ISCTE Business School
Department of Human Resources and Organizational Behavior

Leveraging an aging workforce:
Contributions to longer and better working lives

Inês Carneiro e Sousa

Thesis specially presented for the fulfillment of the degree of
Doctor in Management, specialization in Human Resources and Organizational Behavior

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December, 2019

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December, 2019

To my parents, Luís and Rita, my brother, Tomás,
and my husband, André, who are the true north on my compass

ABSTRACT

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The purpose of this thesis is to examine the role of organizations in extending individuals' careers, ensuring that they remain healthy, active, and productive at work. This thesis includes four empirical studies. In the first study (Chapter 2), generational and age differences in work values are explored. The findings demonstrate that the number of age differences in work values surpasses the number of generational differences, suggesting that age might be a more accurate predictor of inter-individual differences than generations. In the second study (Chapter 3), the role of age-diversity practices in reducing turnover intention is investigated. Such practices reveal to be important to workers engagement and commitment, which decreases their intention to leave the organization. Further, the indirect effect via work engagement is especially important for those individuals who assign less importance to work. The third study (Chapter 4) suggests that older workers who perceive the existence of age-diversity practices in their organizations feel more engaged at work and desire to retire later, especially if they experience low work ability. Finally, the fourth study (Chapter 5) investigates the factors that influence individuals' decision about retirement timing, suggesting that positive work experiences are crucial for their desire to retire after the statutory retirement age. In current times of aging and shrinking workforces, and increasing age diversity at work, this thesis contributes to the understanding of how employers and managers can create better workplaces for attracting and retaining workers of all ages.

Keywords: aging at work, age management, age diversity at work, retirement

JEL Classification: D23 Organizational Behavior; O15 Human Resources

RESUMO

RESUMO

O objetivo desta tese é examinar o papel das organizações no prolongamento das carreiras dos indivíduos, assegurando que estes se manterão saudáveis, ativos e produtivos no trabalho. Esta tese inclui quatro estudos empíricos. No primeiro estudo (Capítulo 2), diferenças geracionais e etárias nos valores do trabalho são exploradas. Os resultados demonstram que o número de diferenças etárias nos valores do trabalho excede o número de diferenças geracionais, sugerindo que a idade pode ser um preditor de diferenças interindividuais mais preciso do que as gerações. No segundo estudo (Capítulo 3), o papel das práticas de diversidade etária na redução da intenção de saída é investigado. Estas práticas revelam-se importantes para o *engagement* e compromisso dos trabalhadores, o que diminui a sua intenção de sair da organização. Além disso, o efeito indireto via *engagement* é especialmente importante para os indivíduos que atribuem menor importância ao trabalho. O terceiro estudo (Capítulo 4) sugere que os trabalhadores mais velhos que percebem a existência de práticas de diversidade etária nas suas organizações sentem-se mais envolvidos no trabalho e desejam reformar-se mais tarde, especialmente se experienciarem fraca capacidade para o trabalho. Finalmente, o quarto estudo (Capítulo 5) investiga os fatores que influenciam a decisão dos indivíduos sobre o momento da reforma, sugerido que experiências positivas no trabalho são cruciais para o seu desejo de se reformarem após a idade legal da reforma. Nesta época de uma força de trabalho envelhecida e crescente diversidade etária no trabalho, esta tese contribui para compreender como é que empregadores e gestores podem criar melhores locais de trabalho para atrair e reter trabalhadores de todas as idades.

Palavras-chave: envelhecimento no trabalho, gestão da idade, diversidade etária no trabalho, reforma

ENTITIES FINANCING THIS RESEARCH PROJECT

FCT Fundação para a Ciência e a Tecnologia

This research was supported by a Research Grant awarded to Inês Carneiro e Sousa [Ref. SFRH/BD/115007/2016] from the Portuguese Foundation for Science and Technology (FCT).

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This research was also supported by the Business Research Unit-IUL (BRU-IUL) Strategic Project [Ref. UID/GES/00315/2013] financed by the Portuguese Foundation for Science and Technology (FCT).

ACKNOWLEDGEMENTS

William Arthur Ward said that “*feeling gratitude and not expressing it is like wrapping a present and not giving it*”. I am grateful for this adventure and for the support of those who were part of it. Estou grata por esta aventura e pelo apoio de todos os que dela fizeram parte.

Às minhas orientadoras, que admiro verdadeiramente enquanto pessoas e profissionais. À Professora Sara, pela sua genialidade e bom humor, por orientar o meu trabalho e a minha carreira, muito obrigada. À Professora Helena, pela sua disponibilidade e conhecimento infindáveis, por ter sempre mais para me ensinar, muito obrigada.

Aos meus pais, Rita e Luís, e ao meu irmão, Tomás, por me terem trazido até aqui, obrigada. Jamais haverá palavras suficientes para agradecer o vosso carinho e a vossa compreensão, as mensagens de apoio e coragem e, sobretudo, os valores de perseverança e espírito de sacrifício que me transmitiram. Serão sempre um exemplo de vida para mim!

Ao André, pelo seu infinito amor e inabalável confiança em mim. Obrigada por transformares os meus momentos de desalento na força motora que me empurrou até à meta. Obrigada por tornares a nossa vida mais simples e mais feliz.

À minha família, que cresceu durante este percurso, obrigada pelo vosso interesse no meu trabalho, mesmo quando não era fácil compreendê-lo.

Aos meus amigos de sempre que por vezes acreditaram mais em mim do que eu própria, obrigada por tornarem este percurso mais fácil. Obrigada por me terem oferecido a vossa ajuda para tudo!

À Professora Ana Passos e à Catarina Santos, um enorme obrigada por me terem acolhido na sua equipa e por me terem iniciado na verdadeira aventura que é a investigação.

Aos meus amigos do ISCTE, Catarina, Rita, Rúben e Teresa, que tornaram este processo de aprendizagem ainda mais divertido, obrigada. Obrigada pelas longas reflexões, pelas sugestões, pelas gargalhadas. Obrigada pela vossa amizade!

Aos Professores do Departamento de Recursos Humanos e Comportamento Organizacional do ISCTE-IUL, que contribuíram para este trabalho com as suas ideias, e que me deram a oportunidade de desenvolver as minhas competências, estou muito agradecida. Obrigada por se lembrarem de mim.

À Fundação para a Ciência e a Tecnologia, por ter financiado dois anos deste projeto de doutoramento, e à BRU-IUL, pelo apoio em fases crucias deste percurso, estou muito grata.

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CHAPTER 1

INTRODUCTION

INTRODUCTION

Human resource management (HRM) has achieved substantial importance in the last decades. Theory, research, and practice on HRM has advanced considerably over the past century, providing a deeper understanding of human resources (HR) as a source of competitive advantage for organizations. Since the early 1990s, research has focused mainly on the role of HRM in improving performance, showing that HR policies and practices intended to enhance workers' knowledge, skills, and abilities are associated with better performance (Becker and Gerhart, 1996;, Liu, Hall, and Ketchen, 2006; Huselid, 1995; Jiang, Lepak, Hu, and Baer, 2012; Saridakis, Lai, and Cooper, 2017). A secondary consideration of HRM theory and research reflects the worker-oriented perspective, which argues it is important to examine the associations between HR practices and employee-related outcomes (Boselie, Dietz, and Boon, 2005; Guest, 2002; Guest, 2017; Veld and Alfes, 2017). This perspective draws attention to the need to give priority to workers' well-being, as this is an important outcome in its own right (Guest, 2017).

Earlier research reports positive associations between HRM and workers well-being, demonstrating, for example, benefits for workers' mental health (i.e., lower levels of depression) (Mackie, Holahan, and Gottlieb, 2001), job satisfaction (Heffernan and Dundon, 2016), and satisfaction with life (Chambel and Farina, 2015). However, some studies found negative effects of HRM on workers well-being' such as burnout (Kroon, Van de Voorde, and Van Veldhoven, 2009; Zhang, Zhu, Dowling, and Bartram, 2013). These mixed findings suggest that there are different types of HR practices due to the variation in organizational strategies, goals, motivations, designs, and implementations. Some practices are profit-oriented and intended to boost performance, and therefore more likely to result in job dissatisfaction and emotional exhaustion (Ramsay, Scholarios, and Harley, 2000; Zhang *et al.*, 2013). Other practices are aimed at eliciting positive employee outcomes (e.g., high commitment, job satisfaction) which will lead to better organizational performance (Harter, Schmidt, and Hayes, 2002; Latorre, Guest, Ramos, and Gracia, 2016; Meyer, Stanley, Herscovitch, and Topolnytsky, 2002). This suggest that organizations and workers can both benefit from HRM, the so-called mutual gains perspective (Guest, 1997; Peccei, Van De Voorde, and Van Veldhoven, 2013; Van De Voorde, Paauwe, and Van Veldhoven, 2012).

This more balanced approach emerged recently, with researchers examining the positive effects of HRM on both employee well-being and performance (Edgar, Geare, Halhjem, Reese, and Thoresen, 2015; Kowalski and Loretto, 2017; Van De Voorde *et al.*, 2012). For example, a recent study from Huettermann and Bruch (2019) shows that the relationship between HR practices and organizational performance is mediated by workers' positive stress mindset and collective engagement.

From a theoretical and practitioner viewpoint, it is essential to understand how to balance the managerial (organizational performance) and the employee perspective (workers' well-being) (Paauwe, 2009) to sustain a healthy and productive workforce. In response to this challenge, a new paradigm emerged in HRM in the last decade: sustainability (Cohen, Taylor, and Muller-Camen, 2012; Ehnert and Harry, 2012; Kramar, 2014; Macke and Genari, 2018). Sustainable HRM can be defined as the set of HR policies, strategies, and practices that contribute to the achievement of organizational goals while simultaneously ensuring the long-term health and well-being of internal and external stakeholders (Cohen *et al.*, 2012; Ehnert, Parsa, Roper, Wagner, and Muller-Camen, 2016; Järlström, Saru, and Vanhala, 2018). Moreover, a sustainability strategy creates the abilities, motivation, and opportunities to achieve financial, social, and ecological goals, through the development of practices that reflect transparency, justice and equity (Cohen *et al.*, 2012). For example, the main purpose of training is to increase organizational success and profitability, but this practice is also of utmost importance for workers' development, which includes future career opportunities within and outside the organization (Järlström *et al.*, 2018). If all workers have equal opportunities to develop their skills and knowledge, the organization will increase workers' capacity to achieve a successful performance without compromising their ability to meet any future needs. A sustainability-oriented HRM is, therefore, critical to attract, retain, and develop talents needed for the success and survival of organizations (Jabbour and Santos, 2008; Newman, 2011), especially in an increasingly global and rapidly changing socio-economic environment (e.g., globalization, financial crises, environmental changes, accelerating rate of technological advancement).

Among others, demographic aging has been recognized as a grand challenge for the twenty-first century (George, Howard-Grenville, Joshi, and Tihanyi, 2016). People live longer than before and fertility rates are falling in most countries of the world, resulting in an aging workforce that creates unique and unparalleled challenges and opportunities for businesses and governments (Burke and Ng, 2006; Chand and Tung, 2014).

To adapt to a changing world and to address these challenges, organizations should implement an age-management strategy that acknowledges and meets the diversity of goals, needs, and preferences of workers of different ages. In an age-management strategy, HR policies and practices create a workplace in which all workers can develop their skills and reach their full potential, while maintaining their health, motivation, and capacities as they age (Naegele and Walker, 2006; Walker, 1999). Hence, age-management demands a sustainability-oriented approach in HRM, as the organization's investment in human resources throughout workers' life spans will ensure that they will be available, motivated, and productive at the end of their careers.

Given the influence of HRM in organizational withdrawal behaviors, researchers and practitioners are interested in understanding how to manage an age-diverse workforce, from the beginning of the employment cycle (recruitment) to the end (retirement). Hence, the main purpose of this thesis is to understand how organizations can leverage an aging workforce, especially how to attract and retain high-quality human resources while ensuring more sustainable careers for all workers. This research focuses specifically on the work-related aspects (i.e., work values and organizational practices) that influence workers' intentions to remain in their organization, taking into consideration age-related differences in needs and preferences. Furthermore, this research focuses on the late career phases to examine the influence of organizational practices and work experiences in retirement preferences. In sum, this thesis addresses how individuals of different ages perceive their work environment and the influence of these perceptions on their work-related attitudes.

