History of Organizational Psychology FREE

Helio Carpintero, Universidad a Distancia de Madrid

https://doi.org/10.1093/acrefore/9780190236557.013.39
Published online: 27 February 2017

Summary

Organizational psychology represents an important theoretical and practical field of contemporary psychological science that studies mental and behavioral phenomena that take place in individuals and groups belonging to social organizations.

From a historical point of view, the roots of this specialty can be traced to the psychological approaches to the world of industry and work that began to appear in the beginning of the 20th century. The discovery of the relevance of individual differences in both mental and behavioral processes paved the way to the creation of a scientific and technical knowledge that could maximize an adaptation of humans at work that would benefit industrial activities, would increase worker satisfaction, and bring progress and peace to all of society.

Such specialized knowledge has evolved during the past century through a series of stages that permitted a growing theoretical complexity and more efficient technological interventions. This evolution of basic topics includes the study of the human operator; humankind's capacities and abilities; the influence of social factors upon people in the workplace; and the structures of all sorts of organizations created to obtain desired and needed goals. The relevance of social powers influencing the world of labor have made possible the creation of a rigorous and complex body of scientific knowledge that continuously provides information, advice, and help to modern society in its economic, social, and political structures.

Keywords: history, organizational psychology, industrial psychology, work psychology, humans at work, industrial-organizational psychology

Subjects: History and Systems of Psychology, Organizational and Institutional Psychology

Introduction

Organizational psychology (OP) is a psychological specialty that deals with the application of scientific concepts and interpretative models, consisting of devised technological interventions, upon mental and behavioral aspects of manmade organizations within modern societies.

It is today generally accepted that such a discipline covers approximately the same field that is also signified by the terms of "industrial psychology," "work psychology," "I-O psychology," and similar areas of study. Here we adopt the one that has a convenient degree of generality. It takes, as its proper subject matter, social entities that may be considered organizations, whatever might be the nature of their constituent members.

“Organization” refers to a complex entity that contains a plurality of elements or members, forming a unity and operating as a certain whole that endeavors to reach some goals or ends, which represent the basic reason for its existence. (Its etymological root, the Greek *órganon*, signifies an instrument or means for attaining a certain goal.)

A well-known definition sees social organizations as “role systems,” with interrelated people operating according to certain norms and looking for certain desired and valued goals (Katz & Kahn, 1966). Social organizations have been implemented over time to obtain a large variety of results. Among them are hospitals, universities, newspapers, factories, trade companies, and so on. Each one includes certain working members, a leading group, a communication system, and definite goals to achieve with media and procedures. All of them are serving social needs and being supported by certain resources and supplies.

Most of the present-day life of society is mediated by organizations whose behavior is largely influenced by psychological factors. Once established in the late 19th century, the new science of psychology and its theorists and researchers, although primarily interested in scientific questions on the human mind and its biological basis, felt themselves forced to respond to the social demands for help from laypeople.

Problems that were arising in the industrial social network were of utmost importance. The industrial revolution had taken place in Western countries in the early decades of the 19th century. In order to attain a better adaptation to practical needs and actions, societies created organizations based on principles of impersonal work, labor division, cooperation, and competent leadership. Developed nations were based on masses of people operating under the leadership of certain elites that ruled countries. Natural science, gaining a growing control of the physical world, gave birth to a technology that enabled humans to create a world always based on human industry. This was a major revolution in Western societies. Their populations grew rapidly, industry favored urban life where factories were, and new demands appeared in need of solutions.

An artificial and technical world replaced the previous “natural” and “patriarchal” one. Power spread out in democratic societies, although fortunate men who had means and financial resources became the dominant class, imposing their will on the larger and less fortunate parts of society; this notwithstanding, the latter was capable of developing an enormous force and resistance through its unions. The class struggle characterized the typical climate of the 19th century in the more industrialized countries, the United Kingdom, France, the United States, and Germany being dominant. When conflicts and violence appeared in their powerful and productive organizations, management and owners tried to protect their own power, and many of them looked to science in search of a solution (Benjamin & Baker, 2004). Then psychology became, little by little, a very effective instrument in reconciling contrary viewpoints.

The history of organizational psychology is deeply rooted in the process of growth, increasing complexity and richness of both economic and industrial structures in our modern world.

Psychology Applied to Work Settings and Individuals

At around the turning point of the 19th century, psychology was in its early stages, and its cultivators were being asked for help by people suffering from behavioral and mental problems. Wilhelm Wundt (1832–1920) had initiated a new epoch in Germany in the study of mental life and conscious experience and applied the experimental approach of physiology laboratories to these questions, instead of philosophical reflection. Psychological functions came to be analyzed in an objective and empirical way, discovering, piece by piece, the basic laws governing the human mind.

The relevance of individual differences among subjects was soon apparent. The pioneer work in Britain of Sir Francis Galton (1822–1911) that was soon followed by some of his disciples showed the possibility of measuring mental qualities through the application of some instruments and tests. This research paved the way for a psychotechnology focused on human subjects, looking at their traits, abilities, and deficiencies, and trying to determine their personal profiles in a new and scientific approach.

All sorts of people benefited from this new psychology. For instance, children profited from the new science of mind, as their capacities, intelligence, and degree of aptitude for schooling could be objectively assessed. Educational psychology worked to adapt students to the classroom environment. It also helped to make the aims of education more defined and objective, although social criticism was raised against an interpretation of intelligence as a fixed entity, totally dependent on heredity (Gould, 1981). Psychology was also soon utilized to adapt adults to their working places. This was an urgent question in a growing technological society. Here psychologists were preceded by well-trained and inspired technicians and engineers who began to analyze working behavior and elaborate a sophisticated body of knowledge.

The Scientific Study of Work Organizations

Industry was seen in the 19th century as the backbone of a nation’s economy. Conflicts inside industrial settings were a continuous menace that required attention from governments and the ruling classes. European workers had learned from Karl Marx (1818–1883) and other reformers that class struggle was an efficient means for getting their economic demands satisfied by owners. The International Workingmen’s Association (or First International) was established in 1864, and the Socialist (or Second) International was founded in 1884 (Stavrianos, 1991, p. 513). The economic world and workmen’s behavior were in need of scientific-based solutions that would end the violence. It brought to the fore the question of work rationalization and the analysis of all factors implied in the production process.

Although organizations and groups were largely dependent on individuals, they exhibited characteristics and properties of a structural nature that required specific treatments. The British mathematician and engineer Charles Babbage (1791–1871) was a pioneer in asking for scientific analysis of enterprises and industrial settings. Some other U.S. scientists and engineers like Henry Metcalfe (1847–1917) and Henry R. Towne (1844–1924) initiated three different lines of

exploration on this topic: (1) the study of the scientific organization of work; (2) the study of the formal organization of enterprises; and (3) the social theory of bureaucracy. It has to be noted that the first steps in our discipline's history were made by engineers who were deeply engaged in man/machine interactions and problems (Rodríguez, 1992).

The Study of the Scientific Organization of Work

A. D. Chandler pointed out that in American industry, the economic depression of the 1870s brought about a new interest in manufacturers, not because of technology but rather for organization techniques within firms and factories. This change precipitated the beginnings of the scientific management movement in the U.S. (Chandler, 1977, p. 272). The American Society for Mechanical Engineers was created in 1880 to face the problems raised by growing industrialization.

Soon after, in 1886, Henry R. Towne maintained that engineers' responsibility was not only in the technical aspects, but also in the management of people in production. Such ideas became very influential on Frederick Winslow Taylor (1856–1915), who developed the Taylor System and the core ideas of management in his *Principles of Scientific Management* (1911) and other well-known books (Taylor, 1947).

