

5. New insight regarding the ageing workforce: it is time to close this knowing-doing gap

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INTRODUCTION

The Western world faces an ageing of the population due to large cohorts born after the Second World War. Their life expectancies are increasing, their health is better as compared to previous generations, and smaller cohorts were born from the late 1960s and onwards (Bloom & Sousa-Poza, 2016). While these *unprecedented demographic changes* will impact all societal sectors in various ways, the discussion in this chapter is limited to some *inevitable consequences* for businesses, employers, and employees: to the access to and the composition of the future workforce (Bal, Kooij, & Rousseau, 2015; Taylor et al., 2016).

International organisations like the Organisation for Economic Co-operation and Development (OECD) (2006, 2019b) and the European Union (European Commission, 2015) have documented these demographic changes, and warned their membership nations about higher expenses following the combination of the increasing numbers of pensioners and their increasing life expectancies. Combined with the increasing length of youngsters' education, only slightly more than one third of a person's life might be spent in direct economically gainful activities, and near two thirds as supported by the minority in the workforce. The sustainability of such distribution of energy is at stake, as population ageing will lead to negative economic growth unless workers' careers are extended (Aiyar et al., 2016; Lai & Yip, 2022). Those international organisations have repeatedly called for willingness and actions by the workforce, the employers, and the governments to extend workforce careers (Johnsson, 2021; Pak et al., 2019). Most Western governments have attempted to meet these challenges, for instance, by raising or eliminating the mandatory retirement ages and changing pensions regimes to extend the workforce's careers, thus trying to impact the individual worker's behaviour. A growing body of research on older workers has appeared since the early 1990s, and the main

lessons learned imply that workers can and should work longer and that the workforce is becoming older on average, and more age diverse.

If the messages take effect, such extensions of workers' careers require that the older workers are *employable*, have *reasonable work ability*, are *willing to work*, and have *opportunities* to be gainfully employed (Johnsson, 2021; Pak et al., 2019). *Employability* implies that the worker possesses relevant competence. This is an outcome of the interactions between individual workers and organisational opportunities for the development of skills and insights and should be conceived of as a shared responsibility between the two (De Lange et al., 2021; Picchio & van Ours, 2013). A *reasonable work ability* implies that the worker possesses sufficient health and the required capacities for work. It is a holistic concept, meaning that the worker can anticipate doing his/her work in a healthy and productive way (Ilmarinen, 2009; Stuer et al., 2019). *Willingness to work* refers to the worker's actual choice of being gainfully employed, either by necessity of income or due to motivation, attitudes, and own values being compatible with available work alternatives (Johnsson, 2021). *Opportunities* implies that employers offer job opportunities that are motivating for career extensions (Wilckens et al., 2021). Such opportunities refer to the *structure*, as opposed to the individual worker's *agency*, which includes the employability, work ability, and willingness requirements (Alcover, Bargsted, & Yeves, 2022). Quite a few hitches have appeared and hindered rapid goal attainments because structural factors on organisational levels constrain the development of individual resources and thereby restrict the individual worker's agency (Sarandopoulos & Bordia, 2022). Business schools might and should make a difference to some of them, as will be discussed in this chapter.

Research and access to statistical documentation in this field has grown rapidly since the year 2000; however, *organisations are, by and large, unprepared* for the impacts of this ongoing demographic change (Van Dalen et al., 2010). Owners, boards, and leaders on all levels have been paying meagre attention to these issues (Kaderfors et al., 2020; Karpinska et al., 2013). Concerning workforce's age, leaders and managers are often *age biased* (Finkelstein et al., 2019), that is, governed more by *ageism* and related *norms, myths, and stereotypes* than by recent research evidence (to be discussed in the following, see also Pak et al., 2019). Leaders continue to let go and even deliberately lay off experienced workers who have still not reached their retirement ages, which has negative consequences for the effectiveness of their operations (Chen & Mykletun, 2014). Workers aged 50 years or more usually have difficulties in finding new jobs (OECD n.d.), which in turn creates a need for public agencies to offer programmes assisting older unemployed workers to get back to work.

The persons responsible for this sub-optimalisation are often *leaders trained in our business schools*. As business school professors, we *failed* in enabling

them to foresee the significance of this demographic change and to understand how to adapt to it. It was not a topic covered in their professional education, and the contributions of business school faculties to in-service training of leaders and board members have not alerted them to these issues. Simply speaking, our failures have probably contributed to the loss of sustainable career prospects (Stuer et al., 2019) for individual workers, and loss of resources for work organisations, thus increasing their problems in filling vacant positions with an efficient workforce. For societies at large, loss of man hours decreases the wealth outcome and means less resources for investment and public welfare.

The demographic changes and the need to focus on the workers' career sustainability should have consequences for teaching and research at business schools, and the time for a change in our leadership education is overdue. New leader attitudes (including cognitions, emotions, and behaviour) towards ageing and older workers must be developed, leading to new skills in age-adjusted leadership. As will be apparent from the discussion that follows, educating present and future leaders for age-adjusted leadership constitutes a much-needed avenue for the business schools to contribute directly to the eighth of UN's goals for sustainable development, and indirectly to all the remaining ones.

This chapter will briefly discuss the leak of workforce through the retirement of older workers, and some of the work-related challenges and opportunities that rise from the ageing workforce. This is followed by a discussion of some strengths and weaknesses of the ageing workforce. In particular, the focus will be on how older workers contribute to the working environment, how they perform, and contribute to innovations in the workplace. Further, the chapter discusses why most of us hesitate to attend adequately to the ageing workforce issues, and some recommendations for teaching age-adjusted leadership in business schools will conclude the chapter. Thus, it is an attempt to point to failures committed by us as business school professors and give some hints on how to start making up for it. An international perspective is integrated in the text, while also using Norwegian data and discussions to illustrate the case.

UNDERSTANDING SOME CHALLENGES RELATED TO THE AGEING WORKFORCE

Who is an Older Worker?

For this study, *an older worker is defined as an employee aged 56 years or more*. As no biological marker identifies when an individual becomes an old person, the concepts of older workers or ageing workers are *fluid social constructions*. The US anti-discrimination legislation defines ageing workers as workers aged 40 years and above, and early research on ageing and work

defined older workers as aged 45 years and above (Kossoris, 1948; Tuckman & Lorge, 1953), as did the first Scandinavian studies (Solem & Mykletun, 1997). The influential OECD (2006) document *Live Longer, Work Longer* set the limit at 50 years of age. In international research, the definition of older workers can vary between 40 and 65 years of age, with 50 years as a distinct mode age cut-off point (Harris et al., 2018). However, in Norwegian working life, workforce fortitude seemingly applies, as employees on average perceive a co-worker as being an older worker at the age of 58.4 years. This ‘old age limit’ has increased from 55 years in 2003 and peaked at 59.4 years in 2018 (IPSOS, 2020). To leaders, who hold more conservative perceptions, an older worker is aged 56.6 years, which is up from 52 years in 2003 (IPSOS, 2021). The observed increases are in line with the contact hypothesis (Allport, 1954; Paluck et al., 2019) to be discussed later.

Importantly, the statistics above are average numbers that varies across individuals, workplaces, and sectors. The lowest average ‘old age limit’ is found in the hotel and restaurant sectors, and the highest in the public sector. The limits correlate positively with the age of the perceiver (IPSOS, 2020, 2021). These ‘old age limits’ may be referred to as *social ages*. They are important because they impact on how the worker is treated at the workplace and seem to be ingrained in the age stereotypes held by the co-workers and leaders. For instance, when hiring new workforce members, leaders in the private sector in Norway hesitate to invite applicants aged 58 years and above for interviews, while this upper threshold is 62.7 years of age in the public sector. In both sectors, leaders prefer to recruit younger workforce members, even directly from school, instead of older workers. These limits correlate positively with the age of the leader and the size of the organisation (IPSOS, 2021). Some companies in the petroleum sectors start to exit their workforce with private pensions from the age of 58 years (Chen & Mykletun, 2014).

