1

An Introduction to Facing the Challenges of a Multi-Age Workforce: A Use-Inspired Approach

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This volume addresses what is arguably one of the industrialized world's most pressing challenges at the start of the 21st century; namely, how best to promote employability and well-being in an increasingly older workforce and age-diverse workplace. In North America, Asia, and Europe, aging populations, reductions in birth rates, and new patterns of late life workforce participation have already begun to influence societal norms, public policy, and organizational practices. Organizational and work scholars have also begun to devote systematic attention to the issues associated with these population trends, as evidenced by the growing number of special journal issues and books devoted to effectively managing an aging workforce. In this edited volume, we seek to provide readers with an overview of the substantial progress on this topic and the insights of researchers pursuing these issues pertaining to what needs to be done in the future.

The issues associated with workforce aging demand an interdisciplinary understanding of the psychological, economic, and sociocultural forces that dynamically shape worker behavior and organizational practices. In psychology, accumulating research in developmental lifespan psychology documents the different trajectories of growth, stability, and decline in human cognition, skills, preferences, and competencies over the lifespan. Taken together, these findings portray a complex picture of the individual as a "work in progress," whose contributions to the workplace develop and change over the lifespan as a function of biology and work and non-work conditions.

Research in industrial-organizational (I-O) psychology paints a similarly intricate picture of the role that age diversity may play in managerial practices, in key organizational practices, such as personnel selection and job training, and the impact that organizations have on major life decisions that workers make in later adulthood, such as when and how to retire. Findings in labor economics further show the role that societal laws, social norms, family demands, education, and gender may have on patterns of work participation in midlife and late life, particularly following periods of unemployment. As the contributors to this volume repeatedly suggest, a modern account of work life aging requires the contribution of findings from multiple disciplinary perspectives.

In addition to the aging trend in many national workforces, there have also been dramatic changes in the nature of work. As discussed in several chapters in this volume, jobs that demand heavy physical labor are on the decline and are being rapidly replaced by jobs that demand high levels of problem-solving and interpersonal skill. The near ubiquitous use of teams in organizations, for example, has created strong interest in understanding the role of age in how people get along with others in teams. In the organizationally flatter world of knowledge work, performance is often defined in terms of innovation, spurring new interest in understanding the role of age in divergent thinking.

Accordingly, we argue that it is not possible to study workforce aging without taking into account the changing nature of job demands; that is, that these forces operate in unison to create unique situations in which older workers may experience difficulty maintaining or finding suitable work.

The simultaneous aging of the workforce and changes in the nature of work create a host of new challenges for I-O psychology. Although there is a long history of research from the socio-technical perspective for understanding the impact of new technologies on worker performance, there is far less work directed toward understanding how these changes operate in an age-diverse workforce. Similarly, I-O psychologists have made substantial progress investigating the impact of inter-individual differences in knowledge, skills, and abilities on job performance. What is far less well understood, however, is the impact of intra-individual differences on the antecedents and processes that influence job performance. Understanding how and where these simultaneous trends operate in the vast and volatile modern employment landscape represents a critical first step in developing organizational practices that both promote older worker employability and organizational performance. Thus, a second major

objective of this volume is to identify the specific research questions that *need to be asked* and studies that *should be undertaken* in order to practically address the challenges associated with an aging workforce in a changing workplace.

This volume seeks to step into this breach, with the goal of setting an agenda for I-O research to address the coming age-related changes to the workforce. Specifically, our primary goal is not to review past research on age at work, but rather to identify what research we should be doing to address age in the workplace. In this chapter, we set the stage for this book, describing the demographic, economic, societal, and technological changes most relevant to the aging workforce; age-related changes that can affect the workplace; and how a use-inspired approach to I-O research can address these issues.