Thus, the contributions are threefold. First, this work provides important contributions to the long-lasting discussion about generational and age differences at work. Despite the empirical evidence of generational differences at work being unclear and mixed, managers and employers continue to segment their workforces into generations, and to offer different HR practices to these different groups (Costanza and Finkelstein, 2017; Parry and Urwin, 2011). The findings of this work suggest that age could be a more precise descriptor of inter-individual differences at work than generations, which conveys the message that individual values, characteristics, or preferences could change over time. In addition, this thesis also shows that there are more similarities in work values than differences among workers of different ages. This suggests that organizations should be cautious in designing and implementing practices targeting specific age groups (e.g., younger workers, older workers). Although a cross-sectional study does not allow the complete isolation of generational and age effects, it offers important inputs to better understand the similarities and differences between individuals in terms of work values.

Second, the results of this thesis contribute to the HRM literature by highlighting the importance of adjusting organizational practices to the changing needs and preferences of workers of all ages. The increasing diversity of workplaces demands a contingency approach to HRM (Delery and Doty, 1996), in which HR policies and practices should consider the diverse work-related preferences of the workers in the organization.

Earlier research has shown that the aging process is associated with changes in the attitudes that people hold in their jobs, and the way they behave at work (e.g., Inceoglu, Segers, and Bartram, 2012; Kooij, De Lange, Jansen, Kanfer, and Dikkers, 2011). A great amount of research has focused on how to motivate older individuals to remain employed for longer periods, even beyond what they had planned, but less attention has been paid to the younger and middle-aged workers' retention. In this work, the construct of age-diversity practices, novel in the literature, is presented as an important proactive strategy for the engagement and commitment of workers of all ages. On the one hand, these practices are flexible and age-sensitive, which allows organizations to provide individuals with the resources needed to match the changes that take place while they age. On the other hand, these practices can help organizations to tackle the age barriers that both younger and older workers may encounter in the workplace. By being available to all workers, instead of targeting a specific age group (e.g., older workers), age-diversity practices can demystify age-related stereotypes, as well as promote a sense of fairness in the organization.

Third, this thesis also contributes to the HRM and retirement literature by demonstrating the existence of different retirement transition profiles. Retirement has been identified in earlier literature as a multidimensional and dynamic process, in which some factors have different meanings for different people (Feldman and Beehr, 2011; Wang and Shi, 2014). The complexity of this transition process makes it difficult to clearly identify the work motives that encourage individuals to retire later, since there are individual circumstances that influence the retirement timing. This thesis demonstrates that by generating positive work experiences, a workplace with a positive relationship among workers, and a sense of purpose and self-realization at work, organizations can encourage older workers to postpone retirement. Hence, while there are individual factors that cannot be influenced by organizations, there are several work-related aspects that organizations can change to motivate older individuals to stay active.

This thesis also provides important contributions to the work of practitioners, legislators, and other important actors in the discussion and design of public policies. Preparing for the economic and social transformations associated with demographic aging is essential to achieve a sustainable development across the globe. Hence, the findings herein also contribute to the achievement of the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 (United Nations, 2015). The SDGs comprise 17 goals to be achieved by 2030 that can serve as a comprehensive action plan for guiding governments, businesses, and civil society actions. This thesis highlights the relevance of organizational policies and practices to "*ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment*" (United Nations, 2015: 5). Specifically, this work contributes to goal number 3 "Good health and well-being" (Ensure healthy lives and promote well-being for all, at all ages), number 8 "Decent work and economic growth" (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all), and number 10 "Reduced inequalities" (Reduce inequality within and among countries).

This work is organized as follows: we first explore the antecedents, characteristics, and consequences of an aging population. Second, we delve into the challenges and opportunities of aging workforces for organizations. We then move on to explore the meaning of longer working careers for individuals and organizations, in which we examine the role of age in the definition and implementation of HRM practices and policies so we can better understand what the organizational role is in creating safe and healthy workplaces for individuals of all ages. Next, we present four empirical studies that contribute to a better comprehension of the influence of an age-diversity management strategy in several work-related outcomes. Finally, we examine the theoretical and practical implications of these studies, identify their limitations, and propose directions for future research.

THE AGING POPULATION

In the second half of the 20th century, the world witnessed unparalleled demographic changes. Falling mortality and fertility rates, and improvements in life expectancies at birth contributed to an "agequake", a term used to portray the aging of populations (Tempest, Barnatt, and Coupland, 2002). The decline in mortality and the growing life expectancy are due to reductions in infectious, chronic and degenerative diseases, and increases in nutrition (Lee, 2003). Decreasing fertility rates can be explained by the widespread availability of contraceptive methods, the rising costs of bearing and rearing children, the growing participation of women in the workforce, and a shift in cultural norms, especially in religious values, from large to small families (Chand and Tung, 2014; Lee, 2003).

The pace of world population ageing is accelerating since the share of older people has increased substantially in recent years. According to the United Nations (2017), the global population aged 60 years or over totaled 961 million people in 2017, and projections estimate the number of older people to reach nearly 2.1 billion by 2050, surpassing the number of adolescents and youth (10-24 years old), which will reach 2.0 billion. Estimates also indicate that the number of people aged 80 years or over will increase from 137 million in 2017 to 425 million in 2050 (United Nations, 2017). In 2017, there were 15 people aged 65 years or over per 100 persons aged 20 to 64 years old (i.e., the world's old-age dependency ratio), a number that is projected to continue rising through 2050, when estimates suggest that there will be 28 persons aged 65 years or above per 100 persons in the traditional working ages (20-64 years) (United Nations, 2017).

While population aging is a global phenomenon, Europe has been, in the last decades, one of the most aged continents. By 2050, people aged 60 years or over are projected to account for 34.2% of the population of Europe, an increase of 10.3 percentage points compared to 2015 (United Nations, 2017). Thus, by the middle of the 21st century, around one in every three people in Europe will be aged 60 years or over. The old-age dependency ratio (people aged 65 years or over in relation to those aged 15 to 64 years) is projected to increase from 29.6% in 2016 to 51.2% in 2070, in the EU. Furthermore, the older population is itself aging, meaning that more older people will survive to even more advanced ages. The very old-age dependency ratio (people aged 80 years or over relative to those aged 15-64 years) was 8.3% in 2016, and it is expected to increase 14 percentage points to 22.3% in 2070 (European Commission, 2017). The pronounced growth of these ratios is due to the continued increase in longevity. In 2016, life expectancy at birth was 78.3 years for men and 83.7 years for women in the European Union (EU), and it is expected to increase to 86.1 years and 90.3 years, respectively, in 2070 (European Commission, 2017).

In a global demographic scenario dominated by aging, Portugal is no exception. Following the trend of the global aging, the Portuguese population has undergone a gradual aging during the last four decades. The percentage of older people (65 years or over) increased 9 percentage points since the late 1980s: it was 12.8 % of the total population in 1988, 15.8% in 1998, 18.0% in 2008, and 21.8% in 2018 (PORDATA, 2019a). In the next decades, projections point to rapid demographic aging, with the proportion of older people reaching 37.2% in 2080 (Statistics Portugal, 2019). As a result of the decrease in the working-age population and the increase in the elderly population, the old-age dependency ratio will likely grow sharply until 2050, stabilizing thereafter (Statistics Portugal, 2017). The old-age dependency ratio was 33.9% in 2018, and projections highlight that in 2070 Portugal will be the country with the highest old-age dependency ratio in the EU (67.2%) (European Commission, 2017; Statistics Portugal, 2019). Similarly, the very old-age dependency ratio is expected to increase from 9.3% in 2016 to 29.8% in 2070 (European Commission, 2017). Despite a slight slowdown, the demographic aging trend will continue in the coming decades in Portugal as longevity continues to grow. In 2016 a new-born Portuguese male could expect to live for 78.2 years, on average, while a Portuguese woman had a life expectancy of 84.3 years (European Commission, 2017). In 2080, life expectancies at birth are expected to reach 87.4 years for men and 92.1 years for women, in Portugal (Statistics Portugal, 2019).

Demographic changes are transforming both the society and the workforce around the world. One of the most mentioned concerns in literature is the increasing public social expenditure with pensions and the healthcare system (Bongaarts, 2004; Feng and Sousa-Poza, 2018; Nagarajan, Teixeira, and Silva, 2016). The pay-as-you go system, in which pensions for retirees are funded by the contributions of the active workers, has been considered unsustainable, as the number of older individuals continues to rise against the decreasing percentage of the working-age population (i.e., threat to intergenerational reciprocity) (Alonso-García, Boado-Penas and Devolder, 2018; Díaz-Gimenez and Díaz-Saavedra, 2009). Increasing levels of education also affect the public expenditure, as the more educated that workers are, the higher are the payroll taxes they pay, and the greater the pensions they will receive when retired. Hence, the combined effect of lower fertility rates and longer lives is putting the financial sustainability of the pension systems under strain. Reforms have been implemented recently to improve the financial balance of pension systems, such as increasing the statutory retirement age by introducing automatic links between pension benefits and the average life expectancy, increasing the contribution rate of the active population, and decreasing the pension benefits (Organisation for Economic Co-operation and Development [OECD], 2017).

Also, as the population ages, there will be increased demands on the health system (de Meijer, Wouterse, Polder, and Koopmanschap, 2013; Rice and Fineman, 2004). Increased longevity is generally associated with chronic illness and other disabilities, which requires more investment in social and health infrastructures and services (e.g., invest in a geriatric workforce, in assistive devices). For example, since the prevalence of dementia increases with age, the number of dementia patients is expected to triple by 2050, raising the economic costs and social burden with constant care in daily activities (World Health Organization [WHO], 2015). A public-health strategy for an aging population will therefore be required to create sustainable health systems and long-term care models.

Along with the potential economic and societal costs, the aging of the population also has implications for organizations. A growing percentage of older workers and a decreasing number of younger workers, combined with changes in labor force participation (e.g., rising levels of education, late entry of younger generations in the labor market, increasing female labor force participation), can result in labor and skills shortages (Burke and Ng, 2006; Chand and Tung, 2014; DeLong, 2004).

The graying workforce

The unprecedented demographic change that countries around the world are witnessing today is also reflected in the workforce. The shrinking of the workforce (Hedge, Borman, and Lammlein, 2006) is revealed in the decreasing share of the working-age population (15-64 years old) in several regions of the world, such as North America, Australia/New Zealand, and Europe (United Nations, 2019). In the EU, people aged 15 to 64 years old will become a substantially smaller share of the total population, declining from 65% in 2016 to 56% in 2070 (European Commission, 2017). The employment rate of older workers (55-64 years old) has increased from 50.4% in 2013 to 55.3% in 2016, reaching 67.9% in 2070, whereas the employment rate of younger workers (20-24 years old) suffered only a slight increase from 48.0% in 2013 to 51.0% in 2016, and it is projected to reach 54.7% in 2070 (European Commission, 2014, 2017). Finally, the working age population renewal index in the EU was below 100 in 2013, with 97 people aged 20 to 29 years per 100 people aged 55-64 years old (Statistics Portugal, 2015).

For the Portuguese context, the working-age population will decrease from 65.0% in 2016 to 53.0% in 2070 (European Commission, 2017). The share of younger workers will increase from 42.9% in 2016 to 48.7% in 2070, whereas the percentage of older workers will grow sharply in the same period, from 52.0% (2016) to 64.3% (2070) (European Commission, 2017). According to Statistics Portugal (2015), in 2014 Portugal was the EU-28 country with the third-lowest working age population renewal ratio (84 people aged 20-29 years per 100 people aged 55-64 years old). In fact, in Portugal since 2010 the number of older workers potentially leaving the labor market (55-64 years) is not compensated by the number of younger people potentially entering the labor market (20-29 years) (Statistics Portugal, 2015, 2019). In 2018, for every 100 people aged 55-64, there were 78 people aged 20-29, the lowest value ever (Statistics Portugal, 2019).

Hence, low birth rates coupled with a growing labor force participation of older workers in the workforce have resulted in a shrinking, aging, and age-diverse workforce. Due to the low fertility rates, the number of younger workers entering the labor force is not sufficient to replace those leaving the workforce. Also, the transition from education to work tends to occur later and last longer, especially when labor market conditions are unfavorable (e.g., high unemployment rates, precarious employment) (OECD, 2019). At the same time, the aging workforce poses the threat to organizations of losing important knowledge and skills when older workers retire, especially if they decide to retire early, since the competence levels of younger and older workers are not equivalent (Burke and Ng, 2006; DeLong, 2004). These phenomena affect the structure and size of workforces dramatically.

