fayol meant “to harmonize all the activities of a concern so as to facilitate its working, and its success.” Later writers have stressed the necessity of coordination in all elements of management rather than treating it as a separate element. To Fayol, coordination required balancing expenses with revenues, equipment maintenance

43. Ibid., pp. 97–98.
46. Ibid., p. 103.
with meeting production goals, and sales against production. The functions of planning and organizing facilitated coordination by specifying duties, establishing schedules, and focusing responsibilities on furthering a firm’s objectives. Command instilled initiative, and conferences with assistants and subordinates provided a clearinghouse for airing problems, progress, and plans. Fayol recommended that line managers use staff employees to enhance coordination, but warned that their use did not replace line managers’ direct responsibility for achieving a firm’s objectives.

Control, Fayol’s final element of management, consisted of “verifying whether everything occurs in conformity with the plan adopted, the instructions issued, and the principles established.” According to Fayol, the objective of control was to identify errors so as to correct them and prevent their recurrence. Control was to be applied to people, objects, and activities. Effective control should be based on prompt action, followed by sanctions, if necessary. Fayol saw control as having an integrative effect on the other elements of management because it could be used to stimulate better planning, simplify and strengthen a firm’s organization structure, enhance the directing of employees, and facilitate coordination. In effect, control completed a cycle of managerial activities that could then be improved as the management process continued.

A FINAL NOTE

Fayol’s orientation was that of an upper-level administrator. He believed that “the responsibility of general management is to conduct the enterprise toward its objective by making optimum use of available resources. It is the executive authority, it draws up the plan of action, selects personnel, determines performance, ensures and controls the execution of all activities.”

For all intents and purposes, Fayol was a strategist before that term became popular. The familiar ring of Fayol’s ideas suggests how thoroughly they have penetrated current managerial thinking. Whereas many of them may seem relatively self-evident today, they were revolutionary when first advanced. They remain important not only because of Fayol’s influence on succeeding generations of managers, but also because of the continuing validity of his work. As a keen observer of management practice has noted: “Whether they admit it or not, it’s obvious most managers today are fundamentally Fayolists.” For this reason, Fayol is known as the “Father of Modern Management.”

47. Ibid., p. 107.
Bureaucracy: Max Weber

The life and work of Max Weber (1864–1920) ran chronologically parallel to those of Henri Fayol and Frederick Taylor. Born in Germany to a life of affluence in a family with social and political connections, Weber (pronounced Vay-ber) was an intellectual of the first degree, with far-ranging interests in sociology, religion, economics, and political science. In 1904, while in the final stages of preparing his epochal study, *The Protestant Ethic and the Spirit of Capitalism,* on why capitalism flourished in certain parts of seventeenth- and eighteenth-century Europe and not others, Weber had an opportunity to visit the United States, which he considered the most capitalistic of all nations. Weber was invited to give a lecture, “The Relations of the Rural Community to Other Branches of Social Sciences,” at the International Congress of Arts and Sciences, which was being held in conjunction with the St. Louis World’s Fair. He combined attending the conference with a stop in New York City to do some further research at Columbia University and the New York Public Libraries, a short stay with relatives in Mount Airy, North Carolina, and, to see firsthand how the spirit of capitalism abounded in the United States, visits to various cities, including Philadelphia, Washington, Baltimore, Boston, Chicago, New Orleans, and Tuskegee, Alabama, and the Muskogee Indian Territory in Oklahoma.

The economic developments he observed in the United States were somewhat different from those in Germany. U.S. manufacturing and marketing had grown from small stores and owner-managed businesses to large professionally managed firms that were bound together by an intercontinental network of communication and transportation. In Germany, large-scale firms had been developed only in chemicals, metals, and complex industrial machine-goods. In these industries,


cartels had been formed to control prices and ration markets. Whereas in the United States this practice was limited by antitrust laws, German cartels could operate without fear of either government intervention or threat of competition. In contrast to Germany, in the United States a “spirit of capitalism” encouraged innovation and competition.

**BUREAUCRACY AS THE IDEAL**

Primarily prescriptive in nature, Weber’s writings strike an interesting contrast with the practitioner-oriented recommendations offered by Taylor and Fayol. Weber’s major contribution was an outline of the characteristics of what he termed “bureaucracy,” that is, government by bureaus (German Büro). In reviewing Weber’s work, it is important to emphasize four points:

1. Weber did not use the term bureaucracy in the disparaging, emotionally tinged sense of red tape, endless lines, and rule-encumbered inefficiency. Rather, he used it as a noncritical label referring to what he regarded as the most modern and efficient method of organizing yet developed. In Weber’s words,

   Experience tends universally to show that the purely bureaucratic type of administrative organization—that is, the monocentric variety of bureaucracy—is, from a purely technical point of view, capable of attaining the highest degree of efficiency and is in this sense formally the most rational known means of carrying out imperative control over human beings. It is superior to any other form in precision, in stability, in the stringency of its discipline, and in its reliability. It thus makes possible a particularly high degree of calculability of results for the heads of the organization and for those acting in relation to it. It is finally superior both in intensive efficiency and in the scope of its operations and is formally capable of application to all kinds of administrative tasks.

