

# A History of Occupational Health Psychology

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Interest in questions about occupational health psychology is by no means a recent phenomenon. The question of how workplace practices and policies, supervision, and leadership affect employees' physical and psychological well-being has attracted a considerable amount of interest for much of the twentieth century. Recognition of the importance of the more intangible aspects of work and their effects on individual health, both psychological and physical, began to emerge in the nineteenth century, particularly after the Industrial Revolution. At that time, psychology was only a fledgling discipline; it was largely confined to purely experimental matters, making little contribution to applied issues. However, individuals from disciplines with a more substantial history—such as philosophy, politics, sociology, art, and literature—had begun to air concerns about the impact of the changing world of work on employees' physical and psychological health. The strange and dehumanizing world of factories and offices began to appear not only in the sociological and political commentaries of that time, but also in novels throughout much of Europe in the late nineteenth and early twentieth centuries, for example, in the writings of authors such as Kafka.

In this chapter, we trace the development of occupational health psychology in the twentieth century. In doing so, we take the position that the interactions between people, ideas, events, and institutions are critical. We will trace various events throughout the twentieth century and note how they influenced what today we refer to as occupational health psychology. We will also examine some of the institutions that have had a critical impact on the development of occupational health psychology. Throughout, we will introduce some of the people whose research, ideas, and personal efforts helped to create occupational health psychology as a recognizable

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discipline and who may have begun to make a difference to the lives of working people.

One of the first to voice concern, in the mid-nineteenth century, was Friedrich Engels in *The Condition of the Working Class in England* (1845/1987), first published in German. He described in detail the physical and psychological health problems suffered by workers from many different trades. He believed the origins of these problems to be in the organization of work and its associated social and physical environments. Karl Marx subsequently wrote about the horrific ways in which industrial capitalism exploited employees in *Das Kapital* (1867/1999), the first volume of which he published himself. He famously described the "alienation" of workers when treated as commodities within a capitalist economic system where workplaces were increasingly characterized by specialization and division of labor. Many in Europe who subsequently became interested with the health effects of work organization have acknowledged an intellectual debt to both Marx and Engels: Both of the works referred to previously are still in print and widely read today.

However, despite these concerns, a considerable period of time elapsed before the effects of the organization of work (as opposed to the physical working environment) on health were subject to serious scientific attention. A more substantial investigation of the nature of the relationship between health and work from a psychological perspective began to emerge in publications from Northern Europe and the United States in the mid-twentieth century. This occurred partly as a result of the cross-fertilization of ideas between the disciplines of medicine, psychology, sociology, and management. It could be argued that it was from these developments that the discipline of occupational health psychology, as we now know it, emerged.

Writing a history of any newly emerging field presents particular challenges, notably in attempting to document the contribution of specific individuals or events. With the benefit of more hindsight—perhaps a century or two rather than a few decades—one might make a more informed judgment. But even 200 years may not be enough. Chou En-Lai, the former Chinese leader, when asked in the late 1970s for his opinion on the impact of the French Revolution (1789), is reputed to have responded, "I don't know. It's too soon to tell." It is clear that tracing influential early developments in an area as new as occupational health psychology presents an intriguing challenge, but one with which we nonetheless readily engage.

There are two further notes of caution. First, a significant proportion of the subject matter included in this analysis is largely restricted to that published in, or translated into, English. Second, perceptions of important conceptual frameworks in the discipline vary between North America and Europe and between the various countries of Europe. This chapter may be ambitious in trying to reconcile many different viewpoints and distill them in so few pages. In many ways, therefore, what is offered is *a* history rather than *the* history of occupational health psychology.