Concerns about the impact of an aging and insufficiently large workforce on the sustainability of pension systems and organizations have led institutions to reform their retirement policies. Several governments around the world have concentrated on reversing the early exit culture and fostering longer working lives by reducing incentives for early retirement and rewarding longer careers (OECD, 2017; Avendano and Cylus, 2019). This mindset change relies on the assumption that a longer life expectancy means longer working lives, that is, as we are living longer, we are able to work longer (Avendano and Cylus, 2019). However, the abovementioned measures to increase labor force participation at older ages have created pressures on workers to change their views on work and careers, raising some controversies (van Dalen, Henkens, and Oude Mulders, 2019). Many older workers who enjoy healthy and active lives are enthusiastic about their new opportunities at work, while others are frustrated and concerned about their own ability to continue working and about the responsibilities of caring for family members (Myck, 2015; van Solinge and Henkens, 2017).

Similarly, organizations have different perspectives about the retention of older workers. Several employers reveal concerns about workers' physical and mental ability to continue working (van Dalen et al., 2019), and others are focused on reducing labor costs through the displacement of older workers who are more expensive for businesses due to seniority-based pay policies (i.e., rewards are mainly related to the length of the service in the organization) (Koeber and Wright, 2001). Other organizations, by contrast, want to retain older workers because of labor force shortages and as managers recognize that older people's expertise is important for maintaining the quality of organizational outputs and it is difficult to replace (Karpinska, Henkens, and Schippers, 2013).

These issues have broad implications for research and practice. On the one hand, the retention of talented individuals implies managing expectations about the career and the organization, focusing on issues central to the fields of HRM and organizational behavior such as motivation, engagement, and commitment. It is very important to keep older workers healthy and active, and encourage them to work longer, as well as to take a proactive approach in retaining younger and middle-aged workers who will be future older workers. Thus, HR initiatives such as opportunities for professional development and growth, advancement prospects, and health promotion can impact workers' continuance in a specific organization, including past the statutory retirement age.

On the other hand, with the looming shortage of workers, there will be increased competition for attracting and recruiting workers of different ages. The different characteristics, values, and expectations of the workers entering the organization need to be taken into account so that all workers have the opportunity to reach their potential.

In light of this, researchers and practitioners must rethink how HR policies and practices can be designed to create healthy and safe workplaces for workers of all ages. More sustainable careers will make an age-diverse workforce a competitive advantage of the organization.

WORKING LONGER: A CHALLENGE FOR INDIVIDUALS AND ORGANIZATIONS

As longevity has increased, research on aging has become extremely important to understand what changes occur with individuals throughout their life and what factors influence those changes, making aging more successful for some than for others. The concept of aging refers to the set of biological (i.e., body's functions and structures), psychological (i.e., cognition, emotions, and behaviors), and social (i.e., social structures such as family, culture, etc.) changes that occur over time within the individual (Riley, 1994; Whitbourne and Whitbourne, 2011). Viewed from the life-span perspective, aging is a complex phenomenon that begins at birth, is characterized by rapid age-related increases in abilities in childhood and adolescence, and relatively slow changes in adulthood and old age (Baltes, Staudinger, and Lindenberger, 1999; Cavanaugh, 1997). This multidimensional process of growth involves both gains and losses throughout life.

Increased crystalized intelligence (e.g., accumulated knowledge, skills, and wisdom), improved ability to manage and cope with affective events (emotion regulation), and increased self-discipline are among the gains found in the literature (Roberts, Walton, and Viechtbauer, 2006; Scheibe and Zacher, 2013; Truxillo, Cadiz, and Hammer, 2015). For the work context, the tendency for older individuals to concentrate more on the positive aspects of the environment than on the negative is especially important, as this contributes to less interpersonal conflict. Losses can include, for example, declines in fluid intelligence (e.g., slower processing speed, less working memory), decreases in muscular strength, and reduced ability to reach homeostasis (i.e., higher susceptibility to extreme physical conditions such as heat or cold) (Rizzuto, Cherry, and LeDoux, 2012; Truxillo *et al*., 2015). In the work context, a slower rate of cognitive processing can mean, for instance, that older individuals will take more time to check the accuracy of information than younger individuals (Schaie and Willis, 1993).

Until the 1950s, aging was predominantly associated with losses, declines, dependency, and costs, but with the paradigm change in developmental psychology, researchers began to acknowledge that older individuals can maintain high levels of functioning as long as they have the resources to match environmental demands (Baltes, Reese, and Lipsitt, 1980; Zacher, 2015). The term successful aging then began to be used to designate how individuals use their personal and contextual resources to adjust and perform in a specific domain (e.g., work) (Cheung and Wu, 2013; Zacher, 2015). According to life-span psychologists, people can have an active role in their development by applying strategies that help them to adapt to losses and achieve a successful aging (Zacher, 2015). Baltes and Baltes (1990) proposed the Selection, Optimization, and Compensation (SOC) model to explain how individuals can maintain high levels of functioning and well-being using different strategies. Despite the inevitable age-related losses, selecting goals suitable for one’s ability, optimizing the skills to pursue those goals, and compensating for losses that may hinder goal achievement can help individuals to achieve successful aging (Baltes and Baltes, 1990; Freund and Baltes, 2002).

Facing the need to extend their working careers, it is crucial that individuals perceive that they are aging well and can cope with age-related changes. A recent review and meta-analysis from Moghimi, Zacher, Scheibe, and Yperen (2017) has shown that an active, healthy, and productive aging in the work domain requires the use of SOC strategies. In their work, Moghimi and colleagues (2017) found that there are internal (e.g., workers’ self-efficacy) and external (e.g., job autonomy) resources that prompt the use of SOC strategies in the work context, contributing to positive work outcomes such as increased performance, job satisfaction, and engagement. An older worker may consider that, for instance, a particular promotion vacancy is not attainable, but he or she could select and prioritize other meaningful work goals (e.g., mastering a specific skill). Also, increasing job knowledge and experience can partially compensate for decreases in reasoning speed, thereby promoting well-being and life satisfaction, which are subjective indicators of successful aging (Zacher, 2015).

Hence, age-related changes in physical, sensory, and cognitive abilities, and increasing vulnerability to disease arise as adaptive challenges for older workers (Hansson, DeKoekkoek, Neece, and Patterson, 1997). The use of SOC strategies can help workers, especially the older ones, to maintain their functioning, but it is necessary that the work context also facilitates it.

Thus, organizations have partial responsibility in promoting workers' health and well-being, ensuring better working conditions for all, and improving the long-term employability of younger workers as well as older ones (Oakman and Wells, 2013; Schalk *et al*., 2010). Organizational support could provide workers with the resources to meet work demands, helping them to adjust and adapt better (Cheung and Wu, 2013; Hansson *et al*., 1997).

There are situations, however, in which age-related declines affect the performance of individuals if the job depends greatly on specific abilities. For example, declines in visual acuity and hearing loss can hardly be offset by SOC strategies in jobs such as pilot or driver (Hedge *et al*., 2006). In such cases, organizations should invest in redesigning the jobs to accommodate these age-related losses (e.g., change job content, structure), adjusting the work to the individual whenever possible (Truxillo, Cadiz, Rineer, Zaniboni, and Fraccaroli, 2012). Also, a career change may be required, either inside or outside the current organization. To plan this change in detail, the organization should evaluate and monitor workers' abilities, skills, and knowledge, and provide them with continuous development and updating of skills and expertise, contributing to their employability (van Dam, van Vuuren, and Kemps, 2017). By acknowledging the different training needs of an age-diverse workforce, in the present and in the future, employers and managers can ensure that workers stay competent, healthy, and motivated, whatever their age.

Despite the optimistic view of the life span perspective, aging has long been (and it still is) associated with losses and declines. The enduring socio-cultural norms that associate older individuals with an image of a non-contributing burden to society also spreads to the organizational context (Nelson, 2005). Several organizations hold stereotypes that older workers may underperform compared to younger workers, giving the idea that they are less valuable to organizational success (Peeters and van Emmerik, 2008; Posthuma and Campion, 2009). However, several meta-analyses have examined the age-performance relationship and found no empirical evidence to support the belief that older workers are poorer performers (e.g., Ng and Feldman, 2008; Sturman, 2003). In addition, other negative stereotypes about older workers such as being less motivated, less able to learn, or more resistant to change were not supported by previous studies (Ng and Feldman, 2012; Posthuma and Campion, 2009). Researchers have noticed that age stereotypes are likely to result in unequal treatment of younger and older workers in important management decisions, such as development and promotion opportunities, or reward allocation (Bal, Reiss, Rudolph, and Baltes, 2011; Perry and Finkelstein, 1999).

Age discrimination conflicts with humanistic values of equal opportunities, represents non-compliance with the legislation that protects older individuals from employment discrimination, and can also have an adverse impact on business itself (Fisher, Truxillo, Finkelstein, and Wallace, 2017; James, McKechnie, Swanberg, and Besen, 2013). However, in light of the findings disproving the lower productivity myth and the acknowledgment that older workers can add much value to the organization, a new management perspective began to emerge. The competitiveness and efficiency of organizations will depend on how employers can manage the capabilities, limitations, goals, preferences, and needs of different individuals while they age.

Several researchers proposed that generations may explain why individuals are different from each other in numerous work-related aspects and outcomes (e.g., Benson and Brown, 2011; Costanza, Badger, Fraser, Severt, and Gade, 2012; Twenge, 2010). A generation is a social group in which individuals share similar birth years and significant life events at formative developmental stages (Kupperschmidt, 2000; Mannheim, 1952). If a cohort of people share remarkable experiences, and are exposed to the same cultural values and norms in their formative years, it is expected that individuals in the same generation exhibit similar values and attitudes toward work, and that these may differ from those of other generations. This line of thinking has stimulated researchers to recommend, and practitioners to design and implement HR policies and practices according to presumed generational differences, in order to effectively manage their workforce (Beutell and Wittig-Berman, 2008; Gursoy, Maier, and Chi, 2008; Jurkiewicz, 2000; Kultalahti and Viitala, 2015). However, a growing group of scholars disagree on the predictive ability of generational categories due to the lack of empirical evidence (Giancola, 2006; Lyons, Duxbury, and Higgins, 2007; Parry and Urwin, 2017). In this thesis we adopt the vision of this group of academics and we seek to understand the inter-individual differences based on workers' age, admitting that there is variability within each cohort and that people age differently.

In fact, while getting older, there are changes that occur within individuals due to their physical, cognitive, and social development, contributing to more heterogeneity among the older individuals (Light, Grigsby, and Bligh, 1996; Nelson and Dannefer, 1992). For instance, past research has shown that perceptions about justice change over time within and between people (Holtz and Harold, 2009). Also, in their study that lasted 100 days, Schulenberg, Vondracek, and Nesselroade (1988) found that the importance of work values may change over time and across circumstances within individuals. More recently, the findings from Gouveia, Vione, Milfont, and Fischer (2015) revealed that the importance of personal values change over the years. For example, suprapersonal (e.g., cognitive and self-actualization needs) and interactive (e.g., needs for belonging and affiliation) values increase with age in a linear way. These within-person changes are the effect of the aging process and the result of certain events that shape individuals' thoughts, feelings, and actions.

Thus, one of the most noticeable challenges for organizations is the uniqueness of individual trajectories throughout life, which results in age-related differences at work. Through an HR strategy focused on age management, organizations acknowledge these differences in needs, preferences, values, goals, and ways of functioning, and communicate to their workers their intentions of creating better working conditions for all workers (EU-OSHA, Cedefop, Eurofound, and EIGE, 2017; Naegele and Walker, 2006; Vendramin *et al.*, 2012). While on the one hand it is necessary to respect the individuality of workers, on the other hand it is crucial to ensure that the practices implemented by the organization are not discriminatory against any group. It is in this sense that age management emerges as a key tool to facilitate longer and more sustainable careers (Fuertes, Edgell, and McQuaid, 2013; Furunes and Mykletun, 2005).