DEMOGRAPHIC PERSPECTIVES

It is widely recognized that economically developed societies are characterized by an overall process of aging. This process is a combined effect of two demographic trends: a general decline in fertility and an increase in life expectancy. Due to these dynamics, the composition of labor forces in these developed societies is changing, and additional change is expected in the coming 30–50 years. The aging phenomenon is exacerbated by the "baby boomer" generation (persons born between 1946 and 1964) that is now entering into the late career and retirement phases, without a new generation of the same size that is entering the labor market.

To provide some figures, the future scenario of the aging process can be summarized through an index, the *projected old-age dependency ratio* (POADR), widely used in demographic studies that seek to monitor changes in population structure. The POADR is the ratio between the projected total number of people aged 65 and over (usually retired people) and the projected number of people of working age (15–64 years old). The projection makes some assumptions about fertility rate, mortality (or life expectancy), and immigration in different countries. For this reason, the index is a good indicator for comparability across countries, although the overall accuracy is limited because of the high level of uncertainty of the assumptions (Eurostat, 2011; Kinsella & Phillips, 2005; United Nations, 2012).

Eurostat (2012a) produced a scenario based on 2008 data, using changes in the POADR from 1960 to 2060 in 27 European countries. This analysis provides critical insights into the adequacy of pension systems and sustainability of public finances. At the same time, it allows for some forecasts related to the age structure of the working population in the future (Giannakouris, 2008).

These documents can be summarized as follows. First, the portion of people aged 65 years or over is projected to become 30% of the entire population in 2060 from 17.1% in 2008. Second, the POADR is expected to increase to 53% in 2060 from 25.9% in 2010. That means that while today in the EU there are four working people for every retired person, in 50 years this ratio will be two working persons for each retired person. Third, among the EU countries there is strong variability in the aging process. For instance, the POADR will be particularly burdensome (over 60%) for Eastern European countries while it is expected to be lower than 45% for some Nordic countries.

Similar estimates for the USA (Eurostat, 2011) show that the POADR's growth will be from about 19.5 "older dependents" over 100 "workers" in 2010, to 36.8% in 2060; that is, an aging process similar to the European one, but less pronounced. A complete international comparison (Eurostat, 2011) shows that the level of old age dependency is variable between geographical areas, with a more critical situation in Japan and Europe. At the same time, the projections indicate that some developing countries, such as Brazil and China, which now have relatively low old age dependency ratios, will be not immune to the aging phenomenon in the future.

The trends analyzed with POADR assume certain structural processes (fertility, migration, life expectancy) that could potentially be influenced by national governments and international institutions only through long-term policies. But there are some other processes that could exacerbate the age dependency ratio and the sustainability of pension systems. The most crucial one of these is the employment rate for people aged between 55 and 64 years—a rate that, of course, is strongly related to the average age of retirement. In 2000, this rate was around 60% in the USA and Japan, 50% in all the members of the OECD (Organization for Economic Cooperation and Development), which includes more than 30 economically developed countries, and only 37% in the EU (27 countries). The European Commission established a target of 50% for 2010, in an attempt to encourage national governments to adopt policies for postponing retirement. In fact, this objective has not been achieved, considering that in 2011 the employment rate for people aged from 55 to 64 in the EU

(27 countries) was still 47.4%. Only 12 countries (of 27) in 2011 achieved 50%. In the same period, the USA (60%) and Japan (65%) maintain a quite stable rate, whereas the rate for the OECD countries reached 54% in 2011 (OECD, 2012).

Taken together, these data show, first, that there is a general historical trend toward postponing retirement and toward increasing the length of working life. This happened after a long period (during the first three-quarters of the past century) in which the working life has been progressively reduced. This general trend is consistent with improvements in life expectancy (today in Europe and USA the life expectancy at age 65 is 20 and 17 years, respectively, for females and males). This trend is also dictated by public finance constraints. Second, these data show that the pension systems seem still far from financial sustainability in some countries, mostly in Europe. Consider that in 2009 the average age of retirement in the EU was 61.4 years. In the future, the number of people still working at the age of 55–65 will increase in many geographical areas. This trend needs to be accompanied by social policies to improve the quality of working life for elderly people and organizational strategies to manage late careers. Third, there are some substantial differences in the rate of employment between countries and between geographical areas. These differences could have some direct effects on the economic systems of each country in terms of public debt (direct costs to pay pensions) and in terms of general competitiveness. These dynamics could produce intergenerational conflicts and the necessity to improve flexibility in the labor market and employment contracts for older workers.

