Chapter I

The History of American Management Thought: A Perspective and Analysis

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INTRODUCTORY COMMENTS AND OVERVIEW

The importance of American management thought, as is the case with any body of knowledge, lies in the lessons that can be learned from the past and applied to the future. After an evolution of more than 250 years, American managers and scholars find themselves asking, "Where have we been, and where do we go from here?"

American management thought had its origins in the academic disciplines of economics, sociology, and psychology. Later, a new discipline emerged, which focused on the study of management. Although the material covered in this chapter has a business-oriented focus, the vast majority of what is written here pertains to public entities as well.

Since the mid 1970s, the application of management principles developed by contemporary writers to solve management problems has been a dominant force in shaping current American management practice. In recent years, however, many academics and business managers have begun to question whether the current discipline of management study will add real value to American management practice or, if in the quest for a "quick fix" to complex problems, the future has been undermined.
As management thought emerged and business schools developed, many of the writers who have remained the most influential in the field of management thought were themselves experienced managers. Some of these practitioners, such as Chester Barnard and Frederick Taylor, ran large corporations, New Jersey Bell (1927) and Midvale Steel Company (1884), respectively. In more recent times, others, such as Peter Drucker, Thomas Peters, and Michael Porter, were and remain consultants to a variety of organizations.

The importance of the distinction between an academic discipline and an applied discipline, such as the hands-on approach of practitioners, espoused by modern-day consultants, should not be lost on the reader. The principles that emerge from an academic discipline have not necessarily been “field tested.” Rather, they are born of ideas and concepts that may or may not be generally applicable to circumstances or situations within a working organization. Recent management theory, which falls in this category, strokes with a broad brush, and therein lies the problem. Many recent management writings prescribe very specific applications—ready-made formulas perhaps—for organizations to follow in pursuit of increased productivity, efficiency and profit. The critical issue for the future of American management is whether such prescriptions produce short-term value, long-term value, both, or neither.

A CLASSIFICATION OF AMERICAN MANAGEMENT THOUGHT

The following classification scheme and time line are presented to give the reader a framework for understanding the development and rooting of the dominant management influences into various time periods and schools of management thought. This approach is not without flaws, however. First, there are many excellent books on the historical influence of great writers impacting the field of American management (Matteson & Ivancevich, 1996; Boone & Bowen, 1987; McCurdy, 1973). However, the authors of these works often use slightly different titles to classify the same writers within a given school of thought. Moreover, sometimes the same theorist is classified into different schools of thought. Chester Barnard, for example, has been placed in both the Human Relations School and the Classical School by different writers on the subject. Another problem is that the influence of different schools of thought overlap, making it difficult to be precise in establishing the starting and stopping points from one school of thought to another.

Despite these limitations, it is useful to develop a framework for analyzing the ideas and influences that have led to a specific management approach, doctrine or philosophy. The time line associated with each school of thought is intended to provide a rough estimate of the period of that school’s major influence on management thinking and practice. The reader should note, however, that many of the different schools of thought presented in this article continue to exert influence on current writers and management practitioners.

In developing the time line and classification scheme, the author relied on numerous works. One work in particular deserves to be noted, as the names for the various schools of thought used in this article and many of the historical
descriptions associated with various schools of thought are taken from Aldag and Stearns' excellent 1987 text, Management. At times the author has extrapolated from the material of many of the works cited herein to provide some analysis and thought-provoking ideas. Although the author has made every attempt to interpret objectively and fairly the thinking of many gifted scholars and practitioners, the author accepts blame for any error that may result from the extrapolation required to interpret and apply another's meaning to a particular context.

Milestones in American Management Thought

This section is intended to provide the reader with a historical time frame so that ideas and events can be placed in context. The dates for each school of thought represent when the primary body of academic work was developed for that school of thought and not exact starting or ending points.

Pre-Industrial Revolution (prior to 1770)

This period is highlighted by the contributions of the Romans, the Greeks, the military, and the church. Many of the management practices developed by these entities remain with us to this day.