Age management refers to the set of organizational policies and practices that combat age barriers and ensure that all workers, regardless of their age, can achieve personal and organizational goals (Naegele and Walker, 2006). Age management comprises different dimensions, from recruitment to the transition to retirement, including training or health promotion (Boehm, Schröder, and Kunze, 2013; Naegele and Walker, 2006; Walker, 1999). Recruitment practices aim to attract the best talents of all age ranges and promote age diversity, guaranteeing that potential applicants are not discriminated against because of their age (Naegele and Walker, 2006; Walker and Taylor, 1998). Such practices should focus on the skills, knowledge, and experience of applicants to avoid age bias, and might include age-neutral job advertisements, and a training program for reducing aging stereotypes among the decision makers of the process (Boehm *et al.*, 2013; Rudolph, Toomey, and Baltes, 2017). In a changing world, training and life-long learning is an important dimension of age management and it is valued by workers of all ages (Pinto, Ramos, and Nunes, 2014). Investing in developing the skills of workers of all ages while considering their specific needs will help to improve productivity, but also the employability of workers (Boehm *et al.*, 2013; Walker, 2005)

At the same time, organizational practices can protect and promote workers' health and well-being across the lifespan, using both preventive and corrective measures. This includes optimizing the work processes and designing workplaces that facilitate good performance and work ability, such as reduced workload, ergonomic adjustments, and health education (Boehm *et al.*, 2013; Truxillo *et al.*, 2015). Boehm and colleagues (2013) also highlight the importance of implementing adequate measures to evaluate performance and recognizing workers' accomplishments, ensuring that there is a non-discriminatory treatment of workers of all ages. The authors propose that it is important to prevent and overcome age stereotypes in performance and reward workers for good performance.

Finally, the dimension transition to retirement is focused on practices that support older workers in retirement planning and facilitate flexible forms of transition (Naegele and Walker, 2006). Organizational support in this phase is crucial for the adjustment of individuals to their new role as retiree. Planning for retirement can include seminars about financial preparation, and housing options, and counseling about communication or problem solving in relationships (Adams and Rau, 2011; Boehm *et al*., 2013). As past research has shown, when workers feel in control of their retirement decisions, they will experience more well-being (Calvo, Haverstick, and Sass, 2009; De Vaus, Wells, Kendig, and Quine, 2007). This means that some older individuals prefer gradual retirement as they can progressively leave work by, for example, being employed in part-time and enrolled in voluntary work, or gradually reducing the number of working hours (Boehm *et al*., 2013; De Vaus *et al*., 2007). Other individuals may prefer abrupt retirement, which occurs when the individual goes from full-time employment in one day to retirement in the next.

In sum, an age management strategy can, from the mutual gains perspective, benefit both workers and organizations. This strategy can maintain and improve the ability and motivation of workers to remain active, enhancing their employability and making them feel respected and valued by the organization (Naegele and Walker, 2006; Truxillo *et al*., 2015). By anticipating changes in the age structure, planning and implementing practices to manage workers of different ages, organizations can minimize potential disadvantages of an aging workforce (e.g., labor shortages), while maximizing the potential benefits of diversity, such as greater multiplicity of skills and perspectives at work (Hertel, van der Heijden, de Lange, and Deller, 2013; Walker, 1999).

AIM AND OVERVIEW OF THE THESIS

Population aging has been recognized as a grand challenge for the sustainable development of societies and organizations. Attracting and retaining a talented age-diverse workforce have been the focus of the attention of researchers, consultants and practitioners (Mahon and Millar, 2014; Nagarajan, Wada, Fang, and Sixsmith, 2019; Schalk *et al.*, 2010). One of the most important concepts for the research on aging has been that of generations. However, some researchers have questioned the power of generations to explain inter-individual differences in work-related attitudes and behaviors, suggesting that this perspective neglects the within-person variance over time (Costanza and Finkelstein, 2015; Parry and Urwin, 2017).

Even without using the concept of generations, due to the prevalence of age stereotypes in society and organizations, researchers have concentrated their efforts on comparing younger and older workers in various work attitudes and behaviors (Boumans, De Jong, and Janssen, 2011; Claes and Van de Ven, 2008; Zaniboni, Truxillo, Fraccaroli, McCune, and Bertolino, 2014). This line of research has sought to identify the differences between these two age groups in order to define specific HRM practices that can meet their preferences and needs (e.g., Ebner, Freund, and Baltes, 2006; Innocenti, Profili, and Sammarra, 2013; von Bonsdorff, 2011).

Despite the importance of all these lines of research, from the lifespan development perspective, aging is an individual process related to emotional maturity, physical capacity, social roles, family status, or career stage, and not all people age at the same pace (Kanfer and Ackerman, 2004). Moreover, the same individual does not age at the same pace in the biological, psychological, and sociocultural dimensions. For example, a 20-year-old woman who attends college is psychologically (i.e., intellectual domain) in the same level of her peers, but because of her cardiovascular disease, she could be considered biologically older than her peers (Cartensen, 1997). Although individuals may belong to the younger or older workers' group, their thoughts, attitudes, and behaviors may be different as a result of their unique experiences throughout life. Finegold, Mohrman, and Spreitzer (2002) suggest that differences in job satisfaction among age groups may in fact be overblown. The development and implementation of HR practices that target specific age groups can be perceived by workers as a way of discrimination, making them feel that they belong to a devalued group (Hennekam and Herrbach, 2015). In this sense, rather than comparing age groups, we aim to investigate the role that work plays in building longer and healthier careers, from the time people enter the labor force until the moment they decide to leave it. What can the role of organizations be in creating age-diverse and age-supportive workplaces?

Traditionally, research on aging at work has focused on retaining older workers and exploring the factors contributing to their ability, motivation, and opportunity to continue working (Armstrong-Stassen and Ursel, 2009; Kanfer, Beier, and Ackerman, 2013; Pak, Kooij, de Lange, and Van Veldhoven, 2019). Older workers now face longer careers than they expected at the beginning of their working life, with some individuals retiring at the constantly increasing statutory retirement age and others later than that. Further, older workers are also the most common targets of both intentional and unintentional age discrimination (James *et al.*, 2013).

In the case of older workers, in addition to studying their intention to remain in a specific organization, it is also important to study their ability and motivation to stay in the workforce (i.e., retirement intentions). Thus, one of the purposes of this work is to examine how organizations can, through their practices, protect and promote workers' health, ability, and well-being, accommodate the losses that individuals experience with aging, while leveraging the gains of this process. Moreover, it investigates how organizational practices can meet the different motives and goals that older workers, a very heterogeneous group, have at the end of their career.

To accomplish these objectives, four empirical studies were developed, using different methods to collect data and different statistical methods to analyze them. Table 1.1 outlines the research questions and presents the method of the studies reported in the following chapters of this thesis.

As one advances in this work, the population under study and the topics become narrower. First, the concept of generations, whose origin is in sociology, was applied to investigate the inter-individual differences in work values. Then it advances to examine the relevance of age-diversity practices in the retention of workers of all ages. Next, the impact of such practices in the retirement preferences of older workers is studied. Finally, considering older workers and retirees, the heterogeneity of individual and work experiences and their association with retirement timing is also investigated.

Table 1.1. Research questions and statistical strategies to perform the four empirical studies

Chapters	Research questions	Method
Chapter 2	• Are there more *actual* differences or *perceived* differences in work values between generations? • Is the Portuguese generational classification more suitable to explain differences in work values than the United States (US) classification? • Is age a more appropriate construct to explain differences in work values than generations?	• Questionnaire; • Categorical Regression with optimal scaling (CATREG).
Chapter 3	• Do work engagement and affective commitment mediate the relationship between age-diversity practices and turnover intention? • Does work centrality moderate these mediated relationships?	• Questionnaire; • Moderated parallel mediation using Structural Equation Modeling.
Chapter 4	• Does work engagement mediate the relationship between age-diversity practices and the preference for early or late retirement? • Does work ability moderate this mediated relationship?	• Questionnaire; • Moderated mediation using Structural Equation Modeling.
Chapter 5	• How do individual and work factors interact to influence retirement timing? • Are there retirement transition profiles? • How are these profiles associated with retirement timing?	• Qualitative study with semi-structured interviews; • Content analysis; • Multiple Correspondence Analysis (MCA) and Cluster Analysis.

In Chapter 2, three different phenomena that might explain the mixed results found in the generations literature are examined: perceived generational differences, historical and sociocultural context, and age. In a sample of Portuguese workers, the role of perceived differences in explaining inter-individual differences in work values is analyzed. Then a Portuguese generational classification is proposed that accounts for the specific characteristics of the context and this categorization is examined to see if it can explain more differences than the United States (US) classification. Finally, the role of age as a more accurate predictor of work values than generations is investigated, by proposing that there are more and stronger age-related differences in work values than generational differences. Findings support that perceived generational differences outnumber actual differences in work values, highlighting the role that stereotypes play in the individual attributions about what other generations value at work. Empirical evidence does not support the importance of a Portuguese generational classification, since the number of actual differences for Portuguese and US generations is the same. Moreover, the findings suggest that age is a more accurate predictor of inter-individual differences in work values than generations, despite the small effects that were found. Together, these results draw attention to the influence of stereotypes in the work context and to the role of age as a proxy for the individual development and growth process. For this reason, the concept of generations is not maintained in the following studies.

In Chapter 3, the role of age-diversity practices is investigated in the retention of workers of all ages. The influence of age-diversity practices in turnover intention in a sample of Portuguese workers is analyzed, as well as the mediating roles of work engagement and affective commitment in this relationship. Finally, the moderating effect of work centrality in these mediated relationships is also examined. The results reveal that age-diversity practices can contribute to a more engaged workforce that, in turn, will reduce workers’ intentions to leave the organization. This effect is especially important to those workers who assign less importance to work in their lives. Age-diversity practices can also promote a more emotionally committed workforce that, in turn, will be more willing to stay in the organization. All workers, regardless of the importance that work plays in their life, will be more attached to the organization if they perceive the existence of age-diversity practices in their organization. These results highlight the importance of age-diversity practices for retaining an age-diverse workforce.

In Chapter 4, the results of the previous chapter are extended and the importance of age-diversity practices to keep older workers healthy, active and productive at work is analyzed. The influence of age-diversity practices on retirement timing preference is examined in a sample of older Portuguese workers. It is proposed that age-diversity practices impact positively work engagement, which in turn will relate to a preference for retiring later, and that this mediated relationship is moderated by work ability. The findings show that older workers who perceive the existence of age-diversity practices are more likely to be engaged in work and have greater intentions to stay in the workforce, delaying retirement. Further, this relationship is reinforced for individuals who experience low work ability. This study demonstrates that organizations can retain older workers by supporting them, and valuing their contributions, through the implementation of age-diversity practices.

In Chapter 5, the role of organizations in the retirement transition is deepened, by examining the influence of the work-related factors in retirement timing (early, on-time, and later retirement). Using a sample of older individuals (i.e., workers aged 55 years old or over and retirees), the association between individual and work-related variables is explored in order to define retirement transition profiles. The results reveal three distinct profiles: push factors, push and pull factors, and stay factors. The last profile is associated with a preference for later retirement, showing that high positive experiences at work, such as autonomy or opportunities to learn, can positively affect the older individual’s desire to postpone retirement. The findings of this study show that positive experiences at work, which can be generated by organizations through their practices, are associated with longer working lives.

Finally, in Chapter 6 the theoretical and practical implications of the four studies are discussed. The limitations of the studies are presented, and directions for future research are suggested.

CHAPTER 2

CLEARING THE FOG:
CONTRIBUTIONS TO A BROADER UNDERSTANDING OF GENERATIONAL DIFFERENCES IN THE WORKPLACE[1]

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[1] This chapter has been submitted for publication as:

Sousa, I. C., Ramos, S., Carvalho, H., & Standifer, R. (2019). *Clearing the fog: Contributions to a broader understanding of generational differences in the workplace.* Manuscript submitted for publication.

ABSTRACT

The topic of generations has been receiving a growing interest from scholars and practitioners. However, despite the extensive empirical research on generational diversity, findings are still mixed and unclear. We proposed that these inconsistencies can be explained by three different phenomena: perceived generational differences, cultural context, and age. Drawing from Social Identity Theory, we first hypothesized that perceived generational differences in work values outnumber actual differences. Second, we proposed a Portuguese generational classification, hypothesizing that there were more differences in work values using the Portuguese generations than using the United States (US) generations. Third, we proposed that age is a more appropriate construct to explain differences in work values, formulating two hypotheses: a) the number of age-related differences in work values surpasses the number of generational differences; b) effect sizes are greater for age-related differences in work values than for generational differences. A sample of 705 workers rated the degree to which they personally valued 15 work values, and then indicated value ratings for these items for each of the three generations (Baby Boomers, Generation X, and Generation Y). Categorical regression was used to test our hypotheses, including gender and education as control variables. Hypotheses 1 and 3a received empirical support. Practical implications are discussed.