Striving against inefficiency, he analyzed all the productive processes with a scientific methodology. Although not a psychologist, he applied psychological techniques such as reaction-time measures and studies of movement and cooperation among workers, trying to find rationalized working procedures that would combine attractive salaries and incentives, personal satisfaction, and greater efficiency. He offered prescriptions for better results at the risk of being judged as an inhumane manager. In essence, he proposed the continuous presence of managers on workers in a way that actively combined knowledge, management and direction with physical capacities, energies, and mechanical efforts. A sort of mechanization was imposed on everybody, including managers, in the name of reason. The enterprise, as a real unit, worked thanks to the complete cooperation of all its members.

Taylorism became both a success and a threat; in any case, it was seen as a controversial theory. Workers' associations and critics rejected it as inhumane, while technicians and managers were in favor of it. Many distinguished researchers became his disciples: in the U.S., Frank B. Gilbreth (1868–1924), Lillian M. Gilbreth (1878–1972), and Henry Gantt (1861–1919); in France, Charles Bedaux (1886–1944) and Henry Le Chatelier (1850–1936); in Russia, Aleksei Gastev (1882–1939), among others. All of them founded the Taylor Society in 1915 and, in 1923, the Council on Scientific Organization of Labor; it promoted several international conferences that analyzed all sorts of details of the productive process and largely contributed to the development of scientific management (Mallart, 1942; Kliksberg, 1975).

The Study of the Formal Organization of Enterprises

The study of individuals was not enough for solving all the problems encountered within companies. French engineer Henri Fayol (1841–1925), author of *General and Industrial Management* (1916), conceived the idea of an enterprise as a whole operating system, whose efficiency had to be raised to its highest level (Scheid, 1987). Such a goal was to be achieved through the governance, order, and control of such units, what he called their "administration." This function required the accomplishment of many different tasks that were to be fulfilled in accordance with some principles governing the system (Kliksberg, 1975).

Fayol's work tried to clarify the role of management and the need for competence and authority in organizations, far from any ineffective democratization. But his final model seemed to be an ideal construction that was far from effective, and its distance from the daily work of real enterprises was criticized by D. McGregor and other, later theorists.

The Social Theory of Bureaucracy

A further step in these types of studies on productivity and the formal traits of an enterprise may be represented by the bureaucratic theory of management, due to the German sociologist Max Weber (1864–1920). He, as part of his extraordinarily deep studies of society, economy, and *Weltanschauung*, and partly inspired by F. W. Taylor's ideas, approached the analysis of social organizations as hierarchically built bodies, operating under impersonal and standardized procedures strictly followed by their members who operate at various levels and are charged with differential responsibilities and power. This is the "bureaucratic managerial model" that was widely influential in the field. Within it, emphasis had been placed on the traits of rationality, objectivity, formal rules, and well-defined methods, all based on the types of tasks to be accomplished, with an abstraction of its members' personal qualities (Mouzelis,1968; Peiro, 1983).

The Human Subject at Work

The active man was at the core of all these problems of human performance at work, and psychology, as a new scientific knowledge of humans, began to be considered. At the beginning of the 20th century, this new science offered a plurality of perspectives—structuralism, functionalism, reflexology, and psychoanalysis. At the same time, some applied knowledge began to grow. German professor William Stern (1871–1938) defined this by its "practical utility." Applied interventions required a previous assessment period (*Psychognostik*) and a correlative procedure (*Psychotechnik*) based on knowledge gained (Dorsch, 1963; Rüegsegger, 1986).

Man-at-work problems were soon considered a psychological matter. Scientific research seemed to offer a valuable alternative to class-struggle options. Different facets began to be examined (Quintanilla, 1992). For instance, the study of worker fatigue made by Italian physiologist Angelo Mosso (1846–1910) suggested some measures to improve work rhythm and performance; German psychiatrist Emil Kraepelin (1856–1926) plotted a "fatigue curve" (1900) that gave a new

dynamic view of working efforts. An initial evaluation of motives and aptitudes in young individuals applying for jobs, carried out by U.S. philanthropist Frank Parsons (1854–1908) at his Boston Vocation Bureau (1908), showed that a vocation test would benefit the professional adaptation of subjects through an effective process of personal guidance. Mechanical carriages began to invade modern life, bringing perils to city streets because of poor and unskilled drivers; concrete studies on people's driving abilities began to be made everywhere. German researchers Walter Moede (1888–1958) and Curt Piorkowski (1888–1939) provided some useful tests for detecting unsafe drivers. Other types of workers, like typists, operators, and telegraphers, were analyzed by French researcher Jean Maurice Lahy (1872–1943), who added new pieces of valuable practical knowledge to professional life. Psychologists in the U.S. were asked to influence consumer behavior through the use of persuasion techniques in advertising, a field in which they became very active; Walter Dill Scott (1869–1955) and Harry Hollingworth (1880–1956) did very important pioneer work on that topic.

It was Hugo Münsterberg (1863–1916), the German "father of psychotechnology," who was the first to face the problematic field in its entirety and find a certain solution. He conceived it (*psychotechnik*) as the "science of practical applications of psychology in the service of culture" (Münsterberg, 1913, 1914). From a functionalist perspective, he devised tests and testing situations that measured people's abilities relative to a certain job and favored an empirical-based personnel selection process. Person, situation, and means-ends relationships were the basic elements to consider in every practical intervention, and these were also the three factors interacting within the test. Simulated situations would allow evaluation of a subject's abilities and his reaction type, in a way that could allow predictions of his behavior in real circumstances.

In a parallel way, other colleagues, working on learning capacities in schoolchildren, had discovered ways to assess "intelligence" as a general ability to acquire knowledge. Its evaluation proved highly useful for an estimate of one man's learning capacity and practical potentialities. French researchers Alfred Binet (1857–1911) and Victor Henri (1872–1940) created a metric scale of intelligence, and British Charles Spearman (1863–1945) mapped human abilities and their interrelationships. On these grounds, German psychologist William Stern (1871–1938) coined the concept of the Intelligence Quotient (I.Q., the ratio of mental age to chronological age) that soon appeared as a good predictor of future performance in academic and daily settings. World War I, as we will see, furthered testing procedures and put psychology "on the table," as J. McKeen Cattell said.

The Impact of World War I

As an enormous social proof of psychology's efficacy, World War I (1914–1918) showed that psychologists were able to test a large number of soldiers and, based on such tests, assign them to better-defined jobs. This selection process enormously favored the efficiency of the armies of various belligerent countries and, in some cases, it was accompanied by clinical interventions.

In the U.S., a group of psychologists from the American Psychological Association (founded in 1892) led by its president Robert M. Yerkes (1876–1956) worked out a battery of tests ("Army Alpha" and "Army Beta") that proved to be very effective in assessing men. Another group, led by Walter Dill Scott (1889–1955) and Walter V. D. Bingham (1880–1952), with other outstanding psychologists such as J. B. Watson, E. L. Thorndike, and Lewis Terman, worked on personnel classification with excellent results (Katzell & Austin, 1992). In the clinical field, Robert S. Woodworth (1869–1962), built his "personal data sheet" (1918), a pioneer effective questionnaire for the detection of war neurosis in people.

Similar efforts were carried out in other countries. In Italy, Father Agostino Gemelli (1878–1959) examined pilots, and in France, doctors Jean Camus and Henri Nepper (1915), and in Germany, W. Stern (1916) did similar work. All these efforts represent the beginning of aviation psychology. Many new centers for selection and guidance were then created and benefited from that military experience and from the instruments produced for the war. Let us mention here the Laboratory for Industrial Psychotechnology from Charlottenburg (1918) in Germany; the Industrial Fatigue Research Board (1917) that was soon to become the National Institute of Industrial Psychology (1921) directed by Charles S. Myers (1873–1946) in the U.K.; the Institute of Professional Orientation of Barcelona (Spain, 1918); and many others. The time was also ripe for training professionals in specialized university centers; for instance, in the U.S., the Division of Applied Psychology was established at the Carnegie Institute of Technology (now Carnegie-Mellon University) in Pittsburg that turned into one of the leading research centers in the field; it was headed by Walter V. D. Bingham who was accompanied by W. D. Scott and other well-known specialists. Also, other private centers began to be created; Scott himself founded the Scott Company in Illinois in 1919, a pioneer consulting firm in the psychology of advertising and personnel selection; James McKeen Cattell (1860–1944) created The Psychological Corporation (1921), with analogous purposes, that was very active for more than half a century (Katzell & Austin, 1992). All these movements clearly revealed the vitality of this new field. Practitioners began to be hired by administrations, military services, and private industry; new concepts and mechanisms were added to previous ones (Koppes & Pickren, 2007).