   What is not often understood is that bureaucracy developed as a reaction against the personal subjugation and cruelty, as well as the capricious and subjective judgments, of earlier administrative systems (such as monarchies and dictatorships) in which the lives and fortunes of all were completely dependent on the whims of a despot whose only law was his own wish. For

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this reason, the benefits Weber attributed to bureaucracy can perhaps best be understood when compared to the alternatives it replaced. "Thus, for example, tax farming, whereby local collectors worked for a percentage of the take, was displaced by bureaucracies staffed with full-time salaried officials; inside contracting, whereby owners of equipment and materials contracted with foremen for labor, gave way to modern hierarchies." When compared to the administrative practices that preceded them, the efficiencies attributed to bureaucracies become understandable.

The world observed by Weber was decidedly unjust. It was dominated by class consciousness and nepotism. To be a military officer or a leader in government or industry presupposed an aristocratic birth. In Weber's view, this was a ridiculous waste of human resources that ran counter to his belief that the working class could produce leaders as well as followers. Bureaucracy, with its emphasis on legal authority (see point 3), was intended to put an end to the exploitation of employees and to ensure equal opportunity and treatment for all.

2. To Weber, bureaucracy was an ideal that did not exist in reality. It was a standard or model to be used not only in organizing a firm, but also in assessing, through comparison, its relative performance. In this regard Weber's bureaucratic model is hypothetical rather than factual. It is not meant to be a working model, nor is it meant to correspond to reality.

3. Weber's ideal bureaucracy is based on legal authority as contrasted with that which rests on either tradition (custom) or charisma ("the gift of grace"). As developed by Weber, legal authority stems from rules and other controls that govern an undertaking in the pursuit of specific goals. Managers are given the authority to interpret and enforce these rules and other controls by virtue of their position. Obedience is not owed to a person but to the impersonal authority of an office. Thus, authority adheres to specific positions rather than to individuals. This is necessary if authority is to outlast the tenure of individual officeholders. Familiar examples of legal authority structures are the military, politically elected offices, government bureaus, colleges or universities, and business firms (especially those above a certain size).

4. The need Weber identified for efficient organizing is inherently culture free. Reliance on rationality and legalism, the idea of equality of citizens and the vast services offered in a modern state, make some form of expert administration unavoidable. In addition, the increasing size of firms, advanced technology, and the global marketplace make bureaucracy inevitable. Thus, bureaucracy in government was followed by an increase in the bureaucracy of business corporations, trade unions, churches, service groups, and voluntary associations. Today, all undertakings of any size in any culture are bureaucratic to some degree.

THE ADVANTAGES OF BUREAUCRACY

Weber identified the essential characteristics of his "ideal" bureaucracy and believed that specific advantages would accrue to undertakings that embodied them. These characteristics and sample advantages include:

- **Division of Labor.** Labor is divided so that authority and responsibility are clearly defined.

  Advantage—*Efficiency* will increase through specialization.

- **Managerial Hierarchy.** Offices or positions are organized in a hierarchy of authority.

  Advantage—A clear chain of command will develop from the highest to the lowest level of an organization (Fayol's scalar chain principle), defining different levels of authority, and thus individual discretion, as well as enabling better communication.

- **Formal Selection.** All employees are selected on the basis of technical qualifications demonstrated by formal examination, education, or training.

  Advantage—Employees will be hired and promoted based on merit and expertise, thus, benefiting both them and their employer.

- **Career Orientation.** Although a measure of flexibility is attained by electing higher-level officials who presumably express the will of an electorate (for example, a body of citizens or a board of directors), employees are career professionals rather than "politicians." They work for fixed salaries and pursue "careers" within their respective fields.