INTRODUCTION

There is an increasing interest in generations among researchers, consultants and practitioners. In today’s workplace, managers and employers show persistent beliefs that generations are unique and different, which represents a great challenge to organizations and workplace relations. Generational differences are being popularly adopted by organizations as a basis for designing and implementing HR policies and practices (Cogin, 2012; Parry and Urwin, 2017). HRM practitioners and consultants are using generational characteristics to segment the workforce and to define the profile of different groups of workers, encouraging organizations to implement uniform practices for workers of the same generation.

However, despite the great acceptance of generations as a cause of various phenomena and outcomes, it remains a controversial topic in the organizational literature as previous research found mixed and limited evidence with some studies finding differences between generations (e.g., Cennamo and Gardner, 2008; Jurkiewicz, 2000; Twenge, Campbell, Hoffman, and Lance, 2010) and others showing no differences or small differences between generations (e.g., Kowske, Rasch, and Wiley, 2010; Trzesniewski and Donnellan, 2010). Also, several authors have pointed out different problems in the study of generations, which may explain the inconsistencies in the literature: the lack of theory supporting generationally based differences (Costanza and Finkelstein, 2015), the difficulty in distinguishing the effects of three different and interrelated factors which are age, (i.e., variation associated with chronological, biological, psychological, and social age), period (i.e., variation associated with a specific time period), and cohort (i.e., variation resulting from the exposure to shared experiences of a group of individuals) (Rhodes, 1983; Schaie, 1986), the variety of analytical techniques to study generational differences (Costanza, Darrow, Yost, and Severt, 2017), and the impact of national history and culture on the definition of generations (Parry and Urwin, 2011).

In light of these critiques to research on generations and facing the lack of empirical evidence, we ask: Can we talk about generations and generationally based differences at work? We maintain that these inconsistencies can be explained by three different phenomena: perceived generational differences, historical and sociocultural context, and age.

Generations in the workplace

A generation is a group of individuals who, by virtue of their chronological age proximity, had experienced and were influenced by a specific historical and sociocultural context during formative years of life (Mannheim, 1952; Rudolph and Zacher, 2017).

Generation is a social construct as it results from an interaction process that occurs between individuals, their immediate environment and their broader context (Alwin and McCammon, 2007; Lyons and Schweitzer, 2017). Supporters of the notion of generations argue that individuals who were born and raised in the same context will often share values, attitudes, beliefs, feelings, and behaviors, which distinguish them from other individuals who grew up in different contexts (Inglehart, 1977; Pilcher, 1994; Strauss and Howe, 1991). These differences are often summarized in terms of characteristics that define each generation, differentiate it from others, and influence work-related outcomes. For example, Boomers are stereotypically described as loyal and attached to organizations (Becton, Walker, and Jones-Farmer, 2014), which results in higher levels of intention to stay (D'Amato and Herzfeldt, 2008), compared to younger generations.

Under this assumption, many researchers have suggested that organizations create workplaces that meet the needs and expectations of workers of each generation (Benson and Brown, 2011; Cennamo and Gardner, 2008). These proposals are based on previous research that views generations as an explanatory factor of several work-related phenomena and outcomes (Costanza and Finkelstein, 2017). Previous research on generational differences examined a wide variety of topics, such as work values (e.g., Cogin, 2012; Lester, Standifer, Schultz, and Windsor, 2012; Smola and Sutton, 2002), work meaning (e.g., Weeks and Schaffert, 2019), psychological traits (e.g., Twenge and Campbell, 2008), work-life balance (e.g., Beutell and Wittig-Berman, 2008) and career patterns (e.g., Lyons, Schweitzer, Ng, and Kuron, 2012). Many have focused on generationally based differences in work values acknowledging the role of work values in predicting various work-related outcomes like job satisfaction (e.g., Monahan, 2013), career choice (e.g., Judge and Bretz, 1992), human resources initiatives (e.g., Jurkiewicz, 2000) and organizational citizenship behaviors (e.g., Ryan, 2002). Given the relevance of work values in the organizational literature, we will examine generational differences in work values.

Despite the lack of empirical evidence and all the criticisms, generations continue to be discussed as the cause of differences in workplace preferences. However, a growing group of scholars (e.g., Costanza and Finkelstein, 2015; Giancola, 2006) have been questioning the validity of this social construct. With this in mind, this study seeks to contribute to generational research by a) emphasizing the preeminence of perceived generational differences over actual generational differences; b) proposing a generational classification for the Portuguese context that is more suitable to explain inter-individual differences in work values; c) highlighting age as a more accurate predictor of work values than generations.

Actual and Perceived Generational Differences

In society, there are widely held perceptions that generations are different. Researchers have been proposing that these differences can be explained by the Social Identity Approach (Abrams and Hogg, 2004; Reicher, Spears, and Haslam, 2010), which includes two related socio-cognitive theories: social identity theory (SIT) and self-categorization theory (SCT; Hogg, 2005; Hogg, Terry, and White, 1995; Tajfel and Turner, 1986). According to this approach, a generation can be conceptualized as a social category of reference for the individual's self-concept (Standifer and Lester, 2019; Weeks, Weeks, and Long, 2017). Thus, when people see themselves as a member of a generation, they mentally associate themselves with the perceived attributes and norms of this group in a process of self-stereotyping (Hogg and Terry, 2000; Turner, 1985). We would, therefore, expect that when the generation becomes salient for the individuals, they would assimilate the group's perceived beliefs, attitudes, and behaviors for themselves, reporting to value the same workplace characteristics that the members of their generation.

However, this prevailing belief has been challenged by several studies that did not find support for generationally based differences (e.g., Costanza *et al*., 2012; Macky, Gardner, and Forsyth, 2008). Nevertheless, these findings have not persuaded those who point to generations as an objective explanation for inter-individual differences.

In response, recent research has proposed perceived generational differences as a possible explanation for the inconsistencies found in the literature. Perceived differences can also be explained by the Social Identity Approach. According to this perspective, group members categorize themselves and others into ingroups and outgroups based on perceived similarities and differences, in an attempt to simplify and understand their social environment. Then, one assigns to all the members of one group the prototypical characteristics of that group (Turner, 1985).

Due to widespread popular beliefs about generations' preferences and to cross-generational interactions, workers identify prototype characteristics of each generation and create impressions about what other generations value (Lester *et al*., 2012; Standifer and Lester, 2019). These generational stereotypes have been perpetuated in our culture through books, magazines and newspapers (Costanza and Finkelstein, 2015; Kitch, 2003; Lester *et al*., 2012). Also, the attention given today to generations and generational differences "*likely makes an individual's generational membership meaningful and salient*" (Perry *et al*., 2017: 187), serving as an implicitly activated stereotype (Eschleman, King, Mast, Ornellas, and Hunter, 2017).

The persistence of generational stereotypes in organizations suggests that many workers tend to adhere to the common generational characteristics and consequently believe in the accuracy of stereotypes (Urick, 2014). Confirmation bias leads workers to seek evidence that is consistent with generational stereotypes while ignoring evidence that is incongruent (Riggio and Saggi, 2015). These stereotypes probably account for the managers and workers' beliefs that there are *actual* generational differences (i.e., that people really value different characteristics at work) (Parry and Urwin, 2017; Perry *et al*., 2017).

With those stereotypes as references, workers tend to enhance perceived similarities within the ingroup and maximize the perceived differences between the ingroup and the outgroup, possibly believing that colleagues in their generation are more similar among them and more different from colleagues belonging to other generations. Therefore, workers believe others to have different work values based on their generational membership. Thus, we state that:

> H_1: There are more perceived differences in work values between generations than actual differences.

Context Differences

Generation is socially constructed emphasizing the centrality of a particular national context and its unique events in creating shared formative experiences. However, most of the research on generational differences has been conducted in Western contexts such as the United States (US), United Kingdom (UK) and Australia (Parry and Urwin, 2011). For that reason, both scholars and practitioners tend to adopt the US taxonomy of generations (Baby Boomers, Generation X and Generation Y). However, this dominant taxonomy might not be applicable in other cultures as social, economic, cultural, and political events may differ across countries (Mannheim, 1952; Nakai, 2015; Parry and Urwin, 2011). For example, Murphy, Gordon and Anderson (2004) found cross-cultural age and generational differences in values of working adult populations in Japan and US. Also, Egri and Ralston (2004) defined four generations for the Chinese context and found differences between each of the US and Chinese cohorts. These findings demonstrate that generational characteristics are not globally valid but specific to a national setting.

In this sense, it is reasonable to consider that Portuguese generational cohorts are different. Despite Portugal being a Western country, individuals internalized and processed global events (e.g., World War II, moon landing) differently from other countries and experienced unique events, which affects generational characteristics (Cadiz, Truxillo, and Fraccaroli, 2015). However, the Portuguese literature on generations and their formative experiences is sparse.

Researchers identify the Carnation Revolution, on April 25, 1974, as the most important event in Portugal's recent history (Fishman, 2011). Therefore, it is expected that the Carnation Revolution delimits where each generation begins and ends, shaping individuals' values and characteristics. Thus, we propose two generations for the Portuguese context: the Dictatorship generation that includes individuals born between 1933 and 1974, and the Carnation Revolution generation, which includes those born in or after 1974.

The Dictatorship generation was socialized under a non-democratic regime called Estado Novo (New State), which lasted from 1933 to 1974. This authoritarian regime was marked by the colonial war, the oppression and repression by PIDE (i.e., International Police for State Defense), the censorship of the press and the arts, and the creation of paramilitary organizations for training the young according to the regime's vision (God, Homeland, Family) (Baiôa, Fernandes, and Meneses, 2003). Individuals were born and raised in nationalist, authoritarian and conservative values (Corkill and Pina Almeida, 2009).

The Carnation Revolution generation had access to better living conditions in general. After the Revolution, individuals witnessed economic development, social stability, and political freedom; they gained access to higher education and started to participate in political decision-making, which resulted in growing levels of literacy, education, and cognitive skills (Sanches and Gorbunova, 2016). There was a generational shift to more liberal values, such as self-expression (Inglehart and Welzel, 2003).

The Carnation Revolution represented also a radical shift in labor law that may have affected the work values. Before the revolution of 1974, labor legislation and workers' rights were sparse, and unions were illegal. The Portuguese Constitution of 1976 consecrated fundamental labor rights related to employment contracts and industrial relations, acknowledging a more egalitarian relationship between workers and employers: the establishment of the minimum wage; the creation of a scheme of social protection (e.g., social pensions, unemployment pension, maternity leave); the establishment of annual paid holidays; the regulation of the exercise of freedom to create unions and workers' councils, the right to collective bargaining and the right to strike (Ramalho, 2013).

Based on the political and social changes in Portugal, these two generations seem more suitable for the Portuguese context. Thus, we propose:

H_2: There are more actual differences in work values according to the Portuguese classification of generations than with the US classification of generations.

Age Differences

Generations and age are defined in the literature as two related but different constructs. Both constructs have been widely investigated as predictors of different work-related aspects and outcomes, although their role remains unclear. For example, Lyons and Schweitzer (2017) found that generations are a vague conceptualization associated with age: generations are used as a frame for sensemaking and as labels to young and old people within a given context.

The generational paradigm assumes a static view of individuals arguing that they maintain their characteristics and preferences over time while ignoring their needs, interests and desires (Costanza and Finkelstein, 2015). In fact, Inglehart (1997) states that attitudes and behaviors cultivated in formative years (i.e., from late childhood to early adulthood) persist over time, despite changes in life stages. Therefore, the social, historical and cultural events that define a generation will continue to shape the lives of these individuals in the future, even when they are no longer young. Thus, Generation Y will always be Generation Y, as well as Baby Boomers have always been Baby Boomers. However, this premise of youth as the most critical time of generational formation was challenged, for example, by Burnett's (2003) research into the lives of people in their thirties. Findings suggest that today, individuals have the possibility of making new contacts outside their generation and, consequently, generational identity can be reinvented throughout one's life course (France and Roberts, 2015).

So, the generational perspective understands society as a set of homogeneous groups and neglects the variability within generations that can be attributed to the aging process. Aging is an individual process of biopsychosocial development, characterized by inter-individual differences in genetic and environmental factors (Baltes and Baltes, 1990; Cavanaugh, 1997). As aging is a dynamic process, a lifespan development perspective is more suitable to describe and explain intraindividual and inter-individual variability in experiences and behavior across time (Rudolph and Zacher, 2017). According to Deal, Altman and Rogelberg, (2010), maturation, life stage, and other environmental factors are more likely to influence individual behaviors than generational membership. Also, more recently, Campbell, Twenge, and Campbell (2017) found that there are no clear cut-offs between generations in terms of work-related attitudes and values, since in the first and last years of each generation the differences were minimal. In fact, trends in their data were relatively linear or curvilinear with gradual changes over time and between generations.