## Early Developments in the United States

Although many developments relating to occupational health psychology throughout the twentieth century were positive from the perspective of employees, one of the earliest events in the United States was certainly not. We refer to the seminal work of Frederick Taylor whose work, *The Principles of Scientific Management* (1911), was to attract considerable attention for the remainder of the century. Taylor, initially a machine-shop foreman, proposed that low productivity was partly the result of management's ignorance of working processes. This ignorance allowed workers to deceive managers, to control those processes, and thus to determine the speed of work. He advocated, in the interests of financial economy, that tasks should be carefully analyzed, simplified, compartmentalized, and standardized and that worker influence should be removed. In effect this reduced the amount of skill required to complete tasks and removed all worker control and discretion. These principles appeared to make economic sense to many managers at the time and had a significant impact on management practice both inside and outside the United States. "Scientific management" was a critical development in the emergence of occupational health psychology because of its two inherent assumptions. First, as a forerunner of the industrial engineering approach, it separated "thinking" about work from "doing" work. Specifically, one class of employees, industrial engineers, would have the specialized skills (and as it later transpired, the organizational power) that would allow them to design the work of other people, whose only role was to perform whatever tasks were assigned to them. In this sense, scientific management may represent the first concerted effort to de-skill work. Second, scientific management demanded that consideration of employee emotions at work be eliminated, on the assumption that they interfered with productive work. As we shall see, at the end of the twentieth century, occupational health psychology would be embracing the very opposite of these two concepts.

Additional research in the United States that had a widespread influence in many countries included the experiments carried out in the 1920s at the Western Electric Company at Hawthorne (Mayo, 1933; Roethlisberger & Dickson, 1939). Using a Tayloristic framework, these studies explored the relationships between various working conditions (e.g., lighting, wages, or rest breaks) and productivity. But whatever changes were made, productivity usually rose. It was eventually concluded that receiving special attention, being aware that they were the focus of research, and guessing what the researchers were investigating affected the way workers behaved. It became apparent that workers' perceptions of, and feelings about, what was happening to them were important (the antithesis of the Tayloristic emphasis on removing emotions from the workplace). This effect was henceforth named the "Hawthorne effect." The significance of this development lay in the recognition of the importance of "human relations"—the social, psychological, and cultural aspects of work. It gradually became apparent that although Taylor's principles may have appeared to managers

to make economic sense, "scientific management" was not necessarily followed by increases in productivity and was in fact often associated with negative attitudes and poor health outcomes. Two subsequent investigations into the physical and mental health problems experienced by automobile workers in the United States substantiated this view (Chinoy, 1955; Kornhauser, 1965). Such findings were also being documented in Europe. Before noting these, however, it is worth mentioning two other significant theoretical developments for occupational health psychology that arose from quite different streams of research in the United States. First, from a perspective of personality and clinical psychology, Abraham Maslow published his theory of self-actualization (1943), and some 20 years later applied it specifically to work organizations (1965). Although it has been generally underappreciated from the perspective of occupational health psychology, Maslow stated explicitly that only individuals who are psychologically healthy could be motivated to work, arguing that repressive environments, including work environments, would inhibit individuals from reaching their fullest potential.

Perhaps one of the other most salient developments in the twentieth century was the advent of job design theories. Credit for much of the initial thinking about those working conditions that influence job performance and mental health can be given to Frederick Herzberg (1966). He suggested that motivation and job satisfaction could be improved by improving people's work—for example, by enriching their jobs through increased skill use, challenge, or recognition. Although some of his research has been subsequently criticized, these basic suggestions about job enrichment remain useful, and his ideas stimulated a considerable amount of research on this topic. Some years later, Hackman and Oldham (1976, 1980) provided a more specific "job characteristics" model, rejuvenating research and thinking on the topic of job design.

Many other important theoretical contributions in the early development of occupational health psychology and social psychology are acknowledged to have originated at the University of Michigan. In 1948, Rensis Likert had established the Institute for Social Research (ISR) at the University of Michigan, and the institute's influence was to be felt for the rest of the century. It is the oldest institute for interdisciplinary research in the social sciences in the United States, currently employing about 350 individuals. Some of its earlier substantive contributions included Quinn and Staines's (1977) "quality of employment survey," and House's (1981) research on work stress and social support. The early theoretical contributions (e.g., person-environment fit) of what was known as the "Michigan School" (e.g., Caplan, Cobb, French, van Harrison, & Pinneau, 1975; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Katz & Kahn, 1966) was widely acknowledged in Europe. More recently, the influence of the ISR is maintained through, for example, its research program on the effects of unemployment, as well as on the factors that influence reemployment (e.g., Caplan, Vinoker, Price, & van Ryn, 1989; Kessler, Turner, & House, 1987; Vinokur, Schul, Vuori, & Price, 2000).