ECONOMIC ISSUES

Related to these demographic shifts—longer lifespans, a general aging of the population, and, in some countries, a decline in birth rates—there are economic challenges on the horizon for both older and younger workers. These include the need for people to continue to work longer to maintain retirement systems that can no longer be supported by dwindling numbers of younger workers; an increased need for certain job types, such as medical jobs and those requiring post-secondary education; and employment challenges for persons at either end of the age spectrum.

First, longer lifespans, compounded by decreased birth rates in some countries, have the potential to place significant pressures on retirement

systems (European Commission and Economic Policy Committee, 2012). These issues have caused many countries to raise the statutory retirement age, although this has also been met with fierce resistance from some workers (e.g., Donadio & Alderman, 2012). Taken together, these events suggest that industrialized societies will need for people to work longer to be able to support their retirement systems; and that employers and societies will need to find ways to keep workers engaged, motivated, and productive, all with sufficient work-life balance and the best health possible. It also suggests that not only will the workforce age, with the workforce participation of those over 55 continuing to increase in both the US and Europe (Eurostat, 2012b; Toossi, 2012), but that people of very different ages will need to work side by side, at a rate previously unseen in industrialized workplaces. At the same time, working longer may be difficult for some older workers: although the number of the most physically demanding jobs may be decreasing—a good sign for older workers—significant numbers of people still work in physically demanding jobs (Johnson, Mermin, & Ressenger, 2011).

At the same time, economic projections indicate changes in certain sectors of the workforce, many of them due to the fact that the general population is living longer. For instance, due to the aging of the population, the number of medical jobs, such as nurses and home healthcare aides, is expected to grow significantly (Lockard & Woolf, 2012). However, many of these jobs require specialized training and have their own sets of physical demands (e.g., nursing and home healthcare aides) (Trinkoff, Lipscomb, Geiger-Brown, Storr, & Brady, 2003), which could pose challenges for older workers. At the same time, the numbers of jobs requiring post-secondary education are expected to continue to grow in the industrialized economies (Lockard & Woolf, 2012), a challenge for many workers both young and old.

In addition, the youngest and the oldest workers may be particularly vulnerable to economic downturns. For instance, the current high unemployment rates in the US and in Europe are producing pressures on workers at both ends of the age spectrum. In the US, older workers who lose their jobs are finding significant challenges with re-employment (U.S. Government Accountability Office, 2012). At the same time, in some European countries, the overall unemployment rates mask substantial differences between the fortunes of older workers versus younger workers (those under 25), whose unemployment rates had exceeded 50% in Greece and Spain as of summer 2012 (Froymovich, 2012; Thompson, 2012). These employment issues are putting pressure on the social safety net, such as

many younger people having to live at home. It is also leading to people needing to work in jobs for which they are overqualified (Erdogan, Bauer, Peiró, & Truxillo, 2011) and to older workers needing to continue to work longer or take on bridge employment to have sufficient retirement income. These unemployment issues may also lead to some generational conflict: paradoxically, although older people need to continue to work to support overburdened retirement systems, younger people may perceive that older workers are preventing them from entering the workforce. However, this perception does not seem to fit the economic reality, in that older worker retirements do not necessarily mean more jobs for younger people (Munnell & Wu, 2012).