The Parallel Reductions and ‘Greying’ of the Workforce

Most Western countries are hit by reductions in their workforces not only due to the retirement of older workers (Bloom & Sousa-Poza, 2013), but also because of reduction in working hours per worker, extended years of education of the youth, and changing patterns of immigration. For instance, it is estimated that by 2024, 38.2 per cent of workers in the United States will be aged 55 years or older (Toossi, 2015). In about half of the EU countries, more than 20 per cent of the workforce will be older than 55 years by 2035 (Aiyar, Ebeke, & Shao, 2016). In Norway, 30 per cent of the population was 55 years or older in 2019, and by 2030, the proportion of the population aged 55 years or more will be 33 per cent and will rise to 37 per cent by 2050. Also, in 2030, and for the first time in history, the proportion of people aged 65 years and above will

outnumber the proportion of those aged zero to 19 years old. Today (in 2022), people aged 67 years and above constitute 15 per cent of the population, and this proportion is expected to rise to 26 per cent by 2060 (Gleditsch et al., 2020).

Parallel to, and partly as an effect of these changes, the overall labour force participation rates are declining across many nations. For instance, in Norway in 2021, 72 per cent of the population aged 15 to 74 years of age participated in the workforce (Køber & Horgen, 2022). In the United States, it is estimated that the labour force participation rate will be 61 per cent by 2026 (US Bureau of Labor Statistics, 2017). The EU workforce was expected to decline by 4.3 million people by 2020 (Eurostat, 2017), and is expected to shrink further by 12 per cent in 2030, and by 33 per cent in 2060 compared with 2009 levels (European Commission, 2010). The EU was experiencing shortages in 28 occupations, employing 14 per cent in the EU workforce in 2020 (27 million workers), and 19 occupations were classified as shortages of high magnitude. Healthcare occupations were prominently affected, as were technology occupations at all levels. The proportion of the population gainfully employed for at least one hour a week fell from 65 per cent in 2008 to 60.5 per cent in 2020, and the average weekly working hours were slightly reduced in all age groups during this period, except for those aged 62 years and older. In 2021, Norway reported a shortage of 252 broad occupation groups, which is by far the highest among the OECD countries (McGrath, 2021).

Further, average life expectancy in Norway is increasing from 73 years in 1951 to 91 years in 2060 for women, and from 69 to 89 years for men (Statistics Norway, 2022). The older part of the population enjoys better health conditions than people of the same age two generations ago, are younger, biologically speaking, compared to the same age groups 50 years ago (Skoog, 2019; Syse & Strand, 2022), and they live active lives. Life-style changes, more and better education, better nutrition, more frequent changes in societies, culture, and workplaces, better access to and use of information, and improved living and working conditions have led to these latter changes. The number of years in retirement has become extended, and a large proportion of retired people may enjoy a wider array of activities. Alternatively, they might expand their working career, which would alleviate some of the costs of extended time in retirement, and there is a need for their contributions in working life (Posthuma & Campion, 2009). In their recent annual report on access to competent workers, the Norwegian Confederation of Norwegian Enterprise (NHO) rang their alarm bells strongly and urged their members to retain their workers as long as possible (Rørstad et al., 2022).

The large cohorts of older people and the increased longevity adds strain to most sectors in the Western societies and impacts the retirement systems and other social welfare programmes. Added to the above, the younger share

of the population spends more years than before in the education system. As the fertility rate for Norwegian women is expected to rise from the current 1.5 to 1.7 (Statistics Norway, 2022), the number of new-born residents is too low to make up for the mortality rate. Immigration is declining and unstable, and the population growth, which was driven by immigration, might level out (Gleditsch et al., 2020). The shortage of available workforce is already observed and is expected to increase. There will be fewer workforce members available on the labour market to fill vacant positions as the older workers retire, and the ‘war of competence’ has started.

Added to the workforce shortages, an indirect challenge will hit both private and public sector organisations and their workforces as consequences of a negative development of the dependency ratio. This ratio indicates the balance between people gainfully employed and people of all ages outside the labour market who need resources to sustain their living. For example, while there were 3.8 persons of working age for every person over 65 in the EU in 2002, this number fell to less than three in 2020 (Eurostat, 2019). In 2015, Norway had 100 workers gainfully employed per 70 people outside the labour market, and this ratio is expected to change to 100 gainfully employed per 90 outside the labour market by 2060. The public debates and political concern have focused on the costs to society at large and to the pension funds. Higher taxes and increasing expenses for services, health, and welfare will follow to maintain the current standards of living.

In sum, these developmental trends will lead to shortages of available workforce across the Western world, and the cost of increases in pension expenses and care for the share of the population that are not in gainful employment. However, doomsday scenarios based on the demographic changes are not warranted (Bloo, & Sousa-Poza, 2013) as some remedy exists that may partly counteract the challenges discussed earlier. Among these, extended years of working careers for older workers will constitute a main contribution (OECD, n.d.).

Prolonged Working Life as Part of the Solution

The challenges presented above have created needs for making older workers delay their retirement. Some political measures have been taken to support these calls. Most nations have reformed their pension systems to reduce early exits from work and rewards extended working careers. A model often seen includes a ‘*window of work versus retirement opportunities*’, where a low age is required to start drawing on the pension funds, followed by an upper age limit at which it is legal for the employer to terminate the employment contract with reference to the worker’s age. A few countries have abolished this upper age limit. The annual pension to be drawn by the employee increases

the longer he or she extends their career within the ‘retirement opportunity window’. In Norway, this lower age limit is 62 years of age, and the upper limit is 72 years as the main rule in private sector; however, about 50 per cent of the workers in private sector are employed in companies still applying 70 years of age as the mandatory retirement age. Special rules apply to firefighters, police officers, and military staff, offering lower retirement ages. Further, the prevalence of the workforce who have retired before the age of 62 years on disability pensions or related economic support equals about 10 per cent of the potential workforce. During 2021, the government tried to raise the mandatory retirement age in the public sector from 70 to 72 years but withdrew the proposal due to heavy resistance from a large majority of responses involved in a public hearing on the issue.

To some extent, the Norwegian workforce have responded positively to the calls for extensions of their working careers; however, the picture is somewhat complex. The *average effective retirement age* in Norway is now (2022) about 64.5 years of age for women and 66.5 for men. For comparison, in 2018, the average retirement age for women was 60.6 years in the EU28, and 62.3 years in OECD36. For men, the average retirement age in EU28 was 64 years, and 65.4 in OECD36 (OECD, 2019a). The *preferred average retirement age* in Norway was 65.2 years in 2021, which was up from 61 years of age in 2003, and had peaked in 2015 at 66.2 years of age. The preferred retirement age correlates positively with the worker’s chronological age (IPSOS, 2020). Moreover, the actual retirement ages tend to be lower than the intended retirement in blue-collar occupations, and higher in white-collar occupations (Solem et al., 2014). The COVID-19 pandemic might have had a negative effect on the preferred retirement age of older workers (Hauge & Solem, 2022). However, a Norwegian study showed that the workers’ age was positively related to adapting successfully to working from home during the pandemic (Ingelsrud et al., 2022), supporting the finding that this group adapts well to new circumstances (Kooij, 2020). Such adaptive capacities are reasonable as this age group has experienced radical changes in their everyday and working lives; however, firm conclusions regarding COVID-19 should wait for further evidence.