Industrial Revolution (post 1770)

This period is marked by the growth of capitalism and, for the first time in human history, productivity increases without war. Productivity gains and the rise in the production and consumption of material goods define the framework of the economic and social structure that developed in the United States during this period. American and European academics and management practitioners observed the effects of the Industrial Revolution and chronicled their impact in what many have called the Classical School of American Management (Aldag and Stearns, 1987). This school of thought exerted its impact on American management practices from the Industrial Revolution until the 1930s. However, the organization forms and strategy of decentralized decision making continue to influence much of American management practice to this day.

Scientific Management (1900–1930)

This school of thought developed from a focus on increasing efficiency in an increasingly complex industrial society. The theme of the school was on finding an appropriate match between worker characteristics and job design so as to ensure maximum efficiency. Frederick Taylor (1911), whose work is still referenced in many industries, heavily influenced this school of thought.

Human Relations (1920–1960)

It is possible that the Human Relations School developed as a reaction to the focus on humans as interchangeable parts in various mechanical processes whose efficiency could be enhanced by finding the one best way to carry out the process. That thinking developed as an integral part of the Scientific Management School. The world of American management thought was turned topsy-turvy by the work of a group of industrial psychologists from the Harvard faculty consulting
at Western Electric’s Hawthorne plant in the late 1920s through the early 1930s. Their work, which concluded that paying attention to the worker was in and of itself a powerful motivator of superior job effort and output, launched a revolution in social science. Since that time, there has been a plethora of articles, books and experiments that have attempted to link various dimensions of human needs (e.g., satisfaction, recognition, status, achievement, and so forth) to increased productivity. The belief in this approach continues unabated, although most of the “new” theories pertaining to enhanced human performance through intrinsic rewards were developed between 1930 and 1970. However, many of these links among participation, satisfaction, and productivity increases remain unsubstantiated (Yukl, 1998, p. 125).

Quantitative & Total Quality Management (1940–Present)

World War II saw the development and implementation of widespread and sophisticated computer applications for military use. This led to increased use of computers and other quantitative tools for the purpose of enhancing human decision making. The Total Quality Management (TQM) movement, which is based on reducing the amount of variance in goods production through statistical analysis, has its origin in this school of thought. Japan adopted many of these methods, and in large measure, Japan’s recognition of their power in manufacturing enterprises accounts for Japan’s transformation from a war-ravaged country to a major international competitor. The United States, ironically, did not begin to focus on the benefits of this approach until the late 1960s, when its manufacturing base and automobile markets experienced noticeable decline. Today, TQM is still in vogue as a tool of American management.

Systems Theory (1940–1980)

This theory sought to explain the various relationships that exist between an organization and its environment. The linkages determine the structure and function of organizational life, according to this school. Systems Theory continues to provide a useful method to study organizational functions and interactions.

Contingency Theory (1960–1990)

Organizational forms become more complex as the demand for product differentiation heightens. In an attempt to blend a variety of theories into one discipline, topologies begin to appear that indicate, for instance, that mechanistic, rule-oriented structures are appropriate for routine tasks in a stable environment, while non-routine tasks can best be conducted in organic structures (Burns and Stalker, 1961). Many argue that success is contingent on the linkages between organizations. Still other theorists think the United States is managing its way to economic decline based on the fact that the rise of lawyers, accountants, and financial experts to positions of control has led not only to a high rate of mergers and acquisitions, but to a decline in investment in research and development for new products. This thinking is still prevalent today (Hayes and Abernathy, 1980).

A theory developed by noted economist Oliver Williamson, the Chance Event (1975), began to take root during this period. It indicated that managerial skills have little to do with success; rather, the environment accounts for success. In other words, being in the right place at the right time has much more to do with company growth and survival than does management skill. The outcome for an organization is a function of being in the right place at the right time rather than a result of careful planning or skilled leadership (Williamson, 1983).

Theory Z (1960–1990)

The dominant issue of this period was how the United States could emulate Japan’s success. According to Theory Z, the United States needed to emulate Japan’s long-term focus and develop team-oriented systems, driven by worker input and control. Lifetime employment should become an objective of American enterprise. Theory Z was called into question with the recession of the late 1980s and the realization that manufacturing, particularly in steel-related industries, was no longer going to be dominated by the United States (Johnson and Packer, 1987). Further, Japan’s recent economic plight, demands for equality, and its focus on quality-of-life issues such as more leisure time have highlighted the fact that industrial success may, as an evolutionary byproduct of economic success, change a nation’s social values and work ethic. While Japan is of interest from the standpoint of how it will fare in the future, its style of management is no longer seen as a panacea for American concerns about its declining manufacturing base or its being able to compete effectively in a global economy.