TECHNOLOGY

When thinking of recent and future changes to the world of work, technology is likely one of the first factors to come to mind, but the impact of changing technologies may affect our work lives in even more ways than we may first realize. For example, rapid technological advances have created entirely new fields of work with increased employment opportunities and required skill sets while also making some long-standing fields obsolete. Even in more traditional jobs, there are continual changes in tools and equipment and increased reliance on the Internet to conduct business. Those increasingly rapid developments require a new mindset geared toward constant training and lifelong learning (Charness, Czaja, & Sharitt, 2007; Czaja & Sharrit, 2009). Moreover, much of the training itself will be delivered via new technologies (Charness et al., 2007; Wolfson, Cavanagh, & Kraiger, 2014). These advances also allow mobility in where people do their work, but at the same time may erase the boundaries of when people are "at" work (Burke & Cooper, 2008). Finally, this same technology provides access to a global workplace with multicultural teams (Olson & Olson, 2000). Each of these issues is given further attention below.

Types of Jobs

Constant and rapid technological developments change the nature of work by creating entirely new fields of work, as well as new jobs within existing fields, while at the same time eliminating others. O*Net continually updates its database service with jobs in "New and Emerging Occupations." Some

examples of recent additions include several jobs in tech-heavy occupations such as Geospacial Technology and Bioinformatics (O*Net, 2006). Reports also abound regarding serious decline in growth in more traditional occupations, such as watch/clock repair, camera repair, and postal service work (e.g., AOL, 2011). Interestingly, it is not necessarily technological changes for doing that sort of work that have endangered these occupations, but rather other technological changes in our daily lives that are leading to their demise (e.g., fewer people wear watches because they carry mobile phones with the time; film cameras have largely been replaced by digital cameras or smartphones; and email has severely cut back postal needs). Other occupations have experienced decline because of more direct technological advancements for completing job tasks (such as various machine operators).

Changing Job Processes

Even if certain jobs are not becoming extinct, there are some fundamental changes to the nature of how business is conducted across a wide number of fields, even those not known to be technology-oriented. For example, stock clerks track inventory with more sophisticated scanners, train conductors use scanners to track frequent riders, and warehouse forklift operators use increasingly sophisticated machinery. Small businesses can no longer survive without an active presence on the Internet and on social media (Facebook, Twitter, etc.). There are likely few remaining jobs where technology is not present and evolving.

Lifelong Learning Needs

With these changes comes a constant demand for learning new skills (Czaja & Sharit, 2009). Several challenges are inherent here. First, organizations should be investing in training for all employees regardless of age and tenure if they are likely to come in contact with changing technology. This may be cost-prohibitive, and some leaders may especially doubt the cost-effectiveness of training older employees, who are sometimes believed to have less capacity for development (Finkelstein, Burke, & Raju, 1995). The responsibility for continual learning may fall at least in part on the individual employees, requiring them to be proactive in seeking out developmental opportunities to stay on top of change. Though many employees continue to embrace learning across the lifespan, on average older employees as compared with younger employees may resist learning

opportunities out of resentment, fear, or lack of belief that they are truly needed for success, as past experience has not demanded them (Wolfson et al., 2014).

Technology-Based Training

Technology not only creates a need for continual training and learning, but it actually is increasingly likely to also be the medium by which that training is delivered, magnifying challenges. Technology-based instruction (TBI) (Kraiger & Ford, 2006) is a general concept engulfing all training that uses some kind of technological medium (video, computer, etc.) in its delivery. Although there are some aspects to TBI that could potentially level the playing field across age in terms of ease of use (e.g., self-pacing, privacy, and clear and immediate feedback), the features of many TBI programs involve some familiarity with the medium (less likely for older individuals) and cognitive processing capabilities that may on average diminish with age (Czaja, Sharit, Charness, Fisk, & Rogers, 2001; Wolfson et al., 2014).