Quite a few workers continue their working careers up to and beyond the mandatory retirement age of 70 (72) years. Norwegian workers aged 65–74 years have increased their participation in gainful work from 21 per cent in 2008 to 22.6 per cent in 2019, contributing on average 23.7 hours of work per week for their main employer. For these age groups, the last 40 years have shown dramatic changes in participation in gainful work. In 1980, 13 per cent of the women were gainfully employed, which decreased to 8 per cent in the year 2000, after which it increased to 15 per cent in 2019. Among men, 35% were gainfully employed in 1980, which decreased to 13 per cent in year

2000, after which it increased to 23 per cent in 2019. Thus, the increase in older workers' participation in the workforce began after some years of public discussions about the need for a reform of the pension system and prolongation of working careers, and not solely as a direct response to the reform that was enacted in 2011. Such discussions started in several countries from the mid-1990s (Phillipson, 2012; Walker, 2009). Similar trends are observed in the other Nordic countries. Likewise, the proportion of older people gainfully employed is increasing on average also in the OECD countries but at a lower level (Halvorsen, 2019).

An obvious consequence of the above is that most organisations will see an increase in workers' mean age levels, and the proportion of older workers will be higher than today. As estimated by OECD (n.d.), if the employment rates of older workers reach the level seen in 1970, more than 20 per cent of the workforce will be aged 60 years or more in Norway, Greece, Hungary, Iceland, Poland, Portugal, and Switzerland, while in Japan, this share will be 30 per cent. Other OECD countries will see workers aged 60 years or more constituting between 10 per cent and 20 per cent of the workforce. The workforce age distribution is not equally shared across organisations. Young organisations tend to have younger workforce and the well-established organisations tend to have older workers, but most workplaces are becoming more age-diverse because of recruitment prioritising the youngest applicants if available, thus young and old people working together will be seen more frequently than in the past (Boehm et al., 2014; Finkelstein, & Truxillo, 2013; Park, & Seongsu, 2015).

UNDERSTANDING LEADERS' DISTRUST IN THE AGEING WORKFORCE AND HOW AND WHERE THEY FAIL

What is the potential of older workers? To what extent will they increase the costs and lower the productivity of the organisation? How do they contribute to needs for innovation and change? Most leaders answer these questions in ways that mirror prevailing *myths* and *stereotypes* about older workers and work, instead of recent valid research-based evidence. Myths are statements that are half-truths, even fiction, based on social and generational stereotypes. Regarding age at the workplace, they hide and distort some of the realities of ageing and being an older worker (Kay, 1999). There are mutually reinforcing relationships between myths and stereotypes. Stereotypes are widely shared attitudes shaped by myths and other contextual factors, presuming that all individuals in a group or generation share the same characteristics. They mirror generalisations that simplify the demands on thinking and feeling, thus promoting adaptation and allowing for reorientation of cognitive resources and

attention to non-routine tasks, thus freeing the perceiver from carefully processing new information (Furunes & Mykletun, 2011; Posthuma & Campion, 2009).

Myths and Stereotypes of Older Workers

Common myths of older workers convey a picture of individuals that are less trainable, inflexible, inefficient, and lacking necessary physical capabilities and technological proficiency. Harris et al. (2018) and Ng and Feldman (2012) reviewed research on such negative stereotypes and showed that older workers were stereotyped as being less competent, having decreased performance capacity, decreased capacity to use new technology, limited physical and mental capacity to perform at work, and were less interested in challenging work. Further, they were less keen to be involved in training, which matched employers' lack of investment in the training of older workers. Employers held negative attitudes towards older workers in relation to adaptability, flexibility, and willingness to change. Respondents aged below 35 years held the most negative perceptions of older workers' productivity.

Other researchers have added to this pile of myths. Berger (2009) found that unemployed older workers felt that they were perceived as poor investments by employers. Dutch employers did not conceive of older workers as valuable assets in relation to future labour market shortages (Van Dalen et al., 2009). Further, there is a pervasive belief that older employees are less creative and innovative than their younger colleagues, as they were believed to be less flexible, less open to change, and less motivated (Rietzschel & Zacher, 2015). In a laboratory setting using vignettes as stimuli, Henkens et al. (2009) found that Dutch business students considered *performance-related individual* characteristics when making selection decisions about retaining or letting go older workers; but failed to recognise contextual influences and workers' personal wishes and plans. Thus, their responses coincided with the traditional mantra of the business schools – to serve the economic interests of the stakeholders. Henkens et al. (2009) also argued that early exit is the dominating cultural trend in the Netherlands, which might have influenced the students' decisions.

A few researchers have contributed to the myths about older workers as less productive. For instance, Lehman (1943; see also Boley, 1946) proposed that intellectual achievements and physical activity peaked in the early 30s and waned thereafter, more rapidly for physiologically demanding tasks than for intellectual achievements. However, early critical voices nuanced this pessimistic

mistic view. In 1948, Kossoris stated that workers above 45 years of age were discriminated against in working life:

In part, the reason for this discrimination is that the work to be performed may call for the agility and stamina that belong to youth and early middle age. There is no question that the physiological changes that usually come during the forties modify the work capacities of men and women considerably. But the older worker, in turn, frequently offers more highly developed skills and more mature judgment. He tends to be more settled in his work and social habits. His life usually is conducted on a more even keel, and less subject to the emotional upsets inherent in the raising of families. (Kossoris, 1948, p. 16)

His own study showed that the only disadvantage of older workers was that their disabilities lasted longer once they are injured, but they were less likely to be absent as frequently and less likely to be injured than their younger colleagues (Kossoris, 1948). Tuckman and Lorge (1953) showed that workers aged 45 years or more had difficulties finding new jobs if made redundant. The reason was prevailing myths such as older workers being stereotyped as being slow, increasing the production costs, having higher accident rates and being a poor investment, resenting younger supervisors, resisting new procedures and work methods, having a higher rate of absenteeism, and being hard to get along with.

From Myths and Stereotypes to Ageism and Its Consequences

Negative myths and stereotypes about older workers are major antecedents to and integrated in *ageism* (Ayalon & Tesch-Römer, 2018; Iversen et al., 2009; Solem, 2020). Age is one of the first things we notice about other people. Ageism arises when age is used to categorise and divide people in ways that lead to harm, disadvantage, and injustice and erode solidarity across generations, and it has severe consequences for the health and well-being for its victims (WHO, 2021). The notion of ageism was first coined in 1969 in the US by Robert N. Butler:

... we may soon have to consider very seriously a form of bigotry we now tend to overlook: age discrimination or age-ism, prejudice by one age group towards other age groups. If such bias exists, might it not be especially evident in America; a society that has traditionally valued pragmatism, action, power, and the vigor of youth over contemplation, reflection, experience, and the wisdom of age? (Butler, 1969, p. 243)

Understanding ageism is critical for professors whose mission is to do research about and educate (future) managers in the issues of the ageing workforce. At the outset, Butler drew parallels between ageism and racism, and later, he

added sexism to the list (Butler, 1975); however, the parallels do not fit well, as everybody will move into the category and identity group of an elderly person if they stay alive, whilst changing ethnic group is impossible and very few will change to another gender. Leaning on the tripartite model of attitudes (Allport, 1954; Rosenberg & Hovland, 1960), *ageism* is defined as *stereotypes* about, and *prejudice* and *discrimination* against, older workers because of their chronological age or because of being categorised as older workers (Solem, 2020, p. 585).