Testing and interventions grew endlessly in the 1920s and 1930s (Salgado, 2001). Important journals were also created: *Journal of Applied Psychology* (1917), *Journal of Personnel Research* (1922), *Industrielle Psychotechnik* (1924), and many others. In all types of industrial and practical settings, knowledge of the human factor became indispensable.

The worker, his abilities, and his psychophysical constitution became central topics among applied psychologists, who could then give useful advice to workers and employers in order to achieve more efficient work practices. They also paid a lot of attention to the basic dimensions of individual human differences that built the framework for other phenomena, like the fatigue effect, the wellbeing of the worker, more effective selection procedures, job analysis, and the study of time and motion in working activities, as salient factors in this applied field. Typologies and profession descriptions and analyses were among the main benefits.

The Human Relations Model and the Study of Groups

Early psychotechnology tried to solve all sorts of conflicts in the job/person adaptation by comparing the psychological capacities of a person to the necessary functions for productive work. But unexpectedly, informal aspects of organizations and the interactions of members inside a group appeared as highly salient factors influencing productivity and became major objectives for research.

Some studies on work efficiency carried out among employees of the Western Electric Co. in Chicago, Illinois, between 1924 and 1932 offered a new perspective on the field. In a large series of experiments conducted between 1924 and 1927 by researchers at the company and the National Research Council of the National Academy of Sciences, they tried to determine the effect of workplace illumination on productivity, with poor results. In 1927, a group from the Harvard Business School headed by George Elton Mayo (1880–1949) with Fritz Roethlisberger (1898–1974) and William J. Dickson studied a sample of women working in a relay assembly test room—both an experimental and a control group; they were measured on certain tasks: for instance, manipulating telephone relays in special settings, while they were subjected to different stimuli changes. In the end, the data gathered seemed to imply that group efficiency was minimally affected by variations in physical factors in the workplace, while changes in social variables, such as informal rules, leadership, social climate, expectations, and fears, as well as the researchers' attention to subjects, seemed to have a large effect on group productivity (Mayo, 1945). Although harsh criticism ended these studies on the grounds of some ethical and methodological flaws (Adair, 1984), psychologists began to put the emphasis now on human relations in industry, stressing the importance of a holistic approach to work problems. Attention was now paid to the social dimensions of the production process, and researchers were urged to take into account the "human value" of work.

Most of the contributions made by the Chicago school on social problems are characterized by the attention paid to environment, mainly seen as a social network to be analyzed in terms of member interactions, all members belonging to one effective totality. There the anthropologist William Lloyd Warner (1898–1970) with J. O. Low, working on modern urban life, wrote about the factory in connection with society, whose extra-organizational variables (technological and market changes, religion, race, and social class) threw light on productive processes. Detailed study of many types of interactions, mainly through interviews and surveys, would permit an understanding of work from a human perspective.

A great and newer impulse to this holistic perspective proceeded a few years later from the contributions of Kurt Lewin who immigrated to the U.S. from Nazi Germany. But it benefited also from other important sociological contributions, like Weber's bureaucratic model of management.

The Influence of World War II

World War II (1939–1945) deeply changed the scenery of historical life, including psychology. In accordance with the experiences of World War I, the involved armies required rapid selection of people for all sorts of jobs, and convenient tests were applied by psychologists according to their acquired competences. In Germany, the assignment was done by a military psychology (*Wehrmacht Psychologie*) created in 1925 (Geuter, 1992, p. 199), while in the U.S., a group of psychologists created the Army General Classification Test (AGCT), a group test for intelligence that was given to more than one million people.

After the war, many changes took place in the social context: U.S. psychology raised itself into a leading place that previously had been in European and mostly German hands; veterans returning home were in need of mental help and care, and many clinical psychologists were needed. Of course, many countries had to rebuild their economies, specifically the losing ones. The U.S. government implemented a very successful world plan for the recovery of the destroyed nations' economies (the Marshall Aid Plan, 1947), not without some criticisms about priorities and the possible predominance of U.S. policy over the European economy. Finally, an international confrontation between communism and capitalism, in both politics and economy, marked out the new era. New social phenomena then appeared: the "welfare state" (the state subsidizing disadvantaged people); and demands for egalitarianism, new forms of leadership, and work rationalization (Shimmin & van Strien, 1998). New technologies of information and communication rapidly began to change most human activities. Computers, whose roots can be traced back into the early 20th century, had already played an important role in the days of war (Colosus, 1943, in the U.K.; ENIAC, 1945, in the U.S.), but soon after the advent of peace, they were introduced into industries and administrations (e.g., UNIVAC I, 1951, in the U.S.) where they grew in an exponential way, widening the possibilities for operative work.

The Expansion Period

Man/machine problems had characterized all sorts of industrial activities and gave rise to industrial psychology as a specialty for many professionals. New types of economic structures began operating all over Western countries, giving a great shot in the arm to economies. In 1951, the European Coal and Steel Community was founded, and a few years later, the Treaty of Rome set the basis for the Common Market—or the European Economic Community (EEC), which would become the seed of the present-day European Union. New potentials emerged for trade and industry. U.S. companies entered the European arena, and an enormous economic change took place in all fields, largely due to the new "American trial," as it was then called (Servan-Schreiber, 1967). New terms forcefully emerged at that time: organization and organizational. The area of industrial activities was widened to receive those productive groups mainly operating with information and communication. Industrial *and* organizational psychology became the new discipline that has continuously grown since then. It symbolized the new zeitgeist. *Annual Review*

of Psychology reviewed organizational studies for the first time in 1961. Significant books revealed the new inspiration: for instance, C. Argyris (1957), *Personality and Organization*, J. G. March and H. Simon (1958), *Organizations*, and E. H. Schein (1965), *Organizational Psychology*, among others.

New emphasis on organizations and management and their major tasks were studied by Peter Drucker (1909–2005) in his *The Practice of Management* (1958) and in many other works. Topics like direction, leadership, new forms of producing goods, and problems of worker adaptation to the new world demanded a deeper scientific understanding. Above all, the viewpoint related to individual differences that dominated industrial studies was now complemented by other research oriented toward group and social levels of phenomena (Porter & Schneider, 2014).

Among the most influential directions in these studies, according to some specialists (Peiro, 1983), were (1) the sociotechnical and holistic perspective, (2) the humanistic and motivational approach, and (3) the cognitive view of decision processes.

The Sociotechnical Perspective

This doctrine stressed the importance of technology in all work processes. Its influence on social adjustment and the wellbeing of workers reinforced the view of organizations as systems in which a continuous interaction takes place between instruments and human operators.

In the U.S., an important group developed under the inspiration of U.S.-German-born Gestalt psychologist Kurt Lewin (1890–1947), who emigrated from Germany. He was first at Iowa working on child behavior, and then at MIT, from where he moved to the University of Michigan, where he carried out a Gestalt-type research program on social groups and organizational behavior. He considered human situations, including working ones, as totalities determined by forces mediating man/field interactions, always taking place inside a certain field. Behavior's efficiency was largely determined by the organizational climates in families, schools, and enterprises. Leadership, the need for achievement, and levels of aspiration appeared as important factors influencing group efficiency, self-esteem, and satisfaction. He differentiated three possible climates within a group—authoritarian, democratic, and laissez faire—and then, with his collaborators R. Lippitt, and R. K. White (1939), he evaluated their effects on various social environments.