### Early Influences From Europe

Research in Europe was demonstrating the dangers of scientific management. In Britain, for example, the negative effects of the disregard for workers' psychological well-being in job design in coal mines was explored in some detail by researchers from the Tavistock Institute of Human Relations in London (Trist & Bamforth, 1951). Trist (a psychiatrist) and Bamforth (a former miner with 18 years experience at the coal-face) described in considerable detail the psychological and social consequences of a particular change in coal-mining methods. They explored the relationship between the health and productivity of miners as a function of the social structure of the work system. Miners' work had changed from a "whole" task, skilled, autonomous system, to a mechanized, fractured system with isolated but heavily interdependent groups of workers. In this new system, miners were observed to experience high levels of anxiety, anger, and depression—problems that had previously been largely absent. Major disruptions in social support also were observed. Trist and Bamforth concluded (1951, p. 41) that it was "difficult to see how these problems can be solved effectively without restoring responsible autonomy to primary groups within the system and ensuring that each of these groups has a satisfying sub-whole as its work task, and some scope for flexibility in workplace." They concluded that the nature of demand and employee participation in decision-making were important for employee health.

At this time, although it is hard to trace, there was much cross-fertilization of ideas about work organization in the Nordic countries (e.g., Scandinavia and Finland). Many Nordic academics read fluently in several languages, including English. Trist and his colleagues from London, notably Fred Emery, collaborated closely with a Norwegian, Einar Thorsrud, who is often regarded as the founding figure of what would now be recognized as "occupational health psychology" in Norway. Thorsrud and Emery's empirical research on the empowering of work groups (essentially, an anti-Tayloristic approach) and their theory of psychological job demands were widely read and inspired many researchers in Denmark and Sweden (Thorsrud & Emery, 1970). Similarly, the sociologist Sverre Lysgård's writings on workers' collectives (1961) was influential. Also in Norway, a separate research group led by Holger Ursin began publishing work on stress-related psych-physiological mechanisms (Ursin, Baade, & Levine, 1978; Ursin, 1980). In Finland there had been a long-term interest in the mental health outcomes of work design. The Finnish Institute of Occupational Health, for example, acknowledged major influences from the United States, Germany, and the United Kingdom, with some of their psychologists visiting Trist and colleagues in London in the 1950s. In 1974, Finland employed its first practicing occupational health psychologist in the UPM Kymmene paper mill. In Denmark, an interest was also flourishing in the importance of working conditions and related interventions: Indeed, the translation of "occupational health psychology" in Danish is "work environment psychology." Much of the Danish interest was inspired by work in Sweden, where

major direct challenges to Taylor's ideas are widely acknowledged to have emerged in the 1970s and 1980s, much of it published in English. We return to this work in more detail below.

Moving ahead for a moment, the publications that have probably had the most impact in occupational health psychology, and that demonstrated to a wide audience the inadvisability of adopting a Tayloristic approach to job design, were Robert Karasek's (1979) paper on job demands, job decision latitude, and mental health, and his subsequent paper on the importance of such factors for cardiovascular health in a prospective study of Swedish men (Karasek, Baker, Marxer, Ahlbom, & Theorell, 1981). A third publication, the influential book that Karasek coauthored with Töres Theorell titled *Healthy Work* (1990) brought the subject matter to an even wider audience. The historical importance of the job demands–job control theory lies not so much in the subsequent attempts at its validation by other workers but in the enormous amount of research that later focused on those psychosocial aspects of work that might be critical for psychological and physical health. Within a decade of the appearance of *Healthy Work*, research findings were suggesting that the factors responsible for psychological and physical health were the same as those associated with higher levels of job performance (e.g., Parker & Wall, 1998; Wall, Corbett, Martin, Clegg, & Jackson, 1990).