The stereotypes are the cognitive components where myths are influential for evaluations and action planning. Age stereotypes are notoriously persistent in organisations: older workers are often perceived to be frailer and more dependent than in reality, and less productive than their younger counterparts (Ng & Feldman, 2012; Posthuma & Campion, 2009). Negative age stereotypes are ‘in the air’ (Steele, 1997), more or less salient, and may be felt as subtle or open threats by older workers. Such *stereotype threats* may absorb energy and gradually reduce their work engagement, thus establishing a self-fulfilling prophecy that depletes some productivity potential of the organisation (Kulik et al., 2016; Walton et al., 2015).

Research on the stereotype content model (to be explained later) indicates that older people in general are conceived of as warm-hearted and incompetent (Cuddy et al., 2008). Such stereotypes function as prescriptive behavioural stereotypes and violating them by demonstrating capacities at variance with the age-related expectations might lead to sanctions. Violators of such prescriptions are likely to be perceived more negatively in terms of warmth, competence, and desire for workplace interactions (Hanrahan et al., 2022). Moreover, this might be a partial explanation for the findings that older people tend to learn employing *self-stereotyping*, reflecting the prevailing stereotypes in their environment. An alternative explanation is that they learn self-stereotyping through assimilation from the surrounding culture across the lifespan and through different pathways as predicted by the stereotype embodiment theory (Levy, 2003; 2009). Thus, individuals integrate stereotypical information into their self-evaluations of age(ing) when confronted with age stereotypes. Such self-stereotypes may become detrimental to both health and daily functioning by triggering age-stereotypical behaviour (Kotter-Grühn & Hess, 2012; Schuurmann et al., 2022).

In the absence of insights from recent research findings about age and work or from their own genuine experiences with older workers, such stereotypes might reign in the brains of the (future) leaders as *lay theories* (Levy, Chiu, & Hong, 2006) that *age bias* the ways they think and feel about older workers and impact on their treatment of these workers. Lay theories are based on intuition and anecdotal evidence rather than on systematic hypotheses testing seen in science; and integrated in cognitions in general, they serve as guidelines for

everyday sense-making (Hong, Levy & Chiu, 2001), influencing a wide range of psychological phenomena (Madan et al., 2019). Age biases are here seen as interwoven with lay theories and appear as inadequate cognitions, affects, and behaviour blatantly or underhandedly displayed towards people due to their perceived age (Finkelstein et al., 2019), in essence, leading to ageism. They may be enacted more or less consciously, and they will most likely appear as a rather systematic way of treating the older workers, whether employed or applicants for vacant jobs. For instance, Norwegian leaders who have *no* employees aged 67 years or above in their workforce hold less favourable evaluations of a broad range of capabilities of this workforce as compared to leaders who have such workers (IPSOS, 2021). This is in line with the contact hypothesis, which proposes that contact with out-groups (such as older workers) will gradually weaken the effects of stereotypes held against this group (Paluck et al., 2019). Lower levels of knowledge of ageing, and less frequent and lower quality of contact with older adults uniquely predicted ageism (Cooney et al., 2021). Some studies have found that some managers hold positive conceptions of older workers' performance (Egdell et al., 2020; Solem, 2016; 2020). Based on analysis of the Dutch employers' survey from 2000 to 2009, Conen et al. (2010) found that employers reduced their recruitment of older workers during the recession in 2008–09, while efforts to retain older workers had improved up to 2008. The same shifts in business cycles produced some immediate reactions among Norwegian managers. The protection of older workers during downsizing (the seniority principle) lost some support, but only during the first half-year, and was observed only in the private sector. The public sector managers changed attitudes on a smaller scale and in the direction of increased support for the seniority principle (Solem, 2012).

The affective component of ageism and age biases is *prejudice* that involves evaluations, such as like or dislike, of the person in focus. The affective reaction might be filled with ambivalence between positive sentiments such as pity or feeling sorry on the one side, and negative sentiments such as disgust or fear on the other. One important aspect of these dislikes may be discussed considering the terror management theory (Martens et al., 2005). According to this, an encounter with an elderly person might stimulate the latter kind of feelings by reminding the perceiver about the fact that ageing and death will eventually take us all, and that loss of self-esteem and helplessness may precede death. As a response, the perceiver will apply psychological defence mechanisms to distance him/herself from the elderly person, resulting in ageism. The theory explains how the mere presence of aged people may create discomfort by reminding about weakness, illnesses, and the end of life. Thus, ageism may be a consequence of anxiety of own ageing and death (Cooney et al., 2021). Such phenomena fit badly into the business schools' focus on growth, prosperity,

and success, and might contribute to professors, by and large, ignoring this topic in their teaching and research.

The *behavioural* component of the tripartite ageism and age bias model is direct or blatant and subtle or indirect *discriminatory or unfair acts* against individuals and groups based on age, both positively and negatively, at either the individual or the institutional level (Furunes & Mykletun, 2010; Marcus & Fritzsche, 2016). EU legislation distinguishes between direct and indirect discrimination. *Direct age discrimination* is treating a person less favourably than another in a comparable situation because of his or her age. *Indirect age discrimination* occurs when an apparently neutral provision, criterion, or practice would disadvantage people on the grounds of age without being objectively justified by a legitimate aim (Furunes & Mykletun, 2010). Such discriminatory acts are fostered by myths and stereotypes (Solem, 2020), and some of them, such as mandatory retirement ages, serve as practical administrative tools so well established that they are not even conceived of as direct age discrimination. On an *individual level*, age discrimination examples include being bypassed in recruitments and promotions, left out of training programmes or salary increases, or made redundant or exited due to age but before a mandatory retirement age. On an *institutional level*, examples may be exclusion of employees from training programmes, salary policies, and exit procedures based on age, as well as the commonplace enforcement of obligatory retirement ages. The US, New Zealand, Australia, Canada, Denmark, and the UK have all banned obligatory retirement ages, while the EU and Norway only ban unfair treatment in working life based on age while accepting mandatory retirement ages, and thus, mandatory retirement ages are made legal forms of age discrimination in these countries. Norway included age discrimination in the Working Environment Act from 2004, and two years later, in the EU, all countries were obliged to implement legislation to protect workers from discrimination on the basis of nationality, gender, race, ethnic origin, religion, disability, age or sexual orientation.

Age discrimination may also be characterised as *hard* or *soft* (Stypinska & Turek, 2017). Some hard age discrimination is behaviour that in some countries is prohibited by law, such as recruitment based on applicants' ages. However, as workers aged 50 years or more struggle hard to find a job if made redundant, such laws might have limited effects. Soft age discrimination includes hints, jokes, avoidance, and bypassing of different kinds that constitute the social slang and the agreed-upon practice at the workplace. Both hard and soft age discrimination might offset the stereotype threat for the older worker.

Occurrence of age discrimination varies across countries, workplaces, and study methods applied, and frequencies from 1 per cent to 71 per cent of the older workers have been reported as victims (Furunes, & Mykletun, 2010). In Norway, IPSOS (2020) have reported data on workers' experiences of age dis-

crimination annually, covering the time span from 2003 to 2020. Respondents who had never experienced or observed age discrimination at work varied between 44 and 49 per cent, while between 18 and 25 per cent had experienced or observed age discrimination very frequently, frequently, or now and then. In 2020, the highest occurrences of age discrimination defined in this way were reported in finance (36 per cent) and in hotels and restaurants (29 per cent), while the lowest were reported in agriculture and forestry (14 per cent). When searching for specific areas of age discrimination, exclusion from competence development programmes was reported by between 17 and 23 per cent, older workers getting less increase in salaries was reported by between 17 and 23 per cent, and older workers being bypassed for job promotions was reported by between 21 and 31 per cent. In general, such discriminatory acts are likely to function as stereotype threats for older workers and strengthen the negative self-stereotyping. In addition, the exclusion from participation in introduction of new technology and new working methods will also hinder the older workers' competence development and reduce their employability.