Cookbook Approaches to Management Practices (1980–Present)

While the trend toward “cookbook” approaches that offer recipes as prescriptions to solve the perceived ills of American management first took root in the 1950s with the writings of Peter Drucker, such approaches gained momentum in the 1980s with Peters and Waterman’s In Search of Excellence (1982), Albrecht and Zemke’s Service America (1985), Crosby’s Quality Is Free (1980), and Porter’s Competitive Strategy (1980) and Competitive Advantage (1985). These works and others continue to influence American management thinking and practice. These prescriptions vary in that some focus on human behavior and others focus on organizational design. The American appetite for such instant approaches seems to be insatiable; however, the verdict is still out as to whether or not such recipes will be prescriptions that produce meaningful results.

The thoughts and ideas developed in this section are elaborated in the next section.

Organizational Forms Prior to the Industrial Revolution

The history of American management thought has its origins in Egyptian, Greek, and Roman society. The Greeks made a distinction between public and private goods and rejected mysticism in favor of the formation of some form of common governance to protect the use and distribution of public and private goods. The Egyptians were known for their engineering feats. The Romans had a system of
specialized labor, which produced arms for barter. The Romans also had a sophisticated system of taxation.

Prior to the Industrial Revolution, in 17th century England, several organizational forms developed that utilized managers to accomplish objectives. Of primary consideration are the church and the military. Even earlier, the primitive tribes of many areas contributed much to the basic principles of justice and jurisprudence in communal life, but it is difficult to pinpoint the exact contributions of specific tribes.

The early nation-states administered the building of roads, the distribution of food supplies, the collection of taxes, and the supervision of the military. Niccolo Machiavelli's *The Prince* (1513) sets forth in elaborate detail not only the tactics of political survival within large organizations (which was required reading for John F. Kennedy's cabinet (Rourke, 1969, p. 48) and to this day still crosses the desk of many business-oriented graduate students) but highlights as well the complexity of the role of organizational management even in 16th century Florence.

The military advanced many principles of organizational life that are still in practice today. Early concepts that have been embraced by modern organizations include the chain of command as a primary mechanism for organizational decision making within hierarchies. Unity of command was based on the thought that individuals will be able to conduct their missions with less confusion and conflict if they are responsible to one supervisor. Ironically, the principle of unity of command has been supplanted by the matrix organization, where individuals report to more than one boss. Many scholars have observed that the major flaw of today's increasingly popular matrix organization is that employees become task-conflicted as a result of reporting to multiple supervisors (Daft, 1998). Moreover, American management seems to have a penchant for command and control structures and reporting mechanisms; hence, the obsession with management by objectives and centralized hierarchical decision making. Both of these practices, which are discussed below, have come under serious attack and are seen as counterproductive in fast-changing and productive environments (Kotter, 1977, 1982; Mintzberg, 1994).

Napoleon is given much credit for the concepts of delegation of authority and completed staff work. The former concept required Napoleon's officers to follow through in their specific areas of responsibility, and the latter concept required each officer to present to Napoleon three possible solutions to each identified problem. Military principles and practices continue to have enormous impact on modern organizations (Aldag and Stearns, 1987). All branches of the United States military have enormous research facilities dedicated to the development and improvement of management practices to enhance the effectiveness and efficiency of training programs, and the impact of motivational and disciplinary actions on productivity and morale (Dunnette, 1966).

The church observed many principles established by the military to structure a hierarchical chain of command. The most interesting aspect of the church's impact on organizational theory is the realization that ideology alone is sufficient to bind individuals to an organization. The understanding that the underpinnings of organization commitment are rooted in an organization's ability to influence attitudes and values provided the framework for latter-day sociologists
and psychologists to study human motivation and the relationship between self-expression and self-concept. They concluded that these relationships are inseparably linked in 20th century corporate life.