The work of Karasek and Theorell did not emerge in a vacuum. It followed directly from the strong tradition of research on, and thought about, work design and health in the Nordic countries. In those countries, activities typical of traditional industrial/organizational psychology, such as personnel selection and performance assessment, had been criticized (largely by the labor movement) and had not prospered, but research and practice concerned with work reform and worker well-being flourished.

It is widely acknowledged in Europe that many of the major intellectual developments that heralded interest in the relationship between work and health from a psychological and psychophysiological perspective, and that provided an empirical base for such concerns, emerged in Sweden and in Norway. Karasek and Theorell had worked, separately, in two key institutions in Sweden that had a major impact on the early development of occupational health psychology and under the guidance of two influential figures: Bertil Gardell (a psychologist) at the University of Stockholm, and Lennart Levi (a physician) at the Karolinska Institute in Stockholm.

Gardell is widely recognized in Europe as one of the founding figures of work and organizational psychology. He worked at the University of Stockholm from the 1960s, becoming professor of psychology, studying work reform. He described in detail how work (e.g., as advocated by Taylor) could lead to "alienation" and withdrawal, and published widely on the relationship between technology, autonomy, participation, and mental health (e.g., Gardell, 1971, 1977) and on the relationship between work reform research and social change (Gardell & Gustavsen, 1980). In a series

of empirical studies, he and others in Sweden (e.g., Gunnar Aronsson and Gunn Johansson) established credibly throughout the 1970s and 1980s that, among other matters, machine-paced work, lack of control at work, monotonous work, and fragmented and isolated work all had adverse effects (e.g., Johansson, Aronsson, & Lindström, 1978). The importance of worker participation and control were particularly central to many of these investigations: Aronsson (1987) later published a book on the concept of control in work psychology.

Many of Gardell's ideas, before and after his unfortunate early death, were developed further by his colleagues and researchers in Sweden. Marianne Frankenhaeuser was one such collaborator, among the first to explore the psychophysiological mechanisms involved in the relationship between working conditions and ill-health as a means of broadening the "scientific" case for job redesign. She and her colleagues investigated the neuroendocrinological changes associated with various environmental conditions such as understimulation, low control, monotonous activity, or fast-paced work (Frankenhaeuser & Gardell, 1976; Frankenhaeuser, Lundberg, & Forsman, 1980; Frankenhaeuser & Johansson, 1986).

Also in Stockholm in the 1950s, Lennart Levi, a physician, had created his "stress" laboratory as part of the Karolinska Institute. He had previously spent some time working with Hans Selye in Montreal and his initial focus, largely experimental, was on the physiological aspects of stress. However, he gradually adopted a multidisciplinary focus, and began working with psychologists and sociologists in the 1960s on large-scale studies, some with Aubrey Kagan, of working conditions and their associations with various health indicators. Levi also explored the psychophysiological mechanisms associated with "stressful" conditions. He was influential in international circles, advancing the importance of the psychosocial work environment and systems-level thinking for worker health at a time when such notions, and social medicine in general, were not widely accepted by the medical establishment (Levi, 1971). Researchers at the Karolinska Institute conduct many studies on work stress as well as on stress in general. Levi later founded the Institute for Psychosocial Factors and Health, an independent government institute associated with the Karolinska Institute, in 1981, and became its first director.

Töres Theorell, one of Levi's younger colleagues, was a specialist in clinical cardiology with an initial interest in the role of life events. He went on to make a significant impact on the field, both with Karasek and with colleagues at the Karolinska Institute. On Levi's retirement in 1996, Theorell took over as director of the institute. The results of his work partly inspired The Whitehall Study, a longitudinal study on the relationship between working conditions and cardiovascular disease, carried out by Michael Marmot and colleagues in the United Kingdom. Marmot and Theorell pioneered the notion that differences in the psychosocial work environment may be partly responsible for the association between social class and the incidence of coronary heart disease (Marmot & Theorell, 1988).