Ageism has mainly been researched on the level of the individual, but may also be observed on a meso-level such as networks and work teams, on macro-levels such as organisations, and in the culture at large (Iversen et al., 2009). Attitudes towards elderly people vary across cultures; however, this is still an under-researched field (Marcus & Fritzsche, 2016). Departing from cultural psychology, they argue that individual *age biased outcomes* such as self-stereotyping and other reactions to exposure to ageism are direct outcomes of age-group membership. Psychological processes such as self-identification and social norm acceptance have a mediating effect between the two. Core societal cultural dimensions with their ingroup collectivism and tightness versus looseness moderates the relationship between age-group membership and age-based outcomes. So do also the core peripheral cultural dimensions, organisational cultural dimensions, and core individual cultural dimensions. The model is left open for empirical tests. Along these lines, Schuurman et al. (2022) found that expressions of self-ageism (older people's ageist attitudes towards other older people) with a few exceptions tend to be pan-culturally pervasive and are less pronounced among older adults reporting to be independent. Bodner and Cohen-Fridel (2010) showed that self-ageism is a multifaceted concept and that secure elderly adults expressed less ageism and a better quality of life than insecure elderly adults, while quality of life was negatively correlated to ageism.

A relevant study made by North and Fiske (2015) examined attitudes towards older adults from 23 countries and over 21,000 participants in a cross-cultural meta-analysis. Against popular beliefs, they found that the most negative attitudes against older adults were from the East. Positive attitudes towards older adults were associated with more individualistic cultures.

Thus, older people are treated with more respect in Western (more individualistic) cultures than in Eastern (more collectivistic) cultures. Opposing this, Ackerman and Chopic (2021) reviewed studies on ageism and culture and concluded that individualistic cultures are more negative towards older people than collectivistic cultures. Their review was based on altogether 911,982 participants from 68 countries and is thus the most comprehensive knowledge base for these issues today.

Ageism is ingrained in our culture to an extent that those not exposed are rather unaware of it. The ‘virus’ has spread almost world-wide and is therefore hard to defeat (Palmore, 2015). Even more thought-provoking are the findings of Ng and Chow (2021) that ageing narratives have become more negative over the last 210 years as deemed from analyses of newspapers, magazines, and nonfiction books. Pre-19th century, the few adults who became old possessed esteem and authority. Post-19th century, however, modernity led to ageing no longer being framed as a natural process but as a series of social problems. They related these changes to the medicalisation of ageing and loss of status, warmth and competence, and to social exclusion.

The ageism issues have detrimental consequences for the individual as discussed above and will also be counterproductive for the organisation (Posthuma & Campion, 2009). In absence of corrective insights from the business school faculty and educational programmes, such myths, stereotypes, and ageism will prevail as functioning lay theories among future leaders. The myths, stereotypes, and ageism issues discussed above may be inconvenient for business school professors to work with for research and teaching and, thus, it is unlikely that corrective insights will be included in business school education unless new paradigms are installed. But corrective insights exist.

NEW RESEARCH-BASED INSIGHTS THAT BATTER MYTHS AND STEREOTYPES ABOUT OLDER WORKERS AND CONSEQUENT AGEISM

Several researchers have for some time tried to defeat the myths and stereotypes about older workers and the consequent ageism by means of research-based evidence. However, their research has not effectively penetrated the grid of lay theories, myths, and stereotypes. Moreover, there is a wide and significant knowing–doing gap that delays the needed changes. Three areas will be discussed in the following paragraphs – older workers and central aspects of the work environment; the older worker and performance; and older workers and innovation and change in the workplace.

Older Workers' Contribution to the Work Environment

Most leaders of today have acknowledged that a good work environment is a central antecedent to sustainable business development, and older workers contribute to several positive aspects of the work environment. Ng and Feldman (2008) have provided a meta-analysis on the relationship between age and selected non-core task variables as possible drivers to a good work environment. Organisational citizenship behaviour, rated by both self and by others, was positively related to age. Complementary to this, counterproductive work behaviour and on-the-job substance use rated by self was negatively related to age. General absence rates and non-sickness-related absence were negatively related to age by objective measure, while sickness-related absence was positively related to age by both objective and subjective measures. Safety performance in the sense of work injury frequencies, both self-rated and objectively measured, weakened as the workers age increased, as did self-rated workplace aggression and self-rated and objective tardiness.

In a recent meta-analysis including more than 200 studies, Pletzer et al. (2022) found a negative relationship between age and *workplace deviance*. Moreover, the personality traits of conscientiousness, agreeableness, honesty–humility, neuroticism and the disposition of negative affectivity mediate this relationship. These personality characteristics are known to slightly alter over the lifespan as responses to interactions with changing environments (Roberts et al., 2006). Thus, as they age, people become more conscientious, more agreeable, show more honesty and humility, become more emotionally stable and show more positive affect in response to new experiences, challenges, and environments. Reviewing research on age and innovation, Rietzschel et al. (2016) state that conscientiousness, agreeableness, and social dominance increase with age. Further, age is positively related to perceptions of job autonomy and negatively related to perceptions of job stressors. Liborius and Kiewitz (2022) showed that age is negatively related to competitiveness, neuroticism, and turnover intentions. It is argued here that these characteristics contribute to a healthy work environment.

According to the *stereotype content model* (Cuddy et al., 2008), a common stereotype of older people is that they display warmth, but they are not so competent. The warmth-dimension contains characteristics such as being good-natured, trustworthy, tolerant, friendly, and sincere, while the competence-dimension includes efficacy, skill, creativity, confidence, and intelligence. These dimensions are important within a work environment because they inspire perceptions of others and drive perceivers' emotional and behavioural reactions. Anticipation of others as warm individuals is part of predicting the other's intention in a relationship. Warmth represents an accommodating motivational orientation that profits others more than

the self, whereas competence represents self-profitable traits that support problem-solving abilities. In the context of a work environment, warmth may contribute to a supportive social climate, while not being competent leads to being set aside, discriminated against, and not perceived as a competitor. Hence, the combination of high warmth and low competence may have positive effects on the work environment, but it is a mixed blessing for the older worker.

The *socioemotional selectivity theory* (Carstensen et al., 2003) supports the perception of older people as warm individuals. The theory postulates that older persons' perceptions of shortening time left in life lead to motivational shifts towards emotionally meaningful goals. In turn, increased attention to emotional goals leads to increased complexity of emotional experiences and better regulation of emotions experienced in everyday life, thus increasing the attention to current feeling-states and optimisation of emotional experiences, and emotionally meaningful social partners are prioritised. Response-focused emotion regulation is shown as age-related changes towards calmness when coping with negative events. As for cognitive processing, older people attend to and better remember positive over negative information, and attend to present events. The changes occur both by effort and as automatic strategies that aid emotion regulation. Contrary to reduction in physical abilities and fluid intelligence, emotion regulation shows stable, if not enhanced, abilities well into old age. Social relations tighten and become emotionally closer, and memories become more positive and emotionally meaningful. This move towards positive emotional sensations and meaningful social relations may turn older workers into positive emotional resources in the work environment.