The Post-Industrial Society

It has been cogently argued by Daniel Bell (1973) in one of the most important works of the past half-century, *The Coming of the Post-Industrial Society*, that the corporation has replaced the closely knit rural communities that sociologists such as Max Weber described as gemeinschaft. In gemeinschaft communities, citizens found psychological security in strong family ties and the institutions that were the backbone of agrarian life in pre-industrial America—the church and the school. This is particularly the case in advanced industrialized countries such as Britain, France, Germany, Japan, and especially the United States.

According to Bell, the United States, has become the first post-industrial society where work in the service area of the economy, which utilizes knowledge workers and produces no tangible product (e.g., government, education, healthcare, insurance, banking, and retail), has surpassed an industrial-manufacturing base as the locus of economic power. Bell’s claim is supported by the research of Johnson and Packer’s *Workforce 2000* (1987). Johnson and Packer report that

Industrial Consultant Peter Drucker.

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in 1960, six of 10 workers were in white-collar occupations (p. 129). Moreover, the United States remains the only nation where the service sector accounts for more than half the total employment and more than half of the GNP (p. 15).

The movement to urban centers that occurred in tandem with the success of a burgeoning industrialized economy led to breakdowns in family and church ties. Bell’s claims are well documented by a rising divorce rate and declining membership in and affiliations with organized religion among U.S. citizens.

Individuals, all of whom have a need to feel unique in a universe of others like themselves, found a replacement for the support institutions of agrarian life—the school, the church, the family—in the modern corporation (or organization, since one in six full-time American workers works outside the private sector). The consequences of this psychological fact and sociological phenomenon cannot be treated lightly.

This shifting of one’s psychic alliances away from family, church and community life to the corporation or organization explains the major thrust of American management thought for nearly 100 years. The driving force behind contemporary theory has been the desire to understand the complex nature of the

German philosopher Karl Marx.
Courtesy of Library of Congress.
relationship between the individual and the corporation and how that relationship can be enhanced to make the corporation more viable and productive while at the same time providing the individual with an economically and psychologically rewarding relationship. Clearly, the focus of American management thought since Mayo's Hawthorne plant studies, which began in 1927, has been on the complex web of social and psychological relationships that exist between the individual and the corporation. Corporations, in modern American life, symbolize far more than a means to achieving economic well-being. They provide a reason for being, and in so doing, have come to manifest the individual concerns and social controversies (e.g., affirmative action, social responsibility) that confront American life in general.

Foundations for American Management Disciplines

The reshaping of American life in general and the formation of a cogent body of knowledge to enhance productivity and efficiency in America was spearheaded by the Industrial Revolution. Prior to the Industrial Revolution, 95 percent of the population of the United States lived in rural settings. Most urban centers in the early 1700s had less than 2,500 people. By 1960, 60 percent of the population lived in urban centers of 50,000 or more (Bell, 1973, p. 171; Johnson and Packer, 1987, p. 56). During the Industrial Revolution, the migration to urban centers was rapid and extensive. The impact of this movement produced radical changes in the manner of work and human socialization.

One impetus for the development of a discipline of management study was steeped in empiricism and was an outgrowth of serious scholarly work that observed the ramifications of capitalism. Karl Marx (1847) is best known for the theory that capitalism was oppressive to the masses and that the end result would be the masses rising in revolt to suppress the bourgeoisie class. In the course of making his predictions, Marx did observe correctly that as capitalism emerged, it would be fueled by investment funds distinct from those of ownership. Thus, he anticipated the rise of a centralized banking system and its role in modern commerce. However, his related prediction that the banking system would hasten the revolution of the masses was incorrect. That prediction overlooked the implications of the development of a new class of worker, the professional manager. The managerial class, as it developed, became distinct from both the bourgeoisie and the proletariat (Bell, 1973, pp. 56–57).

Clearly, it was the impact of the Industrial Revolution, running in tandem with the emergence of capitalism as a dominant and viable form of economic production, that gave rise to formalized thinking about viable and necessary management practices to keep pace with the rapid spread of industry in the United States. Two pioneers and observers of the transformation of American life were Robert Owen (1771–1858) of Scotland and Charles Babbage (1792–1871) of England. Their work provided a body of knowledge that developed into the foundations for various American management schools.

Owen, prior to his migration to the United States in 1924, promoted humanism in his Scotland mill. He increased the minimum work age to 10 and
provided meal breaks after 10½ hours of work (Aldag and Stearns, 1987, p. 34). Babbage, a mathematical genius, perhaps best known for the binomial system that underpins much modern computer technology, advocated profit sharing and bonus plans in his 1835 work, *On the Economy of Machinery and Manufacturers*.