An important development of these ideas was the theory and practice of group dynamics, which focuses on processes occurring either within a group or between groups. Operating forces, changes over time, the phenomena of leadership, communication, pressure, and resistance to change were some of the topics considered in his work; salient work in this field had been carried out by Dorwin Cartwright, Leon Festinger, and Murry Horwitz, among others (Cartwright & Zander, 1974). The war experience provided an opportunity to study social attitudes and group mentality in *The American Soldier* (1949) by Samuel A. Stouffer (1900–1960), taking the army as an idiosyncratic organization (Rodríguez, 1992) very different from industrial ones.

Another movement, also inspired by Lewin's Gestalt ideas, focused on the T-groups, or training groups, and was carried out in the U.S. at the National Training Laboratories in Bethel, Maine, in 1947. Here, the group dynamics were the center of attention, in order to create and strengthen team spirits and creative thinking when orienting a conflict situation and implementing a certain "people game" with rules and roles that imposed "objectivity" on the group. Some of these techniques had paved the way to the study of a more general field, organizational development, and its search for better ways to fortify a certain organization, consolidating the network of interactive relationships (Hollway, 1991, p. 112).

In the U.K., an influential psychoanalytic group, the Tavistock Institute (London, 1947) was created to provide clinical treatment for people suffering from the effects of war, employing technological interactions. Wilfred R. Bion (1897–1979) tried to analyze and modify the "group mentality," made up of attitudes, desires, and expectations. Work activities, such as a project on coal mining, were examined by Eric L. Trist (1908–1993), who emphasized the role of interactions between instrumentation, attitudes, and productivity in that process . It has been noted that some studies of Elliott Jaques (1917–2003) at the Glacier Metal Co. (1951) could be viewed as laying the foundations for the action-research methodological model (Shimmin & van Strien, 1998); other researches on urban organizations, like those made by William F. Whyte (1914–2000), widely used the same "participative" model to understand social groups from the inside and combine theory and practice.

Humanistic Psychology

Another line of theoretical development in the field was due to humanistic psychology, the so called "third force"—in-between behaviorism and psychoanalysis. In it, the motivational aspect of personal behavior was widely considered. Abraham Maslow (1908–1970) is one of its most representative figures. He stressed the importance of motivation in governing human behavior and presented, by means of a well-known pyramid, a hierarchy of motives (from physiological on the bottom to self-actualization on the top, through security, belongingness, and self-esteem). Groups and organizations provide people with security, belongingness, and membership. Nevertheless, each person also feels the need for developing his/her own personality and experiencing a sense of plenitude and happiness that should be reached within the organization itself. But organizations might be considered on many occasions as a limiting factor when a conflict breaks out. They should take into account such necessities, humanizing all interactions.

These ideas received great attention from another theoretician, Frederick Herzberg (1923–2000), who built a motivation-hygiene theory, in which human motivation is seen as having a double process, one of satisfaction and one of dissatisfaction, both unrelated and independent. The former relates the job to personal motivation (e.g., interest, values, and self-growth); the latter, on the contrary, relates to context dimensions (company policy, work conditions, and so on) that do not produce satisfaction but can bring about dissatisfaction if they are not conveniently disposed, in a kind of preventive or "hygienic situation." People have to learn to balance them in order to keep the whole working process running at a realistic level.

On these grounds, different aspects of the problem have been considered, adding new elements to it. Several theoreticians have developed salient contributions. Let us mention here those of MacGregor, Likert, and Argyris as representative of this way of thinking.

Douglas MacGregor (1906–1964) compared two basic ways of being a human in an organization, what he called theory X and theory Y, two different managerial styles. He called theory X the "classical" one, maintained by Taylor and others, according to which work is undesired by humans, who must accomplish their tasks always under supervision and evaluation from others. Theory Y, to the contrary, considers humans as self-directed operators, impelled by their own desires for self-esteem and self-actualization and looking for personal happiness achieved by creative realizations. MacGregor is well aware of the idealization implied in such a theory, but he considers it as an instrument for reaching the Y situation. Such managerial style would promote higher values of humanity in the world of work.

Rensis Likert (1903–1981), once head of the Institute for Social Research at the University of Michigan, found that productivity was largely based on the managerial style adopted in enterprises. Deeply interested in measurement techniques and their applications to attitudes, he developed some aspects of the Lewinian intellectual legacy. He differentiated four leadership styles—exploitative authoritative, benevolent authoritative, consultative, and participative—with totally different results, the last one being the most beneficial for members and the organization as a whole, as it promotes group cooperation that permits it to attain far-reaching goals.

Last but not least, Chris Argyris (1923–2013) maintained the idea of an organization as an open system interacting with its environment (in accordance with L. von Bertalanffy's "general systems theory"), adapting its goals to the demands from its administration. A degree of excellence would be reached when its members obtain personal enrichment. In such conditions, deviant or faulty behaviors do not take place, and productivity rises to higher levels.

Cognitive Studies on Decision Processes

A third line of studies has relied on the cognitive processes of decision-making and the various rationality degrees that may inspire managerial decisions. Practical decisions are not always based on pure logic due to other factors, such as experience and motivation (Lord & Maher, 1991). One important antecedent of such cognitive perspectives was Chester Barnard (1886–1961) in his *The Functions of the Executive* (1938). He relied on the idea that organizations, as systems of conscious activities, largely depended on the executives, whose main function was making rational, purposeful decisions in a quest for success. When making decisions, they had to combine formal rationality with informal knowledge and experience. A further and deeper analysis of the process was carried out some years later by Herbert Simon (1916–2001), a Noble Prize winner in economics (1978) and a leading researcher in sociology, economy, and computer science. He and his collaborators analyzed thinking and decision-making processes that they characterized as having a "bounded rationality." This means that problems are usually solved using explicit or tacit knowledge, without reaching the higher levels of conscious rationality. In the case of people entering into organizations to attain certain finalities, they generally tend to assume that

membership gain will be enough to compensate for the accepted group requirements (such as the case of the "administrative man"), instead of trying to maximize his profit (as the "economic man" would have done). This sort of decision would be dominant in big organizations. In order to attain certain finalities, humans enter into and remain in organizations.

Period of Consolidation

In the last decades of the past century, the process of world globalization began to emerge, but not without internal conflicts. The European Union and Western democracies, allied with the U.S., faced the political empire created by the USSR and communist regimes that divided international life with the Iron Curtain symbolized by the visible wall that divided the German city of Berlin from 1961 to 1989. Large conflicts sprang up, like the Vietnam War (1954–1975) and the Yom Kippur War between Syria and Egypt against Israel (1973); this was followed by an enormous oil crisis with deep economic consequences throughout the whole world. Moreover, U.S. society experienced the internal conflict of the civil rights movement (1955–1963), symbolized by the figure of Martin Luther King (1939–1968), that reinforced a growing humanism. An enormous technological effort was made by Western societies to lead toward historical movement; the landing of man on the moon (U.S. Apollo XI project, 1969) was to become a symbolic icon for a new era. At the same time, giant computers that had appeared during World War II became minicomputers in the 1960s and then personal computers in the 1970s and laid the basis for the internet (1990) and the current information society that has propelled the advent of effective globalization. The introduction of computers in industries and social corporations, and the internationalization of markets and operating companies required more and more flexible and complex organizations. These entities have acquired still greater significance than before in the economic and social world.

At the same time, U.S. psychology, now in the forefront of the field, experienced a great change: "cognitivism" replacing the previously dominant "behaviorism." New perspectives on the human mind were discovered as early as 1956 (Gardner, 1985), and they gave new meanings to the already established behavioral dimensions.