Researchers agree that *generativity* at work is a resource which contributes mainly positively to employees' well-being and organisational outcomes. It functions as a motive and the related behaviour supports and guides younger people and allows the older worker to leave something behind to the benefit of 'future generations' (Villar et al., 2021). The concept plays an important role in Erikson's (1950) psychosocial developmental theory. He conceived of generativity as a task to be accomplished by the individual in his/her middle age. Along these lines, Mor-Barak (1995) found generativity to be a motivation that is unique to older adults, referring to view work as a way to teach, train, and share skills with younger generations. Kanfer and Ackerman (2004) integrated generativity as a motive with socioemotional selectivity theory and argued that older workers prioritise the collaborative nature of goal accomplishments above that of competition with colleagues. In line with this, Shavit et al. (2022) conclude their brief review of age-related differences in work motivation by stating that '...older workers are more motivated to engage in work tasks such as helping that affect emotional well-being in the present, whereas younger workers are more focused on professional growth at work' (p. 2). However,

in their experimental study, helping behaviours were displayed by older workers only when participants' time horizons were unspecified, as compared to restricted or expanded. They conclude that for helping behaviour to take place, time horizons are more important than age. Leaders might thus increase helping behaviour in age heterogeneous teams by convincing older workers that they are welcomed to stay with the company for an unspecified, but great length of time.

Generativity is supposed to be adaptive in the sense that it contributes to personal development and well-being and might fit well into the need for knowledge transfer, leadership, teaching, and mentoring in the workplace (Doerwald et al., 2020). These authors conducted a meta-analysis of the relationship between generativity and several individual outcomes based on 48 independent samples ($N = 15,356$). They concluded that the generativity motive is positively related to person-related (age, tenure, agency, communion, and work centrality) and context-related (challenging job demands and job autonomy) antecedents. Further, the generativity motive is positively associated with motivational (work motivation and occupational self-efficacy), well-being (positive affect, job satisfaction, and self-esteem), and career-related outcomes (mentoring relationship quality, and career satisfaction). Regardless of age, generative behaviour will have positive impacts on the receivers at the workplace as well as their environment. Again, one can observe that older workers may contribute positively to the work environment.

Employee green behaviour (EGB) has become an important new dimension in organisational behaviour studies and adds significantly to the list of non-core tasks. It may be defined as workers' scalable actions and behaviour linked with and contributing to environmental sustainability. A recent meta-analysis of 135 independent studies showed that workers' age and tenure was positively related to employee green behaviour, which contributes significantly to making organisations more environmentally sustainable (Katz et al., 2022).

In conclusion, one may state that older workers may contribute to positive qualities of the work environment in ways that most likely increase the effectiveness and productivity of the organisation.

Older Workers and Performance

The dominant logics of early research have established that worker performance peaks between ages 30–40 years and declines soon thereafter (Charles & Carstensen, 2010; Skirbekk, 2008). Such research findings are often reported in studies based on economic theories and methods and have been heavily criticised for inadequacy in measurements and study designs (Börsch-Supan & Weiss, 2016; Guzzo et al., 2022). Human resource management practices have erroneously been inflicted with these lines of thought, which align with lay

theories and prevailing stereotypes about age as older workers being of declining value and mid-life being ‘the prime age’ of the workforce. Both work and workers are changing, however, and newer studies are informing both theory development and practice otherwise (Ackerman & Kanfer, 2020).

The concept of performance in organisations is multifaceted (Hedge & Borman, 2019). They differentiate between core task performance, citizenship performance, counterproductive behaviour, and adaptive performance. The previous discussion has included the most important aspects of citizenship performance and counterproductive behaviour. Adaptive performance includes capacities to deal with unpredictable situations, learning, and coping with stress and crisis. Few studies have so far addressed such issues, and older workers fare well only on some of these adaptive performance dimensions. A review by Komp-Leukkunen et al. (2022) concludes that older workers cope well with digitalisation, provided relevant training, leader support, and a supportive team climate. However, as stated by Shaie (1994), the variability in learning outcomes increases with age.

Research within psychology with focus on individual level more often concludes that the relationship between age and core task performance with a few exceptions is weak (Guzzo et al., 2022). Older workers may be advantageous when experience and expertise are important, and physical strength and reaction time is less important. A decline in age-related performance is limited to some tasks where less experience is needed, but where physical strength, rapid shifts of attention, and fast reaction are required, and time pressure is the rule more than the exception (Warr, 1994). However, experience might compensate for slower reaction time (Ng & Feldman, 2013c), and expertise and domain-specific knowledge developed through practice may compensate for weakened fluid intelligence and be beneficial for performance (Hedge & Borman, 2019). Experiments with response tasks shows that response time is slowing down slightly from age 20 years; however, the slowing down was attributable to increasing caution in decision making rather than slower mental speed (von Krause et al., 2022). Age-related decline in performance is also observed in work that is less cognitively demanding (Hedge & Borman, 2019; McDaniel et al., 2012). Else, recent research questions the age–performance decline assumptions as general beliefs to an extent that these beliefs might better be regarded as negative ageing stereotypes. Recent research has shown that the human brain possesses more plasticity than previously claimed, implying less decline in cognitive functioning with age. More education, improved living conditions and lifestyle, rapid changes both in the society and in the workplaces, and demanding work tasks and more learning options at work seem to act as external drivers of improved capacities of the workforce over the lifecycle (Ackerman & Kanfer, 2020; Pauwels et al., 2018; Skirbekk et al., 2012; 2013).

Two empirical studies might serve as illustrating examples. Kyvik and Olsen (2008) studied performance measured as academic publication outputs of Norwegian university faculty members. They sampled publications over three separate three-year periods from 1979 to 1981, 1989 to 1991, and 1998 to 2000. They expected to find inverse U-shaped relationships between age and performance, but this applied only for the first sample. For the second sample, a drop after mid-life was observed but the oldest group was almost equal to the mid-life group. For the third sample, there was an increase in performance from the start to the oldest group. Without further documentation, the authors assumed that the unexpected outcome of the second and the third samples probably mirrored less important or lower quality publications, thus revealing implicit stereotyping of their older colleagues and, in spite of the opposite findings, they argued that 'Prevailing hypotheses indicate that old staff function on a lower intellectual level, that their skills have become obsolete, and that they are unable or reluctant to shift their research focus' (p. 16).

Another interesting study measuring performance was conducted by Börsch-Supan and Weiss (2016) in a Mercedes-Benz lorry production site. This production required both physical strength and agility and was deemed as representative for such production industries. They combined automatically logged data of time, productivity, and errors occurring in the production process with information on the personal characteristics of workers related to the errors. They found an increase in average age-productivity profile of individual workers up to the age 65 years, which was the retirement age. Further analyses showed that the positive age-performance relationship was due to experience. Compared to their younger colleagues, the older workers made fewer serious mistakes, grasped difficult situations, and concentrated on the vital tasks when under stress.

One of the foundations for the stability of the performance in late careers is the ability for the human being to change and improve its coping strategies by means of selective optimisation with compensation (also known as SOC strategies), across the lifespan (Baltes & Dickson, 2001). For instance, Taneva and Arnold (2018) found that use of such strategies by the individual was directly related to performance, and optimisation specifically affects performance via thriving.

Moreover, changes in motivation with increasing age may complicate the age-performance relationship even more (Ackerman & Kanfer, 2020). Older workers are stimulated by jobs that require development of expertise and high-level performance. Further, motivation to work tends to change from external to internal by increasing age, thus, older employees may be less driven by motivation to work for financial reasons (external) and more by motivation to work for the content of the work and its psycho-social context (internal). Kanfer and Ackerman (2004) emphasised that work motivation will

be influenced by the rewards received as compared to the investment provided by the worker. External or internal motivation regardless, this opens the way for leaders to provide recognition, approval, stimulating work, and material rewards instead of a work environment inflicted with ageism.