Expanded Locations of Work

Technological advancement in computers, tablets, smartphones, and their associated software applications have given employees in a variety of fields the "freedom" to work remotely, be it from home, a more conveniently located satellite office, or the local coffee shop (Olson & Olson, 2000). In some ways, this can be advantageous to employees across the lifespan as it may allow for employees to more easily meet childcare or eldercare needs (Czaja & Sharit, 2009). Employees requiring special accommodations—sometimes due to afflictions accompanying aging—could perhaps utilize their current home-based accommodations, requiring less adjustment by employers. However, this "freedom" often comes hand-in-hand with a 24/7 connection culture that dissolves the lines between work and non-work that may be a crucial part of the well-being of employees' health and family lives (Burke & Cooper, 2008). It is interesting to speculate whether older employees who did not go through important life events during this connectivity culture (e.g., forging a new marriage or having children) may have had quite different relationships to those events than currently younger employers who are now embarking on those personal journeys while tethered electronically to work. Aside from the location and times where we do our work, the potential for whom we do it for and with has also expanded tremendously due to technology.

Virtual Teams

The composition of work teams is no longer restricted to those geographically collocated as technology has continually improved our ability to communicate in real time efficiently and inexpensively. Interest in the processes of virtual work has been on the rise, as the advantages to unlimited combinations of talent in a virtual team may be tempered by process loss due to different levels of trust and communication misunderstandings (Olson & Olson, 2000). Leadership of virtually located teams can also create challenges and require new skills among managers (Cascio, 2000; Zaccaro & Bader, 2002). Finally, virtual teams also increase the likelihood of employees from different organizational and national cultures working together on projects. More attention is given to the cultural issue in the following section, but this is truly a place of intersection among workforce trends.

CULTURAL ISSUES

In the previous section, we discussed how technological advancements have begun to break down previous limitations to distributed work teams—and one implication is that we now work with people across vast cultural boundaries. It is no longer just expatriates who must become accustomed to new cultural norms. Some of these norms may be particularly pertinent to our age-diverse workforce. For example, various countries and cultures may have differing age-related expectations regarding things such as how one communicates to elders, as well as differing beliefs and stereotypes about what behavior is appropriate at different ages (Perry & Parlamis, 2006).

Age norms for where one is "supposed" to be on the career ladder have become less stringent over time, but expectations about career timetables still linger (Lawrence, 1996; Pitt-Catsouphes, Matz-Costa, and Brown, 2010). These beliefs also extend into appropriate ages for retirement. Many of these expectations are likely to be at least in part culture-bound. Countries vary in the legal age for retirement, but norms and values—not just laws—likely influence beliefs. Multinational organizations must deal with not only the laws for retirement in their various locales, but also with the beliefs of local employees.

The increased preponderance of global corporations and outsourcing of work has also increased competition among organizations and also

among workers vying to promote themselves as adding value, particularly when quality labor may be available less expensively in another part of the world (Frese, 2008). There has been recognition in the careers literature for the past couple of decades that the milieu of a one-organization career is disappearing and being replaced by the expectation of a workforce that is more protean (Briscoe, Hall, & DeMuth, 2006). Those who have a more protean, proactive approach to career management are self-directed and tend to use their internal values, rather than external influences, as a compass to guide their career choices. Interestingly, though, they are not necessarily less committed to the organizations in which they work (Briscoe & Finkelstein, 2009). But there appears to be a growing understanding that the psychological contract between employee and employer is not necessarily as stable as it once was.

Though the career path of the white-collar sector appears more dynamic in today's environment, those in blue-collar jobs may find their career path more fragmented. In order to survive in the current economy, many workers worldwide must work multiple jobs and/or temporary jobs. Though that situation is challenging to juggle anywhere, in some countries, such as some EU countries, this may mean working with temporary and often undesirable or unfair contracts to make ends meet (DeCuyper, Notelaers, & DeWitte, 2009).

Finally, in addition to the ethnic cultural diversity brought about by global corporations, in any one particular country workforce diversity is on the rise. People across ages are working with and for others who are more likely to differ in gender, race, disability status, and sexual orientation than ever before. These issues may relate to age in a multitude of ways. For instance, older workers used to homogenous workforces are now facing a major change. Additionally, what aging means *to* and how it is perceived *by* workers from diverse backgrounds is likely to make the understanding of age effects at work much more complex. For example, within a given culture, the impact of aging in the workforce may differ for minorities and women compared with the majority and men (Goldberg, 2007).