  Advantage—The hiring of "career" professionals will ensure the performance of assigned duties without regard for extraneous pressures, as well as ensure a continuity of operations across election cycles.
\begin{itemize}
\item \textit{Formal Rules and Other Controls.} All employees are subject to formal rules and other controls regarding the performance of their duties.
\end{itemize}

Advantage—Efficiency will increase as formal rules and other controls relating to employee performance are enforced.

\begin{itemize}
\item \textit{Impersonality.} Rules and other controls are impersonal and uniformly applied in all cases.
\end{itemize}

Advantage—When rules and other controls are applied impersonally and uniformly, involvement with personalities and personal preferences is avoided. Subordinates are thereby protected from arbitrary actions of their superiors.\(^{60}\)

### THE DISADVANTAGES OF BUREAUCRACY

Although Weber considered bureaucracy to be the most efficient means of organizing, both his own experience and subsequent research have shown that it often results in certain disadvantages. These include:

\begin{itemize}
\item Rules and other controls may take on a significance of their own and, as a consequence, become ends in themselves. Employees, for example, may accuse budget personnel of being more interested in applying rules and regulations than achieving a firm’s primary goals.
\item Extreme devotion to rules and other controls may lead to situations in which past decisions are blindly repeated without appreciation or concern for changed conditions. Such “bureaucratic rigidity” results in managers being compensated for doing what they are told and not for thinking. The result is “rule by rules” rather than common sense.
\item Whereas delegation of authority to lower levels may increase operational effectiveness, it may also encourage an emphasis on subunit rather than overall goals, thereby prompting subunit conflict and decreasing effectiveness. A typical example can be found in many universities where conflicts over which department is going to offer what courses often result in unnecessary duplication of subject offerings, as well as the unnecessary expenditure of resources.
\item Although rules and other controls are intended to counter worker apathy, they may actually contribute to it by defining unacceptable behavior and, thus, specifying a minimum level of acceptable performance. That is, it is possible, once rules have been defined, for employees to \textit{remain} apathetic, for they now know just how \textit{little} they can do and still remain secure.
\end{itemize}

This is commonly known as “working to the rules,” because what is not covered by rules is by definition not an employee’s responsibility. Within an educational setting, statements such as “all students must attend at least 50 percent of the classes during a term to pass” or “the minimum requirement for graduation is a C average on all course work undertaken” are illustrations of this phenomenon in that they clearly define minimum levels of acceptable behavior. Unfortunately, a typical administrative response in such circumstances is to enact additional bureaucratic rules (such as mandatory class attendance) and, in turn, further aggravate an already poor situation. Unless care is taken, however, such a situation may result in a “vicious circle of bureaucracy,” because once employees discover the appeasing effect of rules, they may push for even more controls to further restrict management’s power. Therefore rules maybe functional in one sense, but in another (unintended) sense, they permit employee involvement without requiring emotional commitment.

Despite these and other criticisms, bureaucratic management is a central feature in modern societies. It is thus important to realize that the disadvantages just outlined are not necessarily inherent in bureaucracy per se. As envisioned by Weber, the bureaucratic model is both rational and efficient. Gaining its benefits, however, requires learning enough about its characteristics to avoid being controlled by them.

Though many of us may feel that we live in a bureaucratic world of baffling rules and other controls, we should not forget that bureaucracy also makes it possible for us to get potable water instantly, place an international telephone call in seconds, and have a package delivered a continent away overnight. Indeed, almost all the benefits we take for granted in today’s society—modern medicine, modern science, modern industry—rest on a bureaucratic foundation. In this respect, Weber’s ideas have stood the test of time remarkably well. His pioneering work, like that of Fayol, has stimulated a wealth of research into the management process and remains a landmark in the evolution of management thought. In recognition of his contributions in developing the tenets of bureaucracy, Weber is known as the “Father of Organization Theory.” Weber’s goal was not perfection, but systematization—moving managerial practice and organizational design toward more logical ways of operating. Weber’s work on bureaucracy remained largely unknown to English-speaking audiences until it began to be translated in the late 1920s. Like Fayol, Weber had to wait until cultural conditions created the need to think in theoretical terms. As firms grew in size and complexity, the search for a theory of organizations led researchers and practitioners to Max Weber and his bureaucratic model.

**Summary**

The emergence of the management process and organization theory took place in two forms: Fayol’s identification of the principles and elements of management and Weber’s search for an ideal way of organizing. From different backgrounds and
perspectives, both Fayol and Weber attempted to develop methods for managing large-scale organizations. Fayol stressed education for management rather than technical training, the importance of planning, organizing, command, coordination, and control. Weber sought to replace authority based on tradition and charisma with legal authority and to prescribe an impersonal and merit basis for selecting, hiring, and promoting employees. Both Weber and Fayol had history’s misfortune of being overshadowed by others and having to wait until after their deaths to receive proper credit for their roles in the ongoing evolution of management thought.