Hence, while the Social Identity Approach can explain how individuals categorize themselves and the others into ingroups (own generation) and outgroups (other generations) that are stable throughout life, the lifespan perspective describes how people change over time according to their individual experiences. Therefore, age is a more precise descriptor than generation to predict inter-individual differences in work values, as gradual within-person changes will likely occur over time in motivation (e.g., Kooij *et al.*, 2011), personality (e.g., Roberts *et al*., 2006), cognition (e.g., Schaie, 1994) and emotions (e.g., Carstensen *et al*., 2011). As such, we propose:

> H_{3a}: There are more actual differences in work values according to workers' age than with US and Portuguese classifications of generations.
>
> H_{3b}: Effect sizes are greater for age-related differences in work values than for generational (US and Portuguese classifications) differences.

METHOD

Participants and Procedure

The sample consisted of 705 Portuguese workers, aged between 19 and 75 years old (*M* = 39.10, *SD* = 12.42). Among participants, 56.3% were female, and almost half (48.9%) completed High Education. The tenure of participants varied: 21.9% were in the organization for one to three years, and 30.5% were in the organization for more than 15 years. The most represented industries were Tourism (18.5%), Sales (17.0%), Public Administration (13.2%), Health and social support (8.7%), and Education and training (8.0%).

Data for this study were collected through a questionnaire, with both a web version and a paper and pencil version. Participants took approximately 20 minutes to complete the questionnaire. First, to have access to different industries in Portugal, we contacted several organizations and asked permission to send the questionnaire to their employees. Second, data were collected by a group of undergraduate and master students from ISCTE-University Institute of Lisbon, who participated in this research as part of their academic training and got credits to their evaluation.

Measures

Generations. Using the US generational cutoffs of previous investigations (Costanza *et al*., 2012; Lester *et al*., 2012), participants born between 1946 and 1964 are Baby Boomers, those born between 1965 and 1983 are Generation X, and those born in or after 1984 belong to Generation Y. Across the 705 participants, 20.1% were categorized as Baby Boomers, 42.7% were categorized as Generation X, and 37.2% were categorized as Generation Y. Using the proposed Portuguese classification, participants born between 1933 and 1973 belong to the Dictatorship generation and represent 42.0%, and those born in or after 1974 belong to the generation labeled Carnation Revolution generation, representing 58.0%.

Work values. In line with previous research (Lester *et al*., 2012; Standifer and Lester, 2019), we used two measures: *I Value* for actual differences and *Generations Value* for perceived differences. *I Value* measures the extent to which participants valued 15 different items in their workplace. Participants indicated how much they valued each one of the following 15 items in a 6-point Likert scale (1 = No extent to 6 = Very great extent): (a) teamwork, (b) autonomy, (c) security, (d) professionalism, (e) flexibility, (f) formal authority, (g) openness to new technology, (h) face-to-face communication, (i) e-mail communication, (j) social media, (k) structure at work, (l) empowered participation, (m) learning opportunities, (n) fun at work, and (o) recognition. A list of the characteristics is provided in the Appendix A.

Generations Value assesses the extent to which participants believed each of the three US generations valued the 15 items. For example, participants rated first each item in accordance to how much they believed a Boomer would value that item in the workplace. A list of the characteristics is provided in the Appendix A.

Self-report measures can potentially inflate relationships between variables and, consequently, common method variance (CMV) could affect the results (Conway and Lance, 2010; Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). Despite this, we argue that self-reports are appropriate for work values as they reflect a personal evaluation by which individuals determine their preferences for various work aspects and work-related outcomes (*I Value* measure). We focus also on *perceived* work values (*Generations Value* measure), which makes self-reports a more pertinent measurement method.

Data Analyses

A descriptive analysis was conducted using mean, standard deviation (SD), coefficient of variation (C_v), skewness coefficient and respective standard error. Given the asymmetry of the items distribution, Spearman's coefficient correlation was privileged to explore the correlations between the variables. To test the regression models, a non-linear regression – Categorical Regression with optimal scaling (CATREG) – was performed to deal with the asymmetry of the variables (van der Kooij, Meulman, and Heiser, 2006). Gender and education were included as control variables (Hansen and Leuty, 2012; Lyons, Duxbury, and Higgins, 2005). In line with the previous procedures, a bootstrap method was implemented to test pairwise comparisons between generations. Data analysis was conducted by IBM-SPSS Statistics 24.0.

RESULTS

Tables 2.1, 2.2, 2.3 and 2.4 present the overall means and standard deviations of the independent and dependent variables as well as their correlations.

The C_V is a useful statistic to compare the degree of variation between variables and it ranged from 15.3% to 48.5%. A C_V exceeding about 30% is often indicative of problems in the representativeness of the mean (Brown, 1998). In addition, the ratio of skewness to its standard error (z-score of skewness) can be used as a test of normality (West, Finch, and Curran, 1995). In this sample, the z-score of skewness ranged from -17.53 to .11 for *I Value* measure, and from -15.48 to 1.46 for *Generations Value* measure, indicating a high level of asymmetry in the dependent variables.

Considering that work values were presented to participants as a list of 15 items, we assessed the potential conceptual overlap in items that can bias the relationships, mitigating the impact of CMB in this study (Conway and Lance, 2010). First, multicollinearity between the 15 work values was analyzed for I Value, Baby Boomers Value, Generation X Values and Generation Y Values. The obtained variance inflation factor (VIF) values ranged from 1.39 to 2.28 for I Value, from 1.32 to 2.52 for Baby Boomers Value, from 1.52 to 2.46 for Generation X Values and from 1.54 to 2.56 for Generation Y Values. Given that the VIF values were below the cut-off of 5 (Hair, Ringle, and Sarstedt, 2013), multicollinearity is not a concern in this study.

Table 2.1. Means, standard deviations, and correlations for independent variables, control variables and *I Value*

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.	US Generations[a]	1.83	.74																			
2.	PT Generations[b]	1.42	.49	.75**																		
3.	Age	39.10	12.42	.93**	.86**																	
4.	Gender	.44	.50	-.06	-.04	-.05																
5.	Education	.49	.50	-.24**	-.20**	-.23**	-.11**															
6.	Teamwork	5.11	1.12	-.04	-.05	-.05	-.07	-.03														
7.	Autonomy	4.75	1.00	-.07	-.06	-.06	-.16**	.09*	.31**													
8.	Security	5.15	.97	.06	.00	.05	-.09*	-.07	.40**	.40**												
9.	Professionalism	5.41	.83	.02	.01	.03	-.10**	-.01	.38**	.37**	.51**											
10.	Flexibility	4.72	1.07	-.06	-.08*	-.07	-.13**	.09*	.29**	.42**	.34**	.39**										
11.	Formal authority	4.05	1.15	.01	-.02	.02	.03	-.08*	.21**	.26**	.27**	.25**	.38**									
12.	Openness to new tech.	4.79	1.05	-.03	-.05	-.03	.03	.07	.25**	.33**	.22**	.36**	.42**	.33**								
13.	Face-to-face com.	4.86	1.12	-.10**	-.11**	-.12**	-.07	.03	.36**	.28**	.31**	.38**	.36**	.34**	.40**							
14.	E-mail communication	4.06	1.30	-.03	-.01	-.03	-.11**	.12**	.16**	.24**	.09*	.19**	.40**	.36**	.43**	.26**						
15.	Social media	3.51	1.40	-.01	-.01	.00	-.07	.05	.12**	.17**	.07	.11**	.34**	.32**	.38**	.23**	.56**					
16.	Structure at work	4.90	1.06	-.05	-.09*	-.08*	-.05	.04	.33**	.30**	.36**	.37**	.40**	.32**	.39**	.37**	.36**	.24**				
17.	Empowered participation	4.91	.99	-.12**	-.13**	-.12**	-.11**	.06	.37**	.40**	.31**	.32**	.44**	.30**	.39**	.47**	.32**	.34**	.52**			
18.	Learning opportunities	5.17	.96	-.06	-.10*	-.07	-.11**	.07	.34**	.32**	.32**	.38**	.40**	.26**	.46**	.41**	.27**	.27**	.47**	.62**		
19.	Fun at work	5.36	.90	-.06	-.10**	-.08*	-.11**	.06	.31**	.22**	.36**	.33**	.30**	.18**	.29**	.41**	.16**	.20**	.42**	.50**	.52**	
20.	Recognition	5.35	.93	-.01	-.03	-.02	-.07	.03	.26**	.24**	.33**	.33**	.35**	.19**	.32**	.32**	.17**	.23**	.36**	.49**	.48**	.51**

N ranged between 688 and 705

[a] Generation Y = 1; Generation X = 2; Baby Boomers = 3

[b] Generation Revolution = 1; Generation Dictatorship = 2

Note: Gender, and education were dummy coded (female = 0; male = 1; without high education = 0; with high education = 1).

* p <.05 ** p < .01

Table 2.2. Means, standard deviations, and correlations for independent variables, control variables and *Baby Boomers Value*

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.	US Generations[a]	1.83	.74																			
2.	PT Generations[b]	1.42	.49	.75**																		
3.	Age	39.10	12.42	.93**	.86**																	
4.	Gender	.44	.50	-.06	-.04	-.05																
5.	Education	.49	.50	-.24**	-.20**	-.23**	-.11**															
6.	Teamwork	4.59	1.29	.13**	.09*	.12**	-.07	-.16**														
7.	Autonomy	4.66	1.15	-.03	.01	-.03	-.06	.06	.25**													
8.	Security	5.28	.95	-.09*	-.11**	-.09*	-.09*	.06	.22**	.36**												
9.	Professionalism	5.17	.95	-.01	-.02	.00	-.08*	.03	.31**	.41**	.52**											
10.	Flexibility	4.33	1.26	.03	.04	.04	-.17**	-.04	.40**	.34**	.27**	.36**										
11.	Formal authority	4.34	1.22	-.11**	-.10**	-.12**	-.01	.02	.15**	.31**	.26**	.34**	.31**									
12.	Openness to new tech.	3.63	1.37	.28**	.25**	.29**	-.06	-.13**	.38**	.21**	.10**	.23**	.41**	.21**								
13.	Face-to-face com.	4.87	1.07	-.11**	-.14**	-.13**	-.06	.03	.27**	.32**	.36**	.42**	.30**	.41**	.19**							
14.	E-mail communication	3.36	1.34	.21**	.22**	.24**	-.10**	.00	.26**	.19**	.04	.16**	.35**	.23**	.69**	.17**						
15.	Social media	2.93	1.42	.21**	.22**	.24**	-.09*	-.06	.24**	.13**	-.03	.07	.37**	.20**	.63**	.14**	.73**					
16.	Structure at work	4.74	1.04	-.04	-.06	-.06	-.06	.01	.38**	.31**	.32**	.50**	.35**	.36**	.25**	.45**	.25**	.21**				
17.	Empowered participation	4.67	1.12	.04	.01	.03	-.09*	-.03	.45**	.34**	.32**	.43**	.40**	.29**	.35**	.45**	.31**	.28**	.55**			
18.	Learning opportunities	4.22	1.28	.15**	.11**	.15**	-.14**	-.12**	.46**	.28**	.18**	.34**	.45**	.26**	.57**	.32**	.46**	.46**	.39**	.53**		
19.	Fun at work	5.07	1.08	.03	.02	.04	-.12**	.02	.42**	.26**	.35**	.45**	.32**	.19**	.27**	.45**	.19**	.20**	.47**	.53**	.52**	
20.	Recognition	5.25	.98	-.01	-.04	-.02	-.17**	.06	.30**	.32**	.40**	.47**	.31**	.28**	.15**	.43**	.11**	.14**	.46**	.50**	.36**	.59**

N ranged between 688 and 705

[a] Generation Y = 1; Generation X = 2; Baby Boomers = 3

[b] Generation Revolution = 1; Generation Dictatorship = 2

Note: Gender, and education were dummy coded (female = 0; male = 1; without high education = 0; with high education = 1).