Interestingly, the ideas of Owen and Babbage took almost 100 years to take hold in the United States. Their contributions came to light as the Industrial Revolution took root and as modern capitalism succeeded. Concerns about issues of material and human inefficiency were exacerbated as competition increased. A new focus developed on cutting costs and increasing efficiency. For the first time in the history of civilization, the standard of living rose due to the increased productivity and efficiency of corporations, outside of the ravages of war, and theories of management began to develop and form discrete bodies of knowledge.

The Classical School of American Management

The brilliant German sociologist Max Weber (1864–1925) is credited with predicting the rise and significance of a managerial class created by the Industrial Revolution. Weber (1905) is most famous for coining the term “bureaucracy” to describe the characteristics of the newly emerged capitalistic structures. He real-
ized that these new entities were growing beyond the control that could be exerted by the owners of the capital investment. A decision-making process was required that could be placed in the hands of a capable managerial class. For Weber, the expansion of the well-educated class of professional managers hired for their skills was inevitable, and he predicted that professional managers would bring a form of organizational decision making he described as “rationalism” to modern organizations (Weber, 1905, p. 5). The need for rationalism was brought about by the complexity of modern bureaucracy and implemented through a professional class of managers to provide a basis for organizations to enhance productivity and efficiency. This rationalism as a component of the organizations Weber observed was in contrast to earlier organizational forms that developed in the first stages of capitalism that followed the Industrial Revolution. During those stages, one person, primarily the owner of the enterprise, made all the technical and business decisions (Weber, 1905).

Weber’s work provided the framework for a Classical School of American management. The Classical School described organizations as a totality of structures and functions yielding a desired output. Weber characterized the components of bureaucracy as follows: hierarchical structure, division of labor, rules and technical competence, management separate from ownership, position accounts for power, and formalized record keeping. While Weber’s list of characteristics has often been interpreted to mean that bureaucracies should include these components, he intended his list only to be descriptive rather than prescriptive (Aldag and Stearns, 1987).

As American capitalism became firmly rooted in the 1900s, the organization forms needed to house the massive production required to fuel the rising appetite for consumer goods became a focus of some of America’s most influential corporate executives. Sloan of General Motors, Vail, who developed American Telephone and Telegraph, and Teagle of Standard Oil, all advocated decentralization. Sloan (1964), perhaps more than any other writer, influenced the manner in which most American organizations are conceptualized and run to the present day. He wrote (to a lesser extent as did Vail and Teagle) that decentralization, where each unit is its own profit center, is the appropriate way to structure capitalistic enterprise.

Prior to Sloan’s conceptualization of the modern American corporation (exemplified by Cadillac Motor Cars and Chevrolet Motor Cars, among others), the basis for a manufacturing structure was solely to increase efficiency through standardization of unit production, a concept that was attributed to the mechanical genius of Henry Ford. In 1908, Ford produced the Model T car for mass consumption. Each vehicle took 12.5 hours to manufacture. Just 12 years later, the same car was produced in a fraction of that time (Stoner, 1995, p. 29).

Sloan realized that while standardization had its merits, always producing the cheapest and most efficient brand left consumers little choice. He felt they would pay a premium for more variety (Bell, 1973, p. 277). As Chandler observed in his 1962 classic, Strategy and Structure, which studied 100 of America’s largest companies, “structure follows strategy,” a fact attributable to Sloan’s impact.
The writings of Henri Fayol (1841–1925) and Chester Barnard (1886–1961) are also found in the Classical School. Fayol, a French mining company executive, viewed work in terms of functional divisions: task, authority, discipline, command, direction, equity, initiative, and morale (Aldag and Stearns, 1987, pp. 35–36). He made no attempt to apply his descriptions, but sought to offer categories for the classification of events within emerging organizations of the industrial world.

Chester Barnard wrote *The Functions of the Executive* in 1938. The book is credited with paving the way for the behavior revolution (McCurdy, 1973). Barnard addressed many issues in his book that are still a focus of managers today. These issues include the following: equilibrium, incentives, participation, decision systems, and the preconditions necessary for subordinates to accept authority (Barnard, 1938).