Both old and new paradigms had their echoes within I-O psychology. A fully cognitive organizational approach began to develop, considering both individual minds and organizations as information-processing systems managing physical and symbolic elements and making decisions for solving problems on the basis of previous information. Such activities would take place in many directions: personnel selection, social climate, leadership, and so on. J. Galbraith, K. E. Weick, and many other researchers have pointed to ambiguity as a main trait of social situations that organizations have to deal with. The study of decisions received new developments from the Nobel Prize winner for economics (2002) Daniel Kahneman (b. 1934) and his colleague Amos Tversky (1937–1996) in what they called the limited rationality that humans use to operate in uncertain or probabilistic situations because of their different expectations in concrete situations. New topics also began to emerge in the field (for instance, the influence of

values on decision-making, the skills needed for information technology, and cognitive dimensions of performance, as well as the need for new assessment instruments adjusted to the new theoretical lines, among others).

Notwithstanding, behavioral theory was still alive in the field. Behavior modification, which explains individual and/or organizational behavior changes in terms of reinforcement contingencies (positive reinforcement versus punishment), revealed itself as a useful approach to some problems like absenteeism, lifestyle improvement, and task performance adaptation, among others (Mc Shane & von Glinow, 2010). It should also be noted that the U.S. neo-behaviorist B. F. Skinner (1904–1990) imagined an organizational utopia in behavioral terms in his novel *Walden Two* (1948). In it, individuals and groups were controlled by operant conditioning that set the rules for the whole community. Some years later, in 1956, W. H. Whyte Jr. (1917–1999) wrote *The Organization Man*, a bestseller that presented many Americans as living under the protection of large organizations, instead of subscribing to traditional individualism, a very important social change.

Toward the Humanization of Work, 1960s–1970s

Political movements and conflicts brought out some new humanitarian perspectives on humankind, work, and the economy. In the U.S., as an understandable reaction, a deeper comprehension of other people began to emerge. A decisive step was the approval of the Civil Rights Act (1964), which outlawed any discrimination based on race, age, sex, color, and national origin. In the world of work, equal employment and the personal dignity of all employees and employers were the focus of attention. In this climate, some voices were raised in the U.S. against the pretended use of social sciences in industry, which was always biased in favor of the dominant entrepreneurial class, and asked for a fair policy (Baritz, 1960). The *One Dimensional Man*, Herbert Marcuse's bestseller (1964), criticized the one-dimensional type of thought, focusing on how to make the current production system work more effectively without any crises that always favored the dominant class.

Leadership became a central topic. Ideas like the existence of naturally endowed "great men" or charismatic leaders and behaviorally well-trained people gave way to more situational conceptions. Fred E. Fiedler (b. 1922) proposed in the 1960s a "contingency theory," according to which a person becomes a leader under certain personality and situational factors, and may have success in certain types of situations but not in others. Some leaders are "task-oriented," while others are "group-oriented"; situation, task, and leader/member relationships determine a structure that may affect various resulting possibilities. Many alternatives have been proposed in recent years, empirically exploring the multiple typologies of known leaders.

Studies on motivation, like the cognitive "expectancy theory" of Canadian Victor Vroom (b. 1932), of individuals operating according to their perceived expectations of their actions, were combined with others stressing the relevance of cross-cultural variables and the training of economic achievement motivation, as D. McClelland (1917–1998) and D. G. Winter have described (McClelland & Winter, 1969).

As Marvin D. Dunnette (1926–2007) pointed out in his *Handbook of Industrial and Organizational Psychology* (1976), a new emphasis in theorizing was already present that eventually widened the research field.

Recent Developments

A brand new historical context is now serving as a framework for recent developments in the field. Scientific progress and growing technical and informational advances are having deep effects upon economic agencies. The rise of new, gigantic economies (like the one seen in China), the reappearance of strong nationalisms within Third World countries, the profound political changes of present-day Russia and the whole Islamic world, and the incorporation of many Third World countries into historical life are creating new conditions in the world of economics. New problems are demanding solutions from all professionals operating in the field. The new challenges imply the need to manage social change, attitudes, and desires, with models that "maximize human and machine resources" (Offermann & Gowing, 1990). I-O psychology has acquired immense weight. Classic topics have received continuous attention: personnel selection, labor socialization, and school-work transition processes (Peiro, 1983); motivation, work satisfaction, and the quality of life (Latham & Budworth, 2007); power participation and human performance (Fleishman & Quaintance, 1984); and the impact of new technologies and the multifactor problem of unemployment. Some other topics have been raised to the fore. One of these is organizational culture, a concept that emphasizes values, shared images, and empirical elements that give "uniqueness" to each organization. From the great diversity of studies on this topic, let us cite as an example some studies carried out by Michael Frese (b. 1949), who has shown the relevance of cultural factors to phenomena like personal initiative, entrepreneurial success, and innovation in both developed and underdeveloped countries (Frese et al., 2002).

Another important facet of today's research is organizational health psychology, a field in which the multiple dimensions of the labor world are interrelated with the mental health of workers, especially in stress, unemployment, or conflict situations. Accident-prone personalities, bullying, workplace violence, and other topics are currently receiving greater attention in order to establish intervention programs that modify conflict situations (Leka & Houdmont, 2010).

There have also been new theoretical approaches. Positive psychology focuses on positive and hedonistic dimensions of organizational behavior, instead of being centered on defective and deviant ones. It has appeared as an innovative viewpoint in the field, widening the I-O psychology area. It focuses on aspects related to positive emotions and positive subjective experiences and traits in workplaces and organizations while trying to improve the quality of life for both individuals and organizations (Nelson & Cooper, 2007; Salanova & Rodriguez-Sanchez, 2009).

A strong movement rapidly entering into all psychological areas is one based on present-day neurosciences. Biological, genetic, and neuropsychological dimensions of behavior are now being considered in workplace activities, attention and perception, emotions and motives in labor activity, stress, and many other concrete factors influencing productivity and worker feelings (Arvey & Zhang, 2015). In these matters, no doubt, research is on the first leg of a long journey.

Another salient trait of the current research situation is a strong tendency to combine some empirically well-grounded theoretical models with a great interest in hard and complex methodologies, well adapted to the collected data that have to be analyzed and clearly focused on concrete patterns (Peiró, 1990).

A content analysis of articles edited (1963–2007) in two of the most important journals in the field, the *Journal of Applied Psychology* (founded 1917) and *Personnel Psychology* (founded 1948), reveals that the following subject matters appear in both publications: research methods/ psychometrics; predictors of performance; work motivation and attitudes; and performance measurement/work outcomes (from Cascio & Aguinis, 2008; see Porter & Schneider, 2014). Emphasis on methodological procedures was accompanied by psychological questions (motivation, attitudes) and objective measures of working activity and results (performance, outcomes), basic aspects taken into account since the birth of I-O psychology

Apart from a continuously growing specialized literature, an endless list of treatises and works offering complete information about many matters may be easily found today. What follows is a list of several handbooks in which a detailed panorama of the rise and foundations of the discipline may be found. Apart from some fundamental works, like the classics Burtt's *Psychology and Industrial Efficiency* (1929), M. Viteles's *Industrial Psychology* (1932), and D. Katz and R. Kahn's *The Social Psychology of Organizations* 1966), we also cite J. G. March's *Handbook on Organizations* (1985) and another classic work, M. Dunnette's *Handbook of Industrial and Organizational Psychology* (1976, 1991). More recent treatises include P. J. D. Drenth et al., *Handbook of Work and Organizational Psychology* (1998), N. Anderson et al., *Handbook of Industrial, Work and Organizational Psychology* (2002), S. Zedeck, ed., *APA Handbook of Industrial and Organizational Psychology* (2010), and S. Kozlowski, ed., *The Oxford Handbook of Organizational Psychology* (2012). Moreover, an *International Review of Industrial and Organizational Psychology* has been published yearly (1986–2012), and an *Annual Review of Organizational Psychology and Organizational Behavior* has been recently launched (2014); many specialized review chapters have also appeared in *Annual Review of Psychology*, with detailed and critical views of I-O psychology.