THE WORKER: AGE-RELATED CHANGES

In this section, we briefly summarize basic findings with respect to age-related changes over mid- and late-adulthood that have relevance for the workplace and an individual's employability. Interest in age-related changes

that occur during adulthood has burgeoned over the past 30 years. Most studies to date have been cross-sectional, although the number of longitudinal studies that document patterns of intra-individual change over the adult lifespan has been steadily increasing over the past 15 years (e.g., Lucas & Donellan, 2011; van der Velde, Feij, & van Emmerik, 1998). There has also been greater research interest in generational or cohort differences in person attributes (e.g., Hansen & Leuty, 2012; Smits, Dolan, Vorst, Wicherts, & Timmerman, 2011). Studies of cohort differences are particularly germane for understanding the impact of multigenerational workforce on worker relations and teamwork processes. In contrast to research on intra-individual differences in person attributes over the adult lifespan, generational studies focus on contextual factors, such as culture and the common experiences of persons born during a particular period, as they contribute to between-cohort differences on attributes such as work values and attitudes.

Numerous reviews exist on the relationship between chronological age and specific person attributes, including cognitive abilities, knowledge, physical abilities, personality traits, and emotion regulation (e.g., Salthouse, 2012). Comprehensive reviews are also available on the relationship between chronological age and work-related variables, such as work motivation (e.g., Kanfer & Ackerman, 2004), work motives and values (e.g., Kooij, de Lange, Jansen, Kanfer, & Dikkers, 2011), work attitudes (e.g., Ng & Feldman, 2010), and job performance (e.g., Ng & Feldman, 2008). Although these reviews provide comprehensive information on the relationships between chronological age and specific person characteristics, they are difficult to cumulate with respect to how age-related changes operate in unison with work and non-work influences to affect the individual's work experiences and mid- and late-adulthood decisions related to job transitions, including retirement, career transitions, and post-retirement work.

The complexity of findings with respect to age-related changes in person characteristics is illustrated in Figure 1.1. As shown, chronological aging is associated with decline in some characteristics and improvement in other characteristics. Findings in the cognitive aging literature, for example, provide evidence for age-related decline in selective cognitive abilities and processes, though the rate of decline varies considerably from person to person. Although declines in cognitive abilities appear most pronounced with respect to fluid intellectual abilities and memory-related cognitive processes, recent findings also suggest that such declines are not uniform and may importantly depend on the individual's health. Recent findings

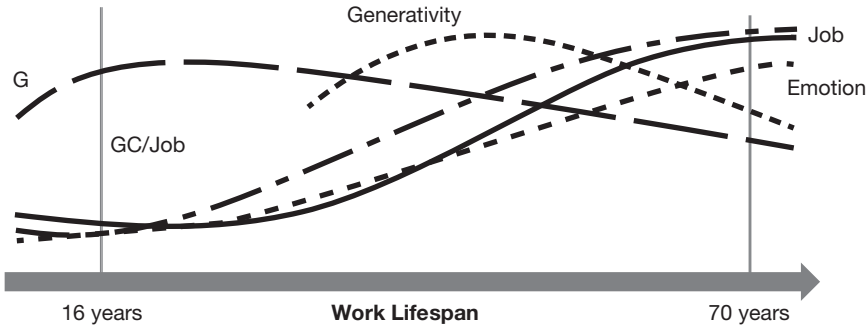

FIGURE 1.1
Trajectories of change across the work lifespan
Source: Kanfer, Beier, and Ackerman (2013)

also suggest that individuals may successfully compensate for gradual age-related declines in cognitive abilities by optimizing abilities such as declarative and job knowledge that tend to increase across the lifespan and to be preserved into late adulthood, and by creating work roles that make lower demands on cognitive abilities that are age-sensitive.