Barnard was president of New Jersey Bell during the late 1920s and 1930s. Later, he headed the Rockefeller Foundation. After the U.S. stock market crash of 1929 and for the decade during the depression that followed, the New Jersey Bell company never failed to pay a dividend, even though its workers were not given pay raises. As a result, some scholars, such as Charles Perrow (1972), feel some of Barnard’s work is disingenuous. They believe that Barnard was writing his book to placate employees for the harsh actions of corporations in the late 1920s and 1930s.

Whatever the motivation for Barnard’s view that the organization is a “cooperative system” where authority resides in a subordinate’s ability to accept or reject orders, his impact on the field of management thought was monumental. He is often cited as the most referenced management theorist. Barnard’s “acceptance theory” outlined the obligation an organization has to provide a context for subordinates to accept authority. According to Barnard, four conditions must be met for employee acceptance: 1) subordinates understand the order, (2) subordinates see the order as consistent with the purposes of the organization, (3) the order is compatible with their personal interest, and (4) subordinates are mentally and physically able to comply with the order (Barnard, 1938; Aldag and Stearns, pp. 39–40).

Herbert Simon (1957), the last writer discussed here, in conjunction with the Classical School, credits Barnard with focusing his thinking on the manner in which decisions were made within organizations that grew and prospered in the hundred years before he set forth his Nobel prize-winning theories on decision making in his volume *Administrative Behavior*. The impact of Simon’s work is evidenced by the continued demand for the book, which is now in its 10th printing and celebrating its 50th anniversary.

Prior to Simon’s work, decision-making theory had its roots in the discipline of economics. The central point of the economic models of decision making is the notion of “rational self-interest.” Individuals are seen as capable of selecting among a variety of known alternatives and to make a selection from an array of alternatives which maximizes the gain of the decision-maker.

Simon forever changed the face of modern decision-making literature, research and practice by pointing out that so much information is available that the quest for more and more information could be never-ending. At some point,
the amount of information garnered would overwhelm the capabilities of any individual or group to analyze it and make a decision that was known to maximize gain. In other words, as Simon states it, the capabilities of individuals (and groups) are bounded (pp. 88–89). Therefore, one must start with the premise that during the decision-making process, rationality is bounded.

Coupled with the notion of bounded rationality is Simon’s notion of “satisficing” (pp. 119–120). That term indicates that since it is not possible to evaluate all the alternatives, the decision maker must select from among those alternatives that appear to meet the objective. Since one cannot (or perhaps better stated, would not) know the maximal objective in many decision-making circumstances, one selects an alternative that leads to a less-than-maximal result; one selects the option that “satisfices.”

The Scientific Management School

A major movement that paralleled the Classical School of American management was the Scientific Management School. The founder of this discipline was Frederick W. Taylor (1856–1915). Taylor was a self-taught engineer who utilized time-and-motion studies to find “the one best way” to enhance productivity. “Taylorism” has been quite controversial from its inception to the present day. Taylor worked as a chief engineer at the three largest steel companies in the United States between 1880 and 1915. The unions were fearful that his methods would lead to layoffs, and Taylor was compelled to testify before Congress. In his testimony, Taylor clearly sided with the employee position and expressed his belief that any earnings resulting from increased efficiency and productivity should be shared with the worker.

Although Taylor has been criticized for dehumanizing work based on his focus of matching physical traits to job performance, it is clear that Taylor's
interest was in reducing the fatigue that results from manual labor and repetitive
tasks. In the latter instance, Taylor was an advocate of cross-training to reduce
fatigue and boredom. Although Taylor has been attacked for falsifying much of
his empirical data, in The Principles of Scientific Management (1911), there is no
doubt that his methods revolutionized the United States' steel industry and that
his approach to management has remained a critical component of American
management's attempts to increase productivity and efficiency through time-and-

One of Taylor's disciples is particularly interesting, Lillian Gilbreth. Few
women, when compared to men, have been recognized as influential in the develop-
ment of American management thought. One notable exception was Lillian
Gilbreth. She and her husband, Frank Gilbreth, expanded Taylor's ideas about
"the one best way" to complete a task to include the effects of motion and fatigue
on task performance. They believed that where worker fatigue or boredom could
be reduced by lessening the number of steps in a task a worker performed, or by
rotating assignments for a worker performing repetitive manual work, that a
worker's productivity would increase. Lillian Gilbreth, a gifted scholar, focused
her academic research on training methods to reduce fatigue and boredom. In
1914, when her doctoral thesis, The Psychology of Management, was published,
the publisher required that the author be listed as "L.M. Gilbreth" to avoid the
reference to her gender (p. 43). Nonetheless, Gilbreth's observations expanded
Taylorism to address more systematically the human needs of workers.