Finally, retirement has changed seriously from on/off to prolonging the work relationship, often with a lower intensity or fewer weekly hours. Reviewing motivation to work after retirement, Mykletun (2015) concluded that enjoying work is a central theme for many older workers, and some workplaces offer access to sociopsychological, economic, and technical resources that older workers find more attractive to be engaged in than those made available in the leisure contexts. In Norway, this occurs more often for men than for women. For instance, Li et al. (2022) showed that an age-inclusive organisational climate oriented towards developing older workers interacted with individual growth needs and was positively related to training participation and to continuing working despite eligibility for the retirement pension.

Several meta-analyses have found inconsistent, none, or weak connections between age and performance. Waldman and Avolio's (1986; 13 studies, 40 samples) concluded that age was modestly but positively related to individual performance as measured by objective measures, but not for subjective ratings. McEvoy and Cascio (1989; 65 studies, 96 samples) found that age and performance are unrelated regardless of performance measures. Sturman (2003; 74 and 115 studies) concluded that there does not exist an inverted U-shaped relationship between time variables such as job experience, organisational tenure, and employee age and performance for all temporal variances and all job contexts. Ng and Feldman (2008; 380 studies, 438 samples) found a positive relationship between age and task performance as rated both by supervisor, others, and self, but negative for age and performance in training programmes (supervisor or objective ratings). The relationship was strongest for the age-groups 31–35 years, but still positive for the remaining age groups.

Based on the above, one may conclude that, *in general*, there is no reason to believe that performance declines with age. However, the actual age relationship depends on type of work. Moreover, the researchers have hitherto mainly studied age groups up to 65 years of age, hence, we cannot yet conclude strongly about older age groups.

Older Workers and Innovations in Organisations

More innovations are conceived of as a prerequisite for efficient coping with the transition to a knowledge-based economy (NOU, 2016) as well as keeping up with the competition from producers in low-wage countries (Frosch, 2011). This chapter regards innovations as a *process* starting with *idea generation* or an idea suggested by one or several organisational members, and the psycho-

logical processes behind it are often defined as *creativity*. In organisational contexts, creativity or idea generation is individuals' development of valuable and useful ideas (Woodman et al., 1993, p. 293). While creativity denotes development of ideas, innovations is about the discovery, recognition, and implementations of more or less developed ideas. In organisations, innovation needs creativity as a starting point and often throughout the implementation processes, while creativity does not need innovation or does not always lead to innovation.

A suggested idea or draft needs to be communicated and picked up in the organisation and developed into an *invention*, which is a tangible item or a conceptualisation of the initial idea, clear enough to be discovered, recognised, and applauded or rejected. This process may be referred to as support for idea generation. If sufficient support is provided, the invention may materialise as an *innovation*, which is a conscious and purposeful introduction and application of ideas, processes, or procedures meant to benefit a job, a team, or an organisation, and which are new in this context (Amabile et al., 2005; Amabile & Pratt, 2016; Blomberg et al., 2017; West & Farr, 1990).

For a long time, it has been assumed that creativity and inventions are provided by adults between the ages of 30 and 40 years (Beard, 1881; Dennis, 1956; 1958; Lehman, 1943; 1960). According to IPSOS's (2020) annual study over the years from 2003 to 2022, between 48 and 57 per cent of the Norwegian workforce had experienced 'very often', 'often', or 'occasionally' that younger co-workers were preferred when new technology and new working methods were introduced. Only 26 per cent had never experienced this. Similar questions posed to Norwegian leaders revealed that, in this period, between 55 and 65 per cent reported similar age-related treatment of the workforce (IPSOS, 2021). Apart from being a grave act of age discrimination, these results indicate that leaders have no trust in their older workers when change and innovations take place, or do older workers back off to avoid learning new ways of working and the extra efforts of applying new methods? As a parallel, Frøyland and Terjesen (2020) reported that Norwegian leaders believe that older workers are lacking flexibility and resisting innovation and change.

One can hardly avoid noticing the resemblance between these results and the myths and stereotypes claiming that one cannot teach new tricks to old dogs and that ageing destroys one's innovative abilities. Such leaders seem to be biased towards the supposed advantages of younger workers and unaware that such practice leans on the prevailing age stereotypes and lay theories that lead to age discrimination (Marcus & Fritzsche, 2016; Rietzschel et al., 2016). The immediate consequences for older workers set aside when change and new equipment and methods are introduced are lost learning options and gradual erosion of their employability (Nilsson & Nilsson, 2021). Such events may act as stereotype threats and contribute to negative self-stereotyping. Finally,

it may reduce the innovative capacities of the organisation as a large part of the workforce is isolated from renewal of the technology and work processes.

Among the individual factors, insight into the phenomenon to be innovated is probably a prerequisite for the creative processes leading to and supporting innovations. Hence, one might expect that adding years of work experience to one's career might benefit innovative processes, thus being an argument for the value of ageing workers. This line of reasoning has received some support (Ng & Feldman, 2013b). This is in line with theories of adult development focusing on a possible increase in one type of cognitive abilities often named as crystallised intelligence. This is an essential assumption of human capital theory and of resource-based views on the human being.

Research on the relationship between age and older workers' contributions to innovations in organisations produces complex outcomes that so far have tended to be inconclusive. For instance, based on a longitudinal study of 222 employees in seven organisations, Amabile et al., 2005 found that age was positively related to self-assessed creative thinking but unrelated to peer-assessment of creative thinking. Biennewies et al. (2008) showed that age was positively related to expert-assessed creativity among nurses with high levels of autonomy, but negatively for nurses with low levels of autonomy. In a longitudinal study (12 months, N = 196, aged 22–66 years) Ng and Feldman (2013a) showed that among proactive employees, age was positively related to innovative behaviour when the employees were undermined (made less confident, powerful, or likely to succeed) by their leaders.

Further, age was not related to self-assessed creativity in a study of employees in an international consultancy company in Germany, Austria, and Switzerland (Fischer et al., 2019), and the number of creative proposals among nurses (Verworn, 2009); however, in this latter study, the quality of the proposals increased by age. Age was unrelated to leader-assessed creativity in a large state-owned enterprise Hunan, China, (N = 423; Liu et al., 2016). Choi (2007) found that age was positively related to creativity in teams and argued that the experience of the older workers, combined with their knowledge of the organisation, skills, and social standing, produced this outcome. Park and Kim (2015) showed that age was positively related to innovation except when the age diversity was large, but that age and radical innovations showed an inverted U-shaped relationship. Ries et al. (2013) argued that age diversity, age stereotypes and age-unfriendly climate predicted age salience that may lead to conflicts which reduce innovative behaviour. However, Hammermann et al. (2019) found that '... companies with – on average – older workforces are less innovative, companies with more diverse workforces are more innovative' and 'companies need to exceed a minimal threshold of age diversity to realise innovation potentials' (p. 24). Further, experience from several organisations was

more advantageous for creativity processes compared to company-specific knowledge gained during employment within one company.

Several individual and contextual factors interact and impact on innovative processes in organisations, thus calling for an interactional perspective (Bandura, 1989; Lewin, 1939; Rietzschel et al., 2016) and observations of processes on individual, social, and organisational levels. Innovations in organisations are team-based processes (Amabile et al., 2005; Amabile & Pratt, 2016; Blomberg et al., 2017), and it is a mistake to separate the creativity of individual minds, from the communities and social groups through which they thrive. Consequently, we are back to the issues of providing an organisational climate and leadership securing an absence of age discrimination and consequent stereotypical threats to facilitate older workers' contributions towards organisational innovations.