## Unemployment and Nonwork

So far, we have examined the issue of the organization of work and its effects on mental or physical health. A comprehensive study of the field of occupational health psychology today, however, would include not just a focus on psychosocial factors at work but also an understanding of the effects of nonwork and unemployment. Although research on the interdependence of work and nonwork has been conducted since the early 1980s, there is substantially more research on this topic than on unemployment. The primary focus of this research endeavor has been on the mutual effects of work on family, and family on work (Barling, 1990). In contrast, the effects of unemployment have been the focus of research for at least seven decades, with interest peaking after bouts of high unemployment.

The contribution of Marie Jahoda was substantial throughout most of this period. Jahoda's earliest research focused on the effects of unemployment on a particular group in Europe, the Marienthal community, which had previously experienced sustained industrial development (Jahoda, Lazarsfeld, & Zeisel, 1933). Much later, she provided a theory of the psychological meaning both of employment and unemployment, reasoning that neither of them exerts uniform effects; instead it is the quality of the employment and unemployment experience that is critical (Jahoda, 1982). Remarkably, her contribution did not end there, as was evident from her review of the effects of economic recession on psychological well-being in 1988, some 55 years after her initial research findings were first published. Indeed, on her death on April 28, 2001, at the age of 94, the byline of one obituary noted, "Psychologist who examined the corrosive effects of unemployment" (*Professor Marie Jahoda*, 2001).

Separately, research was being conducted within Australia and the United States. Although no individual researcher matched the length of Jahoda's career, the findings of Stan Kasl and Sidney Cobb (Kasl & Cobb, 1970; Kasl, Gore, & Cobb, 1975) helped to legitimize the study of unemployment in the United States, as did those of Peter Warr in the United Kingdom (1987). Similarly, like Jahoda's (1982) theory, the archival analyses of the Great Depression by Glen Elder (1974) helped to dispel the notion that unemployment exerted uniform negative effects. Research by Boris Kabanoff, Norman Feather, and Gordon O'Brien (e.g., Feather, 1990; O'Brien & Feather, 1990) advanced the breadth of occupational health psychology by providing a comprehensive understanding of the nature and effects of both employment and unemployment.

## Other Significant Institutions

The U.S. National Institute for Occupational Safety and Health (NIOSH) is widely acknowledged as having played an important role in furthering the cause of occupational health psychology since the early 1990s. NIOSH is mandated by federal law in the United States to conduct research on working conditions that could be hazardous to employee mental or physical



well-being. An additional mandate is to make recommendations and disseminate knowledge that could be used to prevent workplace injuries. NIOSH has made three substantial contributions to the field. First, Sauter, Murphy, and Hurrell (1990) published a seminal paper, based on extensive consultations with researchers, practitioners, and policy makers, that presented a comprehensive national strategy both to promote and to protect the psychological well-being of workers. Second, NIOSH entered into a cooperative agreement with the American Psychological Association (APA) to fund the initial development of graduate training in occupational health psychology in the United States. Several universities in the United States (e.g., Bowling Green State University, Clemson University, Kansas State University, Tulane University, and the Universities of Houston and Minnesota) received funding toward the design and delivery of modules on this subject. Third, NIOSH and the APA joined forces in the 1990s to host four major international conferences on the broad topic of work and well-being. These took place in 1990, 1992, 1995, and 1999. The number of attendees increased approximately ten-fold within the decade, as did the number of countries represented; at the 1999 conference, representatives from 25 countries participated. These conferences instituted something of a tradition: At the time this chapter goes to press, the next such conference is scheduled to be held in Toronto in March 2003.

In many countries, distinct institutions can be identified that have been influential in the development of occupational health psychology. We have already mentioned some from the United States and Sweden. But there are others. In the United Kingdom, for example, at least three separate research groups made an important contribution in early developments.