* $p < .05$ ** $p < .01$

Table 2.3. Means, standard deviations, and correlations for independent variables, control variables and *Generation X Values*

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.	US Generations^{a}	1.83	.74																			
2.	PT Generations^{b}	1.42	.49	.75**																		
3.	Age	39.10	12.42	.93**	.86**																	
4.	Gender	.44	.50	-.06	-.04	-.05																
5.	Education	.49	.50	-.24**	-.20**	-.23**	-.11**															
6.	Teamwork	4.95	1.02	.05	.02	.04	-.08*	-.05														
7.	Autonomy	4.96	.89	-.11**	-.06	-.09*	-.14**	.05	.51**													
8.	Security	5.27	.86	-.03	-.05	-.02	-.10*	.01	.43**	.48**												
9.	Professionalism	5.24	.85	-.05	-.05	-.05	-.14**	.03	.52**	.56**	.58**											
10.	Flexibility	4.75	1.02	-.04	-.04	-.03	-.16**	.03	.40**	.51**	.42**	.54**										
11.	Formal authority	4.42	1.07	-.07	-.02	-.04	-.01	.01	.29**	.37**	.28**	.33**	.40**									
12.	Openness to new tech.	4.69	.98	.16**	.13**	.17**	-.11**	.01	.41**	.38**	.31**	.39**	.50**	.35**								
13.	Face-to-face com.	4.86	1.02	-.11**	-.10*	-.12**	-.08*	.05	.40**	.44**	.40**	.49**	.48**	.46**	.46**							
14.	E-mail communication	4.40	1.18	.08*	.07	-.11**	-.18**	.09*	.31**	.33**	.18**	.28**	.43**	.36**	.60**	.39**						
15.	Social media	3.93	1.31	.16**	.15**	-.19**	-.12**	.01	.24**	.23**	.09*	.15**	.35**	.39**	.53**	.26**	.64**					
16.	Structure at work	4.90	.96	.00	.01	.00	-.10*	.01	.47**	.46**	.43**	.53**	.48**	.44**	.45**	.53**	.41**	.36**				
17.	Empowered participation	5.00	.91	.03	-.01	.01	-.16**	.04	.42**	.46**	.41**	.52**	.52**	.36**	.48**	.50**	.40**	.34**	.62**			
18.	Learning opportunities	5.00	.94	.09*	.05	.09*	-.16**	.03	.46**	.39**	.37**	.48**	.46**	.33**	.54**	.46**	.37**	.37**	.51**	.64**		
19.	Fun at work	5.22	.93	.02	-.02	.00	-.13**	.03	.42**	.41**	.43**	.50**	.38**	.25**	.42**	.48**	.32**	.26**	.49**	.58**	.62**	
20.	Recognition	5.36	.83	.02	.01	.01	-.17**	.13**	.36**	.39**	.40**	.53**	.43**	.28**	.40**	.45**	.29**	.24**	.50**	.57**	.53**	.65**

N ranged between 682 and 705

^{a}Generation Y = 1; Generation X = 2; Baby Boomers = 3

^{b}Generation Revolution = 1; Generation Dictatorship = 2

Note: Gender, and education were dummy coded (female = 0; male = 1; without high education = 0; with high education = 1).

* $p <.05$ ** $p < .01$

Table 2.4. Means, standard deviations, and correlations for independent variables, control variables and *Generation Y Values*

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.	US Generations[a]	1.83	.74																			
2.	PT Generations[b]	1.42	.49	.75**																		
3.	Age	39.10	12.42	.93**	.86**																	
4.	Gender	.44	.50	-.06	-.04	-.05																
5.	Education	.49	.50	-.24**	-.20**	-.23**	-.11**															
6.	Teamwork	5.15	1.02	-.04	-.05	-.05	-.08*	.04														
7.	Autonomy	4.91	.99	-.10*	-.09*	-.11**	-.12**	.07	.41**													
8.	Security	4.84	1.14	-.08*	-.04	-.07	-.09*	-.07	.39**	.42**												
9.	Professionalism	5.02	1.00	-.07	-.05	-.06	-.10**	-.03	.50**	.55**	.58**											
10.	Flexibility	4.90	1.04	-.10*	-.08*	-.11**	-.09*	.09*	.39**	.48**	.33**	.49**										
11.	Formal authority	4.15	1.19	-.02	-.04	-.02	-.08*	-.06	.28**	.36**	.41**	.45**	.32**									
12.	Openness to new tech.	5.32	.91	-.09*	.08*	.08*	-.13**	.10**	.33**	.37**	.19**	.28**	.41**	.20**								
13.	Face-to-face com.	4.73	1.15	-.14**	-.14**	-.15**	-.10**	-.04	.42**	.44**	.48**	.52**	.38**	.48**	.31**							
14.	E-mail communication	4.86	1.16	.04	.06	.06	-.18**	.07	.22**	.34**	.20**	.22**	.35**	.32**	.58**	.28**						
15.	Social media	4.73	1.32	.09*	.09*	.11**	-.16**	.08*	.15**	.25**	.09*	.07	.29**	.19**	.52**	.16**	.70**					
16.	Structure at work	4.81	1.06	-.03	-.01	-.03	-.09*	.03	.42**	.41**	.48**	.53**	.38**	.46**	.30**	.51**	.36**	.25**				
17.	Empowered participation	5.11	.90	-.06	-.04	-.04	-.14**	.06	.37**	.51**	.32**	.48**	.46**	.32**	.47**	.40**	.41**	.33**	.50**			
18.	Learning opportunities	5.34	.87	.03	.01	.04	-.13**	.09*	.36**	.38**	.27**	.43**	.42**	.21**	.47**	.34**	.34**	.32**	.48**	.60**		
19.	Fun at work	5.30	.92	-.05	-.05	-.05	-.10**	.05	.40**	.39**	.37**	.52**	.37**	.24**	.34**	.42**	.29**	.20**	.45**	.48**	.58**	
20.	Recognition	5.34	.88	-.05	-.05	-.06	-.16**	.02	.34**	.47**	.34**	.51**	.39**	.22**	.35**	.35**	.31**	.25**	.46**	.52**	.55**	.61**

N ranged between 680 and 705

[a] Generation Y = 1; Generation X = 2; Baby Boomers = 3

[b] Generation Revolution = 1; Generation Dictatorship = 2

Note: Gender, and education were dummy coded (female = 0; male = 1; without high education = 0; with high education = 1).

* $p < .05$ ** $p < .01$

Also, partial correlations between all the variables were analyzed. In 420 partial correlations, nine correlations could be considered moderate associations and only two were strong associations (Cohen, 1992). These results suggest there is a lack of conceptual overlap in items, and therefore the common method variance did not affect this study.

Actual and Perceived Differences in Work Values

To test the first hypothesis, we started by examining actual generational differences in 15 work values. We found actual generational differences in five work values: professionalism, autonomy, structure at work, empowered participation and fun at work (these last two were marginally significant) (Table 2.5). As presented in Table 2.6, pairwise comparisons showed that Baby Boomers valued the last four work values less than both Generations X and Y. In addition, Generation X revealed to value professionalism more than Generation Y.

We proceeded the hypothesis test with the analysis of perceived generational differences. For perceptions about the values of Baby Boomers, results indicated significant perceived generational differences for seven items: security, formal authority, face-to-face communication, social media, structure at work, teamwork and professionalism (these two values were marginally significant). Significant pairwise comparisons across generations are presented in Table 2.6.

For teamwork and social media, Baby Boomers reported they valued them more than Generation Y believed Boomers valued it. In contrast, Baby Boomers indicated that they valued security, formal authority, face-to-face communication and structure at work less than Generation Y believed the Boomers valued it (the last value was marginally significant). Additionally, Generation Y and Generation X differed in their perceptions about what Baby Boomers valued across six items: teamwork, security, formal authority, face-to-face communication, social media and professionalism (this value was marginally significant). Generation Y believed Boomers valued teamwork and social media less than Generation X believed the Boomers valued them. In contrast, for the remaining four work values, Generation Y reported to believe that Baby Boomers value these items more than Generation X believed Boomers valued them.

Table 2.5. Regression results for *I Value*, US Generations and control variables

Dependent variables		Independent variable	Control variables			
		US Generations [Gen]	Gender [G]	Education [E]	[Gen * G]	[Gen * E]
Teamwork	Beta	.100	.093	.054	.014	.049
	R_{part}^2	.004				
Autonomy	Beta	.219*	.028	.129	.274**	.135†
	R_{part}^2	.017				
Security	Beta	.081	.070	.092	.104	.059
	R_{part}^2	.002				
Professionalism	Beta	.257*	.072	.211*	.085	.285***
	R_{part}^2	.011				
Flexibility	Beta	.075	.094	.078	.073	.023
	R_{part}^2	.003				
Formal authority	Beta	.072	.072	.220*	.174*	.186*
	R_{part}^2	.001				
Openness to new technology	Beta	.102	.041	.106	.070	.056
	R_{part}^2	.004				
Face-to-face communication	Beta	.106	.157†	.112	.162†	.137†
	R_{part}^2	.003				
E-mail communication	Beta	.119	.042	.138†	.088	.029
	R_{part}^2	.005				
Social media	Beta	.050	.049	.039	.048	.084
	R_{part}^2	.003				
Structure at work	Beta	.258*	.043	.197†	.045	.291***
	R_{part}^2	.013				
Empowered participation	Beta	.203†	.150†	.081	.047	.145
	R_{part}^2	.008				
Learning opportunities	Beta	.116	.194*	.114	.124	.207**
	R_{part}^2	.000				
Fun at work	Beta	.176†	.126	.058	.071	.139†
	R_{part}^2	.014				
Recognition	Beta	.085	.131	.034	.118	.078
	R_{part}^2	.002				

N ranged between 686 and 693

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 2.6. Pairwise comparisons of Actual and Perceived Generational Differences

Dependent variables	I Value			Boomers Value		Generation X Values			Generation Y Values		
Teamwork				$Y < X^{**}$	$Y < BB^{**}$	$Y < X^{*}$					
Autonomy		$Y > BB^{*}$	$X > BB^{\dagger}$				$Y > BB^{***}$	$X > BB^{**}$	$Y > X^{\dagger}$	$Y > BB^{*}$	
Security				$Y > X^{**}$	$Y > BB^{*}$				$Y > X^{*}$		
Professionalism	$Y < X^{*}$			$Y > X^{\dagger}$			$Y > BB^{**}$	$X > BB^{***}$		$Y > BB^{\dagger}$	$X > BB^{\dagger}$
Flexibility						$Y < X^{\dagger}$	$Y > BB^{\dagger}$	$X > BB^{**}$			
Formal authority				$Y > X^{**}$	$Y > BB^{*}$		$Y > BB^{**}$	$X > BB^{\dagger}$			
Openness to new tech.						$Y < X^{***}$	$Y < BB^{**}$				
Face-to-face com.				$Y > X^{**}$	$Y > BB^{***}$		$Y > BB^{***}$	$X > BB^{***}$		$Y > BB^{**}$	
E-mail communication						$Y < X^{***}$			$Y < X^{**}$		$X > BB^{*}$
Social media				$Y < X^{***}$	$Y < BB^{***}$				$Y < X^{***}$		
Structure at work			$X > BB^{\dagger}$		$Y > BB^{\dagger}$		$Y < BB^{\dagger}$				$X > BB^{\dagger}$
Empowered participation		$Y > BB^{**}$	$X > BB^{*}$					$X > BB^{*}$		$Y > BB^{**}$	$X > BB^{**}$
Learning opportunities						$Y < X^{***}$		$X > BB^{\dagger}$			
Fun at work		$Y > BB^{**}$	$X > BB^{**}$			$Y < X^{\dagger}$		$X > BB^{**}$			
Recognition							$Y > BB^{*}$	$X > BB^{**}$		$Y > BB^{*}$	$X > BB^{*}$

N ranged between 680 and 694

$^{\dagger}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

Note: Y – Generation Y; X – Generation X; BB – Baby Boomers

Only significant pairwise comparisons are reported.

The analysis to determine the generations' perception of what Generation X valued had shown the most perceived differences of all the analyses. We found significant differences for 13 of the 15 work values: teamwork, autonomy, professionalism, flexibility, formal authority, face-to-face communication, e-mail communication, structure at work, empowered participation, learning opportunities, fun at work, recognition and openness to new technology (this last value was marginally significant). Significant pairwise comparisons across generations are presented in Table 2.6

For six items (teamwork, openness to new technology, e-mail communication, learning opportunities, flexibility and fun-at-work – these two last values were marginally significant), Generation Y thought Generation X valued these items less than Generation X indicated they did. For nine items (autonomy, professionalism, flexibility, face-to-face communication, empowered participation, fun at work, recognition, formal authority and learning opportunities – these two values were marginally significant), Generation X reported to value these items more than Baby Boomers believed that Generation X valued them. We also found eight work values in which Generation Y and Boomers differed in their perceptions about how Generation X valued a specific item: autonomy, professionalism, formal authority, face-to-face communication, recognition, flexibility and structure at work (these two values were marginally significant), and openness to new technology. For the first six, Generation Y's ratings suggest they reported Generation X valued these items more than the Boomers believed Generation X valued them. On the opposite, for the latter two items, Boomers' ratings suggested they believed Generation X to value these items more than Generation Y believed Generation X valued them.