The Human Relations School

From the late 1920s extending into the early 1930s, the work of Elton Mayo and
his associates, F.J. Roethlisberger and W.J. Dickson from the Harvard Business
School at Western Electric's Hawthorne plant in Cicero, Illinois, created a revo-
lution in the field of social science in general, and management studies in partic-
ular. An indirect ramification of the scientific management approach was a
negative reaction to what was perceived as the school's less-than-dignified treat-
ment of human labor. Thus, it is not surprising that this next period in American
management was dominated by a highly humanistic focus.

Mayo (1880–1949), Australian-born and educated as a psychologist, is con-
sidered the founder of the Human Relations movement. Mayo and two of his col-
leagues on the faculty of the Harvard Business School, Fritz Roethlisberger and
William Dickson, were called in to the Hawthorne plant of Western Electric in
1927 to investigate some unusual findings (Mayo, 1945; Roethlisberger and
Dickson, 1939). Vernon and Wyatt, two industrial psychologists employed by
Western Electric, were investigating the effects of noise, light, and humidity on
20–23).

Not surprisingly, Vernon and Wyatt found that productivity increased when
room lighting was improved. However, what most surprised them was that pro-
ductivity also increased when the lighting was decreased below its initial point in
the experiment. Further, after Mayo and his associates arrived, the research found
that when employees had input into the scheduling of their rest breaks and other
similar types of activities, their productivity also increased. The authors labeled these findings an “emotional chain reaction” (Mayo, 1945) and concluded that the social interactions at work in all human relationships provide a source of satisfaction on the job, leading to productivity gains (Boone and Bowen, 1987; Matteson and Ivancevich, 1996; Aldag and Stearns, 1987).

As Aldag and Stearns (1987, p. 47) point out, the “Hawthorne effect” has been misinterpreted to mean that productivity rises whenever one pays attention to workers. Actually, the Hawthorne effect refers to the fact that productivity also increased in the control group. It is important to note that the control group was informed of its role in the study. Thus, the work of Mayo had two broad implications for social science. The first was that social science experiments needed to be better designed to prevent contamination of control group effects. The second implication was the realization that productivity can be dramatically affected by simply paying attention to the worker. Some scholars suggest that the timing of the Hawthorne study, which took place prior to and during the Great Depression, accounted for the gains in productivity, given workers’ fears about losing their jobs during that tight economic period. Far more scholars, however, have concluded that attention paid to the worker is more important to him or her than pay and working conditions in most instances (Herzberg, et al., 1959).

The impact of Mayo’s work cannot be underestimated. It shifted the emphasis from the mode of production to the psychological needs of individual workers as the compelling force behind efficiency and productivity gains. Many scholars and practitioners took note of Mayo’s work and the literature devoted to human relations proliferated.

A female writer who was particularly influential during this time frame was Mary Parker Follett. Follett was a leading exponent of human relations principles. Based on her experiences as a social worker in the 1920s, Follett believed that the productivity of the industrial organization depended upon an understanding of individual and group motivation. She focused her writings on the effects of control, participation, conciliation, leadership and conflict on individual and group behavior. In 1940, Luther Gulick, credited as the founder of the school of public administration, edited Dynamic Administration: The Collected Works of Mary Parker Follett. That book was a compilation of her observations about the necessity to humanize the workplace to increase productivity, and it was based on a series of her major papers. The issues Follett raised in her papers regarding the effects of control, participation, conciliation, leadership, and conflict on individual and group behavior are still relevant to current organizational research efforts (McCurdy, p. 49).


During the Human Relations period, McGregor (1960) postulated his well-known Theory X and Theory Y, whereby he argued that workers will be more productive in conditions where management strives to demonstrate its belief that