The Institute of Work, Health & Organisations, I-WHO, (formerly the Stress Research Group, and then the Centre for Organisational Health & Development) at the University of Nottingham has had a commitment to occupational health psychology as a distinct discipline since its beginnings in the early 1970s. Under the direction of Tom Cox, it made a notable contribution to the development of research, particularly in the fields of work stress (e.g., Cox, 1978) and workplace violence (e.g., Cox & Leather, 1994). Cox's approach was driven by transactional theories such as that of Richard Lazarus (e.g., Lazarus, 1966; Lazarus & Folkman, 1984) that highlighted the importance of cognitive and perceptual processes in people's reactions to their environments. However, the focus of his early work was more on the psychophysiological processes that might mediate between various aspects of the environment and health. Cox and his colleagues moved on to apply theory in the workplace via interventions using a risk-management paradigm (Cox, Griffiths, & Rial-Gonzalez, 2000). They acknowledged the significant influence of the Nordic emphasis on design, prevention, and systems-level—rather than individual-level—analysis. I-WHO has also been a leader in the field of postgraduate education in occupational health psychology since 1996 when it established the first (year-long) master's-level degree in the world devoted entirely to occupational health psychology.

The Institute for Work Psychology at Sheffield (formerly the Social and Applied Psychology Unit) has been one of the longest standing and most highly respected research institutions in the United Kingdom for research and education in work and organizational psychology. It has also made major contributions that are relevant to occupational health psychology, notably in terms of the relationship between work, well-being, and effectiveness (Warr, 1999). Peter Warr's "Vitamin Model" and his work on the relationship between work, well-being, and unemployment (Warr, 1987) were notable early examples, as was Toby Wall's research on the nature and consequences of job redesign (Wall, 1982).

At the University of Manchester Institute for Science and Technology (UMIST), Cary Cooper has promoted the general field of occupational health psychology through the development of a number of broadly based journals, including the *Journal of Organizational Behavior*, by bringing together numerous collections of the works of authors in various areas of occupational psychology as informative and influential edited collections, and by being a prolific and effective publicist for the subject.

There was clearly much activity in various institutions elsewhere in Europe in the 1970s and 1980s that was relevant to occupational health psychology's concerns, but much of what happened then is not as widely known as is deserved, simply because the significant authors operated and published in their native languages. But there is no doubt that some of these individuals have been influential. Winfried Hacker and his colleagues from Dresden (in the former East Germany), for example, undertook much-admired early research on working conditions and the psychophysiology of stress (Hacker, 1978; Hacker & Richter, 1980). There are other relevant contributors (e.g., Johannes Siegrist, also from Germany; Siegrist, 1996); but space precludes further discussion of their contribution. For these omissions, we apologize.

### Professional Organizations and Their Activities

Several other recent developments warrant attention, because they point to the emergence of occupational health psychology as an institutionalized, mature discipline. One of these is the publication of two journals that are devoted specifically to occupational health psychology. *Work and Stress* has been edited by Cox at the University of Nottingham since its inception in 1987, and is currently in its 16th year. The *Journal of Occupational Health Psychology* has been published by the APA since 1996, first edited by James Campbell Quick, and from 2000 by Julian Barling. Like other journals, *Work and Stress* and the *Journal of Occupational Health Psychology* provide a forum for researchers and practitioners and for the dissemination of knowledge. The presence of two such international quarterlies lends further support to the notion that occupational health psychology has emerged as a distinct discipline.

The emergence of organizations for scientists and practitioners could be taken as further evidence of maturity of a field. The European Academy

of Occupational Health Psychology was established in 1997 by Cox and coworkers in the United Kingdom (Amanda Griffiths), together with colleagues from Sweden (Sten-Olof Brenner, Curt Johansson, and Clemens Weikert) and Denmark (Einar Baldrussen). Its purpose is to promote research, practice, and education in the discipline, and has a separate forum devoted to each of those three endeavors. It hosted its first conference in Sweden in 1999, its second in the United Kingdom in 2000, and its third in Spain in 2001. As with the NIOSH/APA conferences, this tradition is expected to continue: At the time this chapter went to press, a fourth conference is planned in Austria for 2002.