Some Other Countries' Developments

I-O psychology has become one of the leading directions in contemporary research and intervention. The globalization of the economy and the existence of continuous interactions among cultures and nations have favored a multicultural approach to this field.

Let us now briefly consider a selection of views taken from I-O psychology in non-U.S. countries where I-O psychology has achieved a particular significance.

An Idiosyncratic Development in the USSR

Ideas on work psychology have had an idiosyncratic evolution in the USSR, the big political unit created around the old Russian Empire after the communist revolution of 1917. The reason for this peculiarity is based on its Marxist view of economy and work as a state enterprise, far from

the liberal views accepted by most Western democracies. In the initial days, some followers of Russian psychotechnology participated in the first congresses of the International Association of Psychotechnology (AIP) and even organized the fifth one that took place in Moscow in 1931. The president Isaak Spielrein (1891–1937) surprised his colleagues with an attack on "bourgeois" industrial psychology, while maintaining the superiority of the Marxist approach to work. The official thesis was against personnel selection procedures based on individual differences and, on that basis, tests were banned by the government through the decree "On Pedological Distortions" (1936) that required a democratic equality among all people and the rejection of "bourgeois evaluation" (McLeish, 1975). The model of a "new man," fully given to the ideals of a communist revolution, implied that industrial activities should not be guided by individual factors, but by the political direction of the Communist Party, the leading force of the nation. As Boris Pariguin (1930–2012) put it, while the bourgeois psychologists were trying to manipulate workers in favor of "capitalist monopolies," the Marxist ones were contributing to establish the new man in an egalitarian socialist society (Pariguin, 1967).

It has been said that Western work-organizational (W-O) psychology could benefit greatly from certain Russian developments in the study of human "higher nervous activity" (the purposeful and conscious activity toward goals mainly based on brain functioning) for more than half a century, as well as those in the fields of ergonomics and industrial safety. But at the same time, the principles of "guaranteed labor" and "full employment" determined a totally different framework from the one existing in Western countries in the labor field (Roe, 1995). Notwithstanding this, during the 1950s, there was an increasing interest in man/machine adjustment problems, and ergonomics and engineering psychology became very active areas of research; Boris F. Lomov (1927–1989), head of the Institute of Psychology within the Academy of Sciences at Moscow, did significant work on the human operator, paying attention to various capacities and considering "man as the subject of work, cognition and generalization" (Lomov, 1969). Only after the Soviet Union breakup of the early 1990s (Warr, 2007) did the process of liberalization of the Russian society begin, in which the economy has paved the way to a reestablishment of scientific freedom and a liberalized exchange with other developed countries.

Russia clearly exhibits the paradigm of a society wherein certain political criteria have made freedom of thinking and analysis of social problems impossible. These are at the core of any study of working humankind and, in effect, Russia has banned all possibilities for developing an effective I-O psychology as long as that worldview is in force.

Some Other Countries and Cultures

It is not possible, given the editorial limitations of this article, to try to present a clear picture of the I-O psychology developments that would take into account all the significant national stories. Only some disjointed comments are presented here, with the hope of creating an impressionist landscape with some cross-cultural flavor and certain meaning.

As psychological science was born in Europe, and more precisely in Germany, since its early days, most of the problems have also had a presence in the European story, but not without certain peculiarities, as was aptly pointed out by the German professor Bernhard Wilpert (1936–2007) (Wilpert, 1990).

Germany had the first laboratory for experimental psychology in Leipzig in 1879, thanks to the efforts of Wilhelm Wundt (1832–1920), and around this nucleus, a great school of thought was established with a large number of distinguished disciples. In it, some of Wundt's students like Hugo Münsterberg and William Stern did pioneering work on applied science and succeeded in setting the scene for a psychotechnological network. They analyzed a variety of problems, from work fatigue to traffic safety, vocational guidance, and military psychology (by very well-known researchers like E. Kraepelin, W. Moede, K. Piorkowski, W. Stern, O. Lipmann, and many others). In the days of Nazi Germany in the 1930s, groups of professionals were able to offer psychotechnological help to industry and the army, creating specialized centers for industrial psychology, and eventually transferred to both the Deutsche Democratic Republic or East Germany, and West Germany during the hard times of the divided country (1946–1989). Since then, German professionals have been actively integrated into the European Association of Work and Organizational Psychology (EAWOP) and other associations of our discipline.

The development of I-O psychology in France cannot be forgotten here. The pioneer work on child psychology and intelligence testing, largely dependent on the extraordinary contributions of Alfred Binet (1857–1911), showed the possibilities offered to society by the new psychology, thanks to its objective knowledge on abilities and mental activity. Psychotechnological research was carried out by Jean Maurice Lahy (on professional abilities), E. Toulouse (in mental health, 1920), and other colleagues. They prepared the ground for the creation of the National Institute for the Study of Labor and Professional Guidance in Paris, thanks mainly to the efforts of Henri Piéron (1881–1964), an experimentalist who emphasized applied interventions to promote safe work and psychological health (Piéron, 1959). He also favored the creation of the International Association of Psychotechnology (AIP) in 1920. Under his patronage, a new wave of specialists entered the field and brought new ideas to old problems: Claude Levy Leboyer (1928–2015), one of the major European contributors to organizational research; Raymond Bonnardel (1901–1988) industrial psychologist, and many others.

This French group was also connected with a Belgian nucleus, the important Institute of Ergology headed by Paul Sollier (1861–1933) that did significant work on psychotechnology. Another well-known researcher was the Polish-born Mrs. Iosefa Ioteyko (1866–1928), who worked in Brussels and whose book *The Science of Labor and its Organization* (1919) was one of the first approaches to an organizational view of the working enterprise.

In Spain, there was a very peculiar development due to historical circumstances. As the so-called father of psychological guidance, Juan Huarte was a 16th-century Spanish physician who, for the first time, paid attention to individual differences and their effects on the professional training of individuals in his *The Examination of Men's Wits* (1575). This was a seminal work on vocational guidance that was deeply censored by the Spanish Inquisition, on the grounds of its fully naturalistic conception of man. Many centuries later, in 1918, a center for applied psychology was

created in Barcelona, headed by Emilio Mira-y-Lopez (1896–1964), another active member of AIP. He explored many aspects of human activities, from war to sports, and devised a psychomotor projective test, the PMK or Myokinetic Apperception Test (1939). Jointly with another psychiatrist, Jose Germain (1897–1986), they promoted a national system for guidance, selection, and traffic safety in the 1920s. The Spanish Civil War (1936–1939) put an end to this initial psychotechnology and forced Mira-y-Lopez and many other colleagues to go into exile, mainly to Latin American countries, where applied psychology studies were resumed. In Spain, after some delay, psychology recovered its impetus, and applied research paved the way to new theoretical developments. Some students, M. Yela (1921–1994), J. L. Pinillos (1919–2013), and M. Siguan (1918–2010), brought psychology into the list of university careers. Soon after, specialized developments took place among those in I-O psychology (Peiro & Munduate, 1994). Of most significance were those promoted by José M. Peiró (b. 1950), head of one very active European center for organizational research and one of the leading researchers in IAAP.

Attention to national traditions cannot be separated from recent developments in cross-cultural studies. Most I-O psychological problems, especially those related to values, job meaning, leadership, and interpersonal relationships, should always be considered from a point of view deeply embedded in a particular cultural framework, although a cross-cultural approach to them has proven fruitful in many cases. It has expanded the range of organizational behavior, reduced ethnocentrism, and tested the universality of theories (Aycan & Gelfand, 2012). Organizational phenomena are, in large part, culture-bound processes. Entrepreneurial ideologies and political views of humans and society have exerted deep influence upon concrete situations of working people. The system of forces defining a society (Marías, 1987) is always operating in a historical manner in all organizations that mediate the life of society itself.