Age-related declines in cognitive abilities have often been interpreted as meaning that older workers are less able learners than younger workers, thus accounting for why older learners often perform more poorly than younger workers in standard job training programs. Recent investigations indicate, however, that older workers continue to learn, albeit sometimes more slowly than younger learners, particularly in training formats that make heavy demands on fluid intellectual abilities (Beier & Ackerman, 2005).

Findings in the social and personality domain also suggest selectivity in the role that chronological age per se plays in social skills and personality. Evidence from cross-sectional and longitudinal studies of personality change over adulthood indicate that although mean trait levels may increase or decrease over the lifespan, the individual's ranking on the trait tends to remain relatively stable across the life course. In the social skills domain, research on age-related changes in emotion regulation shows a gradual age-related increase in these skills.

Historically, person attributes such as physical abilities, cognitive abilities, and personality have been long held to co-vary in part as a consequence of the common role that genetic and psychobiological factors play in their development over the life course. At the same time, however,

these person attributes represent only one influence on older adult experience and adjustment. Over the life course, inter- and intra-individual differences in psychological variables interact with family and environmental affordances and constraints. These interactions in turn influence the individual's work history and experiences. In the US, for example, job tenure is typically positively associated with chronological age, higher pay, and increased job responsibility. Although these relations suggest that older workers fare better than younger workers, economic conditions that prompt widespread layoffs may be harder for older workers than younger workers. In contrast to younger workers, older workers who have not engaged in job search or job change for a decade or longer may lack effective job search skills in an increasingly technology-driven marketplace.

Taken together, the reviews on intra-individual change across the lifespan describe a complicated picture of how aging affects an individual's work attitudes, job competencies, and employability in late adulthood. On the one hand, age-related declines in select physical abilities and cognitive processes may encourage early retirement and/or midlife career transition among workers in jobs that place heavy demands on age-sensitive abilities. On the other hand, age-related increases in declarative knowledge, job knowledge, and interpersonal skills may strengthen work attitudes and facilitate performance in jobs that emphasize teamwork and innovation, particularly when working with persons they know well. For other older workers with long job tenures, the same changes in the nature of work and economic conditions may reduce motivation for maintaining employability or making a job transition in late adulthood.

CHANGING PERSON IN A DYNAMIC CONTEXT

As described in the previous sections, people of working age continue to change throughout the work-life span; at the same time, these changes are taking place within a dynamic demographic, economic, and cultural context. In short, psychological structures and processes within the worker are evolving over the life course, and the context within which this is evolving as well. Each of these issues has been discussed independently in this chapter, but the savvy reader can spot the connections among them, and these connections have significant implications for researchers in I-O psychology. For example, how do shifting age demographics impact the treatment of workers of different ages? Does the interplay of changing

age demographics and technological demands affect workplace training? Do technological advances, cross-cultural teamwork, and cultural norms differentially affect workers across the life course? These are only a few questions; the permutations of reciprocal influence are abundant.

A USE-INSPIRED, PERSON-CENTRIC APPROACH

Use-Inspired

In 1997, Donald Stokes wrote an influential book in which he argued for "use-inspired" research; namely, research that both informs basic understanding and responds to important practical problems. We believe that the confluence of advances in our understanding of the aging process, improved population health, and the increasing participation of older individuals in the workforce create ideal conditions for conducting research that can inform science, public policy, and human resource practice. Indeed, such work is already underway and beginning to have an impact on public policy, organizational practices, and worker routines. Studies that show age-related improvement in affect regulation, for example, provide evidence for the potential benefit of hiring older workers into customer service positions. Similarly, research on the determinants of retirement has recently broadened beyond the retirement event per se to examine the impact of pre-retirement work and the retirement process on workability and worker well-being after retirement. In countries characterized by a graying workforce, these findings have important implications for public policies that shape social norms for work and retirement, as well as for organizations seeking to develop and maximize workforce investments.