The International Commission on Occupational Health ratified a new Scientific Committee in 1999 on Work Organization and Psychosocial Factors (ICOH-WOPS), with Raija Kalimo from the Finnish Institute of Occupational Health as its first chair and Michiel Kompier from the University of Nijmegen in the Netherlands as its second. Its remit is largely to promote occupational health psychology.

In 2000, an informal International Coordinating Group for Occupational Health Psychology (ICGOHP) was formed, its purpose being to promote and facilitate the development of research, professional practice, and education in occupational health psychology within an international framework. One particular task is the coordination of the scheduling of conferences serving the discipline. Informal meetings take place at major conferences where its role and membership are reviewed. The initial members of the ICGOHP, together with the bodies they represent are, Barling (*Journal of Occupational Health Psychology*), Mike Colligan (NIOSH), Cox (*Work and Stress*), Heather Fox (APA), Griffiths (European Academy of Occupational Health Psychology), Joe Hurrell (NIOSH), Gwendolyn Keita (APA), and Steve Sauter (NIOSH).

The very existence of regular international conferences bringing together researchers in occupational health psychology is another mark of a maturing discipline. In addition to the conference series sponsored by NIOSH and the APA as well as the series sponsored by the European Academy for Occupational Health Psychology, the International Commission on Occupational Health (ICOH) hosted its first special conference on Psychosocial Factors at Work in Copenhagen in 1998, and is planning a second in Japan in 2005. These conferences will be coordinated in the future whenever possible.

### Recent Developments

One of the ultimate criteria for the contribution and maturity of occupational health psychology is that some of its central tenets (e.g., the importance of employee control and participation) have become enshrined in government legislation and advice for employers in many countries. The following examples demonstrate the developing situation.

One of the first countries to establish such legislation was Sweden. The Swedish Work Environment Act (1978) specified, among other things,

that working methods, equipment, and materials should be adapted to fit people—both from a physiological and a psychological point of view. Sweden's Act of Co-determination (1977) had already given workers influence over job design, production methods, and the work environment, as well as the right to influence major decisions and planning processes via representation at board level (Gardell & Johansson, 1981). Somewhat later, in 1989, the European Commission published their framework directive titled, "Council Framework Directive on the Introduction of Measures to Encourage Improvements in the Safety and Health of Workers at Work" (European Commission, 1989). Every member state of the European Union (EU) was required to translate the requirements of this directive into their own national legislative frameworks by 1992. Major requirements were that employers should assess all major risks to employee health and that employees or their representatives should be consulted on all matters that might affect their health and safety. In the United Kingdom, some of these requirements were already in place, but those that were not were incorporated into the Management of Health & Safety at Work Regulations (1992, 1999). In the Approved Code of Practice for these Regulations (1999), it states, for example, that "employers should increase the control individuals have over the work they are responsible for" and that they should "adapt work to the requirements of the individual (consulting those who will be affected when designing workplaces" (paragraph 30d). In the United States, as mentioned previously, NIOSH advised employers that workers should be given the opportunity to participate in decisions that affect their jobs and task performance (Sauter et al., 1990).

Three workers in the field have received significant recognition in the United Kingdom, in the form of national honors, for their respective services to occupational health. Marmot and Cox received their honors in person from Queen Elizabeth II in 2000. In 2001, Cooper was similarly honored. Awards such as these are exceptional, and provide external confirmation of their recipients' significant contributions.

Given that occupational health psychology is still a newly emerging field, we hope that this brief introduction to its origins—people, ideas, events, and institutions—has demonstrated how far it has come in a short time. Whereas at the beginning of the twentieth century work was designed largely with managers' best interests at heart, increasingly we are witnessing a desire to promote and protect the psychological and physical health of workers themselves, through prevention and job design. If this level of progress continues throughout the twenty-first century, we can be cautiously optimistic that occupational health psychology will make a worthwhile and lasting contribution.

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