Studies comparing, for instance, Japanese and U.S. organizational cultures have shown the need for some anthropological information in order to understand the differences that were observed (Misumi, 1985; Gelfand & Erez y Aycan, 2007). W. G. Ouchi (b. 1943) examined the climates of two organizations, one American and the other Japanese. Both greatly differed on employment policies, company-personnel identification, and some values rooted in the countries' worldviews (Ouchi, 1981; Garmendia, 1988). It has been noted that some Confucian doctrines on interpersonal relationships still influence certain Chinese ways of implementing social enterprises (Ralston et al., 1992). Or, in other studies, it has been observed that some cultural-specific traits had effects on decision-making processes and contingent punishments, something that appears in Japan, Korea, Taiwan, Mexico, and the U.S. (Bond & Smith, 1996).

Dimensions like gender self-concept, ethnic identity, personal perception, justice, and many others have a great effect on the way interpersonal interactions are structured and interpreted in work situations. The meaning of work holds a different position within the value constellation among peoples in differing cultures, from the West European world, Far East Asia, and East European countries—especially in the days of their Marxian political governments (Bond & Smith, 1996). Cognitive factors are operating in many aspects of organizational processes—performance appraisal, leadership, supervision, and employee participation, among others—and studies are now focusing on current cross-cultural research (Koppes & Vinchur, 2012).

In a world with changing cultural heterogeneity and more immigration in developed and industrial countries, this type of approach is needed in order to fulfill all the requirements of respect for the rights of people and cultures, and obtain an effective, in-depth knowledge of human interactions.

Networks of Researchers

The field of work-industrial-organizational (W-I-O) psychology has shown great potential and capacity for creating collaborative and professional networks, profiting from its interest in the creation of more effective ways for promoting personal self-development in workplaces and influencing society's wellbeing.

One of the oldest associations of professionals and researchers is the American Psychological Association (APA), founded in 1892 and now gaining large support in society. Industrial psychologists, as they were first called, did not find desired accommodation at the APA. They tried other associations and finally gave support to the establishment of an American Association of Applied Psychology (AAAP) in 1937, where they had their own department; this eventually merged with a reorganized APA in 1945, forming a specialized division 14, Industrial and Business Psychology, a proper site for them that has not remained without changes: In 1962, "Business" disappeared from its name and, in 1973, the term "Organizational" was added; now it was known as the Division of Industrial and Organizational Psychology. In 1982, it adopted the form of a society, the SIOP or the Society for Industrial and Organizational Psychology, which is very active in its present form (Koppes, 2015).

Interest in associations has also grown in the European world. Psychologists felt the need for communication and cooperation. In looking for solutions, the AIP was established in 1920 under the leadership of Edouard Claparède (1873–1940), with the participation of well-known European psychologists like Giulio Cesare Ferrari, Emilio Mira-y-Lopez, Jean-Maurice Lahy, Ovide Decroly, George van Wayenburg, and Dimitre Katzaroff, among others. Since then, membership has continuously increased. AIP eventually changed its name to the present-day IAAP (International Association of Applied Psychology) and has become a very active society, largely inspired by its predecessor. A division on O-psychology was established in 1978 (currently W-O psychology), with professor Bernard M. Bass (1925–2007), a well-known specialist in leadership, as its founding president, and other distinguished researchers like P. J. Drenth, F. Fiedler, and E. Fleishman as members; it has played an important role in reinforcing research and multiplying influences.

A European Network on Work and Organizational Psychology created in 1980 has driven many initiatives to enhance teaching and communication about research on current topics in the discipline. It eventually turned into the European Association of Work and Organizational Psychology (EAWOP). It was founded in 1991, and its first president Robert Roe (1944–2016), a very active researcher on stress and organizational development, was able to strengthen professional training and establish links with the European Federation of Psychological Associations—a union of national psychological associations—that has provided additional

support. In 2016, an Alliance for Organizational Psychology (AOP) was created, as a federation of Work, Industrial, and Organizational Psychology societies that include the IAAP special division, the EAWOP, and the SIOP, from the American Psychological Association. Its main purposes are to support the advancement of this discipline across the world, enhancing its scientific bases, promoting connections and cooperation among professionals, and strengthening interactions with society.

Organizational psychology is now a very active field involving both scientific researchers and applied professionals. It is seeking a consolidation of humanistic climates within organizations that will allow personal wellbeing for all members. At the same time, it seeks to keep productivity and efficiency at highest levels as a means for creating prosperous, well-balanced, and equitable societies with the support of an updated scientific knowledge of organizations in our world.

Further Reading

Anderson, N., Ones, S. D., Sinangil H. K., & Viswesvaran, C. (Eds.). (2002). *Handbook of industrial, work, and organizational psychology*. Thousand Oaks, CA: SAGE.

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantham Books.

Jex, S. M., & Britt, T. V. (2008). *Organizational psychology*. Hoboken, NJ: Wiley.

Koppes, L. (Ed.). (2007). *Historical perspectives in industrial and organizational psychology*. London: Lawrence Erlbaum.

Pinder, C. C. (2008). *Work motivation in organizational behavior* (2d ed.). New York: Psychology Press.

Schultz, D., & Schultz, S. E. (2010). *Psychology and work today: An introduction to industrial and organizational psychology* (10th ed.). NJ: Prentice Hall.

Spector, P. E. (2011). *Industrial and organizational psychology: Research and practice* (6th ed.). Hoboken, NJ: Wiley.

Weiner, I. B., Schmitt, N., & Highhouse, S. (2012). *Handbook of psychology: Industrial and organizational psychology*. London: Wiley.

Whyte, W. H., Jr. (1957). *The organization man*. New York: Doubleday.

Yukl, G. (2010). *Leadership in organizations* (7th ed.). Upper Saddle River, NJ: Pearson.

Zedeck, S. (Ed). (2010). *APA handbook of industrial and organizational psychology*. Washington, DC: American Psychological Association.

References

Adair, J. (1984). The Hawthorne effect: A reconsideration of the methodological artifact. *Journal of Applied Psychology*, *69*, 334–345.

Arvey, R. D., & Zhang, Z. (2015). Biological factors in organizationalr behaviour and I-O psychology: An introduction to the special edition. *Applied Psychology*, *64*(2), 281–285.

Aycan Z., & Gelfand, M. (2012). Cross-cultural organizational psychology. In S. W. J. Kozlowski (Ed.), *The Oxford handbook of organizational psychology* (Vol. I, pp. 1103–1160). New York: Oxford University Press.

Baritz, L. (1960). *The servants of power*. Middleton, CT: Wesleyan University Press.

Benjamin, L. T., & Baker, D. (2004). *From séance to science: A history of the profession of psychology in America*. Belmont, CA: Thomson Wadsworth.

Bond, M. H., & Smith, P. B. (1996). Cross-cultural organizational behavior. *Annual Review of Psychology*, *47*, 205–235.

Carpintero, H. (2004). History of applied psychology. In C. Spielberger (Ed.), *Encyclopedia of applied psychology* (Vol. II, pp. 179–196). New York: Elsevier.

Cartwright, D., & Zander, A. (1974). *Dinámica de grupos. Investigación y teoría*. (*Group dynamics. Research and theory*). México: Trillas.

Cascio, W. F., & Aguinis, H. (2008). Research in industrial and organizational psychology from 1963 to 2007. *Journal of Applied Psychology*, *93*, 1062–1081.

Chandler Jr., A. D. (1977). *The visible hand: The managerial revolution in American business*. Cambridge, MA: Harvard University Press.

Dorsch, F. (1963). *Geschichte und Probleme der angewandten Psychologie*. Bern, Switzerland: H. Huber Verlagt.

Dunnette, M. D., & Hough, S. L. (Eds.). (1991). *Handbook of industrial and organizational psychology* (2d ed.). Palo Alto, CA: Consulting Psychologist Press.