Person-Centric

For much of the 20th century, organizational scholars focused on worker behavior and performance using an organizational lens that emphasized the impact of person characteristics, work design, and managerial practices in terms of maximizing job performance. In the context of industrial economies, in which work products were typically performed on site and during scheduled hours, performance-centric perspectives seemed reasonable. In this perspective, theories of personnel selection, work motivation, and job design were frequently developed and tested using "technical"

performance criteria, such as number of units produced. The performance emphasis in organizational science was further supported by workforce demographic trends of the times. As a consequence of the post-WWII baby boom, organizations in the latter part of the 20th century were able to select workers from a large, educated group of younger workers. The ready supply of young talent in many countries along with mandatory retirement legislation during this period encouraged organizations to emphasize selection rather than training, and to develop talent early in the career path rather than during mid or later adulthood.

During the late 20th century, technological advances, globalization, and new demographic trends spurred increased interest in a person-centric perspective on work (e.g., Weiss & Rupp, 2011). In this perspective, work and its outcomes are understood from the worker's viewpoint, and emphasis is placed on sustaining high levels of typical job performance. The person-centric perspective focuses on how workers perceive their tasks and work relations, and perform their job in the broader context of non-work demands. Changes in the nature of work have led to increased use of teams and organizational structures that place a premium on interpersonal relations and "contextual" dimensions of job performance that require further understanding of the events and psychological processes involved in effective worker relations. At the same time, increasing age diversity in the workforce as a consequence of increased longevity, repeal of mandatory retirement legislation, and shifting norms on retirement age have created new organizational challenges with respect to leadership, training and talent development, and the process of work withdrawal in late adulthood. For example, research from the person-centric perspective indicates the key role that organizations play in effective worker transition to retirement and post-retirement adjustment. Conversely, in an increasingly networked economy in which employees are often customers and recruiters, organizations have focused greater attention on identifying human resource practices that sustain employee loyalty to the organization after separation.

In contrast to a performance-centric perspective that clearly demarcates task and non-task behaviors, the person-centric perspective focuses on the interface between work and non-work demands in their effects on worker stress and well-being, that in turn are posited to influence job performance. As applied to older workers, the person-centric perspective allows for greater understanding of the mechanisms through which age-related changes in later adulthood may influence worker motivation, job behaviors, and performance.

The Focal Approach

The adoption of a "use-inspired, person-centric" perspective distinguishes this volume from past work in several ways. First, chapters are organized around issues that have and are expected to emerge as a consequence of changing workforce demographics (e.g., retirement transitions), rather than by substantive topic (e.g., cognitive aging). We have asked the chapter authors to address the implications of findings for enhancing worker well-being in the context of policymaking and organizational practices that sustain competitive excellence.

Second, this volume will adopt a mixed model with respect to the relevance of issues for workers and organizations. Many of the challenges associated with the changing workforce pertain to the factors that contribute to successful aging and adaptation to a changing workplace (e.g., post-retirement job search). To address these issues requires a *person-centric approach* that emphasizes the worker's context and history. Other issues, such as managing an age-diverse workforce, are most relevant for organizational and human resource personnel, and reflect a more traditional *performance-centric perspective*. The proposed volume seeks to address both the person in the organization and the cultural context.

How Can I-O Researchers Address These Issues?

Our approach in this book is to ask: what research should be done in I-O psychology to address these complex patterns of change happening now and in the coming decades? Our distinguished chapter authors were faced with this question, and they accepted the challenge. Again, our approach in this book is not to have authors exhaustively review and catalogue existing research. Rather, in keeping with the spirit of a book chosen to be part of the "Frontiers" series, we use these looming issues as a guide to suggest what our research agenda should be in I-O moving forward in the area of age research. In other words, what research should we be doing to address these demographic, economic, technological, and cultural shifts?

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