A few review studies and meta-analyses of age and participation in innovations in organisations have been undertaken. Meta analyses conducted by Ng and Feldman (2008; 2013a) concluded that age was unrelated to innovation. A similar conclusion was drawn in a meta-analysis by Hulsheger et al. (2009). As concluded by Frosch (2011, p. 428) in her literature review on age and innovation: 'Up to now, there has been no evidence that a youth-centred human resource strategy (always) fosters innovation. Albeit scarce, evidence on the effect of worker inflow and outflow on firm-level innovative output by no means supports the idea that rejuvenating by engaging younger workers boosts innovation.'

Workforce innovative behaviour will be shaped and reshaped in an interplay between personal characteristics, own and co-workers' behaviour, leaders' expectations to, inspiration of, as well as discrimination of older workers, and other processes and structures in the working environment. Moreover, innovations in organisations are complex processes where effects travel in all directions between such factors (Rietzschel et al., 2016), as predicted by the theory of interactive determinism (Bandura, 1989). This allows for leaders to spend energy on providing the autonomy needed and a support innovative climate without ageism to involve all age groups in the innovation processes. When doing so, there seem to be no risks and some advantages coming up for leaders who involve all age groups in innovation processes.

WAYS FORWARD: UTILISING THE ACADEMIC DECISION LATITUDE TO DEVELOP FUTURE LEADERS' ADEQUATE UNDERSTANDING AND WILL TO ACT

So far, the discussion in this chapter has documented central aspects related to the ageing of the workforce and its main implications for the in-service

training of leaders, as well as the education of our future students as leaders to come in all kinds of organisations in the society. The topics discussed previously also lend themselves to research on issues related to the ageing and age-heterogeneous workforce. Notably, the focus in this chapter has been on leadership more than human resource management, as core decisions are most often made in the leadership line.

Several books and research articles have been published under the umbrella of 'Age management'. Responsible business school professors may look for a model that may be used as an entry point for teaching leadership issues related to the demographic change and the ageing of the workforce. Two research-based models lend themselves readily to this purpose: the Later Life Working Index and the swAge-model (sustainable working life for all ages).

The Later Life Working Index (LLWI)

The Later Life Working Index is a result of a long-lasting project conducted at the Institute for Management and Organization, Leuphana University of Lüneburg in Germany, by Professor Jürgen Deller and his group. It is a scale to measure the adequacy of the workplace and the organisation for ageing workers, thus it constitutes an operationalisation of important dimensions in the age management concept. The scale is currently available in German, English, Hebrew, Portuguese, Norwegian, and Spanish, and Chinese languages models will be added to the list. It is based on a theoretical model covering nine domains of organisational features: 1) Organisational climate; 2) Leadership; 3) Work design; 4) Health management; 5) Individual development; 6) Knowledge management; 7) Transition to retirement; 8) Continued employment; and 9) Health and retirement coverage. Each of these domains have from two to four sub-domains focusing on different aspects within the mother domain, and they are explained in the publication. As can be observed, the index is multifaceted and interdisciplinary, thus meeting the needs for multiplex approaches to the issues of the ageing workforce (Wilckens et al., 2021). It is developed following commonly accepted procedures within psychological scale development and, so far, validated on German and US workplaces (Finsel et al., 2021). The scale is available for research and the publication is well suited for teaching as the model fits well to the task of mapping most of the issues of the ageing workforce with references to academic sources treating the domains covered. When applied within the perspectives, challenges, and possibilities related to the ageing workforce, it may be a helpful teaching/learning aid for the business students and the leaders at all levels. However, it requires some basic insights into the issues discussed in this chapter to function as a base for active age-friendly leadership.

The swAge-model

The swAge-Model is developed by Professor Kerstin Nilsson at Lund University, Division of Occupational and Environmental Medicine in Sweden. It is based on more than 30 studies of the ageing workforce and the mutual fit between their needs and capacities and those of their workplace. The development of the model is a response to the ongoing demographic changes that, according to Nilsson (2020), point to ‘the need to develop new knowledge concerning work environmental solutions, organizational solutions, cognitive and work tasks solutions, i.e., ergonomic components, that are associated to ongoing healthy work situation at the workplaces’ (p. 2). The model is intended to facilitate the understanding of *how to make working life healthier for all ages*, which will serve well in the later career as well. It may be used to onset processes on individual, organisational, and societal levels. Four domains are represented across these four levels: 1) the health domain; 2) the financial security domain; 3) the social inclusion domain; and 4) the knowledge, creativity, and development domain. Promotion is the main task on the societal level, while development of attitudes and application of actual measures are the main task on the organisational level, and these are operationalised in relevant activity clusters of the four main domains. On the individual level, these broad tasks are broken down to nine concerns. Four of these belongs to the health domain and include: 1) self-rated health and diagnoses; 2) physical work environment, demands, and injuries; 3) psycho-social work environment, stress, decision latitude, violence, and threats; and 4) work hours, work pace, and recovery time. The financial domain includes only one theme: 5) personal economy. The social inclusion domain includes two themes: 6) socialisation, leisure interactions, and partner /family; and 7) organisation, managers’ attitudes, discrimination (age, ethnicity, and gender), social participation, and support. Finally, the culture of knowledge, creativity, and development domain includes two themes: 8) work satisfaction, core in work, and stimulating and self-crediting tasks; and 9) competence, skills, and knowledge developments. Each domain, task, and theme are discussed in some detail. When applied within the perspectives, challenges, and possibilities related to the ageing workforce, it may be a helpful teaching/learning aid for business students and leaders at all levels. However, it requires some basic insights into the issues discussed in this chapter to function as a base for active age-friendly leadership.

FINAL WORDS AND RECOMMENDATIONS

I have pointed to the need for a radical change in the way the ageing workforce is dealt with to increase the organisations’ access to employees while

also contributing to a better balance between gainfully employed citizens and those outside the workforce. These changes will contribute to a more sustainable societal development and thus relate to the UN Sustainability Goals. To achieve such career extensions, the workers must be *employable*, have reasonable *work ability*, be *willing* to work, and *have opportunities* to being gainfully employed in organisations where they are welcomed (Johnsson, 2021; Pak et al., 2019). This requires development of the content, quality, and organising of competence development, the work tasks, and the workplaces in ways that sustain the older workers' well-being and willingness to work. Leaders and owners may contribute positively to all these requirements and are in almost total control of the opportunity to prolong older workers' contributions to working life. Current research unveils that owners and leaders tend to avoid or counteract such changes. As the business schools educate and provides research to support these leaders, a change in their leadership education and research might contribute to a new and evidence-based practice.

It has been argued in this chapter that the current conceptualisations of ageing workers employed in teaching leadership are outdated and not in line with the research-based knowledge in the area. As elsewhere in the societies, ageism seems to prevail in these schools, leading to neglect of the topic or continued distribution of outdated research findings and attitudes. The discussion is increasingly relevant due to ageing of the workforce, increased costs of retirement, and shortage of workers. If leaders and owners were better educated by reference to current research, one would expect them to recruit, develop, and retain older workers and contribute better to a sustainability in workers' careers, in working life, and in the society at large.

The argumentation presented in this chapter is valid within a business logic based on organisational effectiveness and profitability for owners. The arguments could be strengthened when moving away from this instrumental view of the workforce and conceiving of work through, for instance, the perspectives of existential psychology that focuses on phenomena such as meaningfulness, belonging, identity, and the value of work for the individual (Flisbäck & Bengtsson, 2020; Rosso et al., 2010). The knowledge is available for business school professors to apply in their work, and responsible practice would imply efforts to reduce the knowing–doing gap in this field.

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