Finally, regarding the Generation Y analysis, results showed significant perceived generational differences for nine work values: autonomy, security, face-to-face communication, e-mail communication, social media, structure at work, recognition, professionalism and empowered participation (these last two were marginally significant). Significant pairwise comparisons across generations are also presented in Table 2.6.

Generation Y indicated to value security and autonomy (this value was marginally significant) more than Generation X believed Generation Y valued it. In contrast, Generation X believed Generation Y valued e-mail communication and social media more than Generation Y reported. For five items (autonomy, face-to-face communication, empowered participation, recognition and professionalism – this last value was marginally significant), Generation Y reported to value them more than Baby Boomers indicated Generation Y did. Generation X and Baby Boomers differed in their perception about the extent to which Generation Y valued five items: e-mail communication, empowered participation, recognition, professionalism and structure at work (these last two were marginally significant). Generation X indicated to believe Generation Y valued these items more than Baby Boomers believed Generation Y valued it.

Considering the total number of pairwise comparison, we examined 135 potential perceived differences in work values, i.e., the perception of the importance attributed by each of the three generations (Generation Y, Generation X and Baby Boomers) to the 15 work values. We found 49 specific perceived differences out of the 135 potential perceived differences in work values. This represents 36.3% of possible perceived differences. As noted above, we found only 8 actual differences across five values (because Baby Boomers were different from both Generation X and Generation Y in three values). This represents 17.8% of possible actual differences. Thus, there are more perceived differences than actual differences, supporting the first hypothesis.

Portuguese Generations in Work Values

The second hypothesis compared the number of actual differences using the US generations and the Portuguese generations. For the Portuguese generations, we found significant differences in five work values: structure at work, empowered participation, autonomy, professionalism and learning opportunities (the last three were marginally significant, Table 2.7). Generation Revolution, the youngest generation, revealed to value these five items more than Generation Dictatorship.

Portuguese and US generations have the same number of actual differences in work values, and four values are common to both classifications: autonomy, professionalism, structure at work, and empowered participation. Overall, effect sizes were in the small level ($R^2 < .02$) (Cohen, 1992). Therefore, hypothesis 2 was not supported.

Effects of Age and Generation on Work Values

Finally, we compare the strength of generations and age in predicting the 15 work values. We found age differences in seven items: professionalism, formal authority, structure at work, empowered participation, learning opportunities, fun at work and face-to-face communication (this one is marginally significant, Table 2.8). For all these items, the older the worker, the less value he or she attributed to the item.

Table 2.7. Regression results for *I Value*, Portuguese generations and control variables

Dependent variables		Independent variable	Control variables			
		PT Generations [Gen]	Gender [G]	Education [E]	[Gen * G]	[Gen * E]
Teamwork	Beta	.179	.116	.199†	.040	.166
	R_{part}^2	.005				
Autonomy	Beta	.212†	.063	.046	.167	.041
	R_{part}^2	.006				
Security	Beta	.175	.141†	.280*	.028	.231†
	R_{part}^2	.004				
Professionalism	Beta	.318†	.052	.261*	.032	.361**
	R_{part}^2	.016				
Flexibility	Beta	.138	.157*	.015	.026	.118
	R_{part}^2	.001				
Formal authority	Beta	.132	.133	.337**	.212†	.356**
	R_{part}^2	.001				
Openness to new technology	Beta	.121	.105†	.037	.065	.107
	R_{part}^2	.010				
Face-to-face communication	Beta	.117	.178†	.132	.194	.156
	R_{part}^2	.002				
E-mail communication	Beta	.117	.035	.085	.073	.106
	R_{part}^2	.002				
Social media	Beta	.087	.010	.046	.048	.039
	R_{part}^2	.002				
Structure at work	Beta	.352*	.096	.271*	.058	.387**
	R_{part}^2	.014				
Empowered participation	Beta	.299*	.169*	.183	.099	.298**
	R_{part}^2	.006				
Learning opportunities	Beta	.188†	.108	.106	.188†	.266*
	R_{part}^2	.004				
Fun at work	Beta	.224	.231*	.192†	.173	.323**
	R_{part}^2	.001				
Recognition	Beta	.001	.135	.030	.076	.113
	R_{part}^2	.000				

N ranged between 687 and 694

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 2.8. Regression results for *I Value*, Age and control variables

Dependent variables		Independent variable	Control variables		
		Age	Gender [G]	Education [E]	[Age * E]
Teamwork	Beta	-.197	.091*	.210	.165
	R_{part}^2	.004			
Autonomy	Beta	-.023	.154***	.133	-.092
	R_{part}^2	.000			
Security	Beta	-.077	.127**	.192	.112
	R_{part}^2	.001			
Professionalism	Beta	-.362*	.098†	.416**	.506*
	R_{part}^2	.013			
Flexibility	Beta	-.079	.137**	.056	.017
	R_{part}^2	.001			
Formal authority	Beta	-.346*	.024	.428**	.467*
	R_{part}^2	.012			
Openness to new technology	Beta	-.062	.006	.079	.074
	R_{part}^2	.000			
Face-to-face communication	Beta	-.225†	.087*	.132	.117
	R_{part}^2	.005			
E-mail communication	Beta	-.062	.087*	.116	.053
	R_{part}^2	.000			
Social media	Beta	.136	.067	.163	-.148
	R_{part}^2	.002			
Structure at work	Beta	-.387**	.053	.334*	.414*
	R_{part}^2	.015			
Empowered participation	Beta	-.388*	.102†	.232†	.326†
	R_{part}^2	.015			
Learning opportunities	Beta	-.273*	.026	.123	.260†
	R_{part}^2	.007			
Fun at work	Beta	-.348*	.101*	.237†	.346†
	R_{part}^2	.012			
Recognition	Beta	-.062	.089*	.031	.110
	R_{part}^2	.000			

N ranged between 687 and 694

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

The number of age differences surpass the number of actual generational differences, using both classifications. Professionalism, structure at work, and empowered participations were significant for US generations, Portuguese generations, and worker's age. US generations and age were both a significant predictor of fun at work, whereas Portuguese generations and age significantly predicted learning opportunities. Additionally, we found age-related differences for formal authority and face-to-face communication, whereas both generational classifications did not predict any of these values. Only autonomy was significant for both generational classifications but not for workers' age. Therefore, hypothesis 3a was supported.

Comparing with both US and Portuguese generations, results suggest that age-related effect sizes for structure at work and empowered participation were larger than generational effect sizes. For professionalism, age-related effect size was larger than US generations effect size but smaller in comparison with Portuguese generations. For fun at work, age-related effect size was smaller than that of US generations. Finally, for learning opportunities, age-related effect size was larger than Portuguese generations' effect size. Thus, hypothesis 3b was partially supported.

DISCUSSION

This study investigated the relevance of perceived generational differences, cultural context, and age to explain the mixed findings on generational research. Although we did not define a specific hypothesis for actual differences among US generations, it is important to note that we found differences in only five out of 15 work values. These results suggest that generations are more similar than different, which corroborates some previous research (Lyons and Kuron, 2014). With the exception of professionalism, findings show that younger generations (generations Y and X) place a higher value on the other four characteristics than Baby Boomers. The higher values attributed by generations Y and X to autonomy, empowered participation, and fun at work are consistent with previous findings (e.g., Cogin, 2012; Wong, Gardiner, Lang, and Coulon, 2008). Surprisingly, Boomers placed less value on structure at work than Generation X, which is incongruent with claims that Generation X prefer less formality and more flexibility because they experienced important social changes (e.g., economic downturn) that made them more skeptical of power and authority (Lester *et al.*, 2012).

As hypothesized, our findings also show that perceived differences outnumber actual differences in work values. The high number of perceived generational differences is also indicative that individuals hold inaccurate images of other people based on their generational membership. These results are in accordance with past research and aligned with SIT, suggesting that each generation has stereotypes about other generations, which results in a larger number of perceived differences. In a complex and ambiguous context like work, individuals rely on these stereotypes to identify and categorize a colleague as a member of a specific generation. Then, individuals create “pictures in their heads” about what this colleague values and how he or she will behave, according to this membership.

Interestingly, our findings show that perceived differences are, in general, in line with common generational stereotypes. For example, Generation Y evaluated Boomers as less involved in social media than Boomers self-evaluation, confirming a view commonly present in society that older generations do not value technology. It is also worth pointing out that there were no differences between Generation X and Baby Boomers about what Boomers value, which seems to suggest that stereotypes regarding the oldest generation are less salient for those that are closer in age. Perceptions about Generation Y continue this pattern of common stereotypical attributions as Generation X indicated that e-mail communication, and social media were highly valued by the youngest generation. Perceived differences about Generation X were many and very complex. Not only was Generation X different from Generation Y and Boomers, but also these two disagreed among themselves about the most important values for Generation X. Being this the generation in the “middle”, it is possible that their work values are unclear because they are simultaneously an older and a younger generation.

The number of actual differences for Portuguese and US generations was the same. In fact, of the five significant work values, four were the same. For the Portuguese generations, learning opportunities were significant, which can be attributed to the emphasis placed on education by individuals after the Carnation Revolution. A possible explanation for rejecting the hypothesis may be the restricted definition of the generations for the Portuguese context as other significant historical events, besides the Carnation Revolution, can influence the emergence of Portuguese generations.

Moreover, age can be an alternative in predicting work values. Findings suggest that age is a more reliable predictor of differences in work values than generation, despite the small effects that were found. There are five work values with generational and age differences, which points to the possibility that age may be the underlying effect of these inter-individual differences, and not generations. This is an important contribution for generational research, showing the importance of age as an accurate explanatory variable. Despite the stability that generations reveal over time, it seems that age may introduce variability within a generation.

It is also interesting to note that age is negatively related with work values, which suggests that as individuals' age increased, less importance was assigned to these values. It appears that older workers are more aware of which values are the most important to them, while younger workers are influenced by a dazzling effect that lead them to attribute great importance to all values.

To sum up, our results suggest two possible explanations for the mixed findings found in the literature: perceived differences, which are developed from stereotypes, and age as a proxy for the individual maturation process. Stereotypes that are present in society influence individuals' perceptions of what other generations value. These widespread stereotypes influence also the expectations (e.g., values, characteristics, traits) that individuals believe other generations hold about their own generation, the so-called metastereotypes (Finkelstein, Ryan, and King, 2013). By assimilating these beliefs and being metastereotype conscious, individuals may change what they value and how they behave, as a self-fulfilling prophecy (Kamans, Gordijn, Oldenhuis, and Otten, 2009). Thus, it is possible that some participants answer questionnaires according to generational metastereotypes, leading to findings of generational differences in some studies, but not in others.

Age may be the underlying mechanism for explaining some inter-individual differences in work-related variables. Chronological age functions as a proxy for age-related processes such as emotional maturity, physical capacity, social roles, family status, or career stage, which can influence work-related outcomes directly or indirectly (Kanfer and Ackerman, 2004; Kooij, de Lange, Jansen, and Dikkers, 2008). So, in cross-sectional studies, when participants are asked to evaluate their current values, beliefs or attitudes, their answer is the result of the interaction between these age-related processes, and not only the events that marked their formative years. It is possible that there are more age-related differences than generational differences because the life stage of each individual is an outcome of his or her individual and unique experiences. Therefore, and according to a lifespan development perspective, individual work values can change throughout life.

Practical Implications

Since the publication of Mannheim's (1952) work, the concept of generation has changed and spread into the work setting. Many organizations have been assuming that each generational cohort requires a different and unique approach in recruitment, training, rewarding, or promotions. However, our findings point in a different direction.

The large number of perceived differences in our results draws attention to the potential negative outcomes of propagating generational stereotypes at work for both organizations and individuals. Social categorization leads individuals to social comparison between generations. Self-categorization theory (Turner, Hogg, Oakes, Reicher, and Wetherell, 1987) postulates that individuals tend to favor the ingroup (own generation), and to seek negative aspects of the outgroup (other generations) in order to enhance their self-image (Hogg and Terry, 2000). Although these social categories help to reduce uncertainty