Fleishman, E., & Quaintance, M. (1984). *Taxonomies of human performance: The description of human tasks*. Orlando, FL: Academic Press.

Frese, M., Brantjes, A., & Hoorn, R. (2002). Psychological success factors of small scale businesses in Namibia: The roles of strategy process, entrepreneurial orientation and the environment. *Journal of Developmental Entrepreneurship*, *7*(3), 259–282.

Gardner, H. (1985). *The mind's new science: A history of cognitive revolution*. New York: Basic Books.

Garmendia, J. A. (1988). La cultura de la empresa: Una aproximación teórica y practica. *Revista Española de investigaciones sociológicas*, *41*, 7–23.

Gelfand, M., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annual Review of Psychology*, *58*, 479–514.

Geuter, U. (1992). *The professionalization of psychology in Nazi Germany*. Cambridge, U.K.: Cambridge University Press.

Gould, S. J. (1981). *The mismeasure of man*. New York: Norton.

Hollway, W. (1991). *Work psychology and organizational behavior*. London: SAGE.

Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York: Wiley.

Katzell, R. A., & Austin, J. T. (1992). From then to now: The development of industrial-organizational psychology in the United States. *Journal of Applied Psychology*, *77*(6), 803–835.

Kliksberg, B. (1975). *El pensamiento organizativo: Del taylorismo a la teoría de la organización* (Organizational thought: From Taylorism to organizational theory). Buenos Aires: Paidós.

Koppes, L. L. (2003). Industrial-organizational psychology. In D. K. Freedheim, *Handbook of psychology. Volume I. History of psychology* (pp. 367–389). New York: Wiley.

Koppes, L. L., et al. (Eds.). (2007). *Historical perspectives in industrial and organizational psychology*. London: Lawrence Erlbaum.

Koppes, L. L. (2015). *A brief history of the Society for Industrial and Organizational Psychology, Inc., a division of the APA* (at www.siop.org/History/historynew.aspx#narrative <http://www.siop.org/History/historynew.aspx#narrative>).

Koppes, L. L., & Pickren, W. (2007). Industrial and organizational psychology: An evolving science and practice. In L. L. Koppes et al. (Eds.) (pp. 3–35).

Koppes, L. L., & Vinchur, A. J. (2012). A history of industrial and organizational psychology. In S. Kozlowski (Ed.). *The Oxford handbook of organizational psychology*, Vol. I. Oxford: Oxford University Press.

Latham, G., & Budworth, M. H. (2007). The study of work motivation in the 20th century. In L. Koppes et al. (Eds.) (pp. 353–381).

Leka, S., & Houdmont, J. (Eds.). (2010). *Occupational health psychology*. Chichester, U.K.: Wiley-Blackwell.

Lomov, B. F. (1969). Engineering psychology in the USSR. In M. Cole & I. Maltzman (Eds.), *Handbook of contemporary Soviet psychology* (pp. 574–602). New York: Basic Books.

Lord, R. G., & Maher, K. (1991). Cognitive theory in industrial/organizational psychology. In Dunnette & Hough (Vol. II, pp. 1–62).

Mallart, J. (1942). *Organización científica del trabajo* (Scientific work organization). Barcelona: Labor.

Marías, J. (1987). *The structure of society*. Tuscaloosa: University of Alabama Press.

Mayo, E. (1945). *The social problems of an industrial civilization*. Boston: Harvard University Press.

McClelland, D., & Winter, D. G. (1969). *Motivating economic achievement*. New York: Free Press.

McLeish, J. (1975). *Soviet psychology: History ,theory, content*. London: Methuen.

McShane, S. L., & von Glinow, M. A. (2010). *Organizational behavior: Emerging realities for the workplace revolution* (5th ed.). New York: McGraw Hill.

Misumi, J. (1985). *The behavioral science of leadership*. Ann Arbor: University of Michigan Press.

Mouzelis, N. (1968). *Organization and Bureaucracy: An analysis of modern theories*. Chicago: Aldine.

Münsterberg, H. (1913). *Psychology and industrial efficiency*. Boston: Houghton Mifflin.

Münsterberg, H. (1914). *Gründzuge der psychotechnik* (Fundamentals of psychotechnology). Leipzig: Barth.

Nelson, D., & Cooper, C. L. (2007). *Positive organizational behavior*. London: SAGE.

Offermann, L. R., & Gowing, M. K. (1990). Organizations of the future: Changes and challenges. *American Psychologist*, *45*(2), 95–108.

Ouchi, W. G. (1981). *Theory Z: How American business can meet the Japanese challenge*. Reading, PA: Addison-Wesley.

Pariguin, B. D. (1967). *La psicologia social como ciencia* (Social psychology as a science). Montevideo, Spain: Pueblos Unidos.

Peiro, J. M. (1983). *Psicología de la organización* (Organizational psychology). Madrid: UNED.

Peiró, J. M. (1990). *Organizaciones: Nuevas perspectivas psicosociológicas*, (Organizations: New psychosociological perspectives). Barcelona: PPU.

Peiro, J. M., & Munduate, L. (1994). Work and organizational psychology in Spain. *Applied Psychology*, *43*(2), 231–274.

Piéron, H. (Ed.). (1959). *Traité de psychologie appliquée: Les grands domaines d'application de la psychologie* (Vol. VII). Paris: Presses Universitaires de France.

Porter, L. W., & Schneider, B. (2014). What was, what is, and what may be in OP/OB *Annual Review of Organizational Psychology and Organizational Behavior*, *1*, 1–21.

Quintanilla, I. (1992). *Teoria, aplicaciones y práctica de la psicologia del trabajo* (Theory, application and practice of work psychology). Valencia: Promolibro.

Ralston, D. A., Gustafson, D. J., Elsacs, P. M., Cheing, F. M., & Terpstra, R. H. (1992). Eastern values: A comparison of managers in the United States, Hong Kong and the People's Republic of China. *Journal of Applied Psychology*, *77*, 664–671.

Rodríguez, A. (1992). *Psicología de las organizaciones: Teoría y método* (Organizational psychology: Theory and method). Barcelona: PPU.

Roe, R. A. (1995). Developments in Eastern Europe and work and organizational psychology. *International Review of Industrial and Organizational Psychology*, *10*, 275–349.

Rüegsegger, R. (1986). *Die geschichte der angewandten psychologie, 1900–1940*. Bern, Switzerland: Hans Huber.

Salanova, M., & Rodriguez-Sanchez, A. (2009). *Looking for the positive side of occupational health at work* (e-book). Castellon, Spain: Universitat Jaume I.

Salgado, J. F. (2001). Some landmarks of 100 years of scientific personnel selection at the beginning of the new century. *International Journal of Selection and Assessment*, *9*(1–2), 3–8.

Servan-Schreiber, J. J. (1967). *Le défi americain* (The American challenge). Paris: Denoël.

Scheid, J. C. (1987). *Los grandes autores en administración* (Great authors in administration): Barcelona: Orbis.

Shimmin, S., & van Strien, P. J. (1998). History of the psychology of work and organization. In P. J. D. Drenth et al. (Eds.), *Handbook of work and organizational psychology* (2d ed., Vol. I, pp. 71–99). New York: Psychology Press.

Stavrianos, L. S. (1991). *A global history. From prehistory to the present* (5th ed.). Englewood, NJ: Prentice Hall.

Taylor. F. W. (1947). *Scientific management*. New York: Harper.

Warr, P. (2007). Some historical developments in I-O psychology outside the United States. In L. Koppes et al. (Eds.) (pp. 81–107).

Wilpert, B. (1990). How European is work and organizational psychology? In P. J. D. Drenth et al. (Eds.), *European perspectives in psychology* (pp. 3–20). New York: Wiley.

Related Articles

Organizational Climate and Culture

Scientific Studies of Dreams and Dreaming in the Late 19th and Early 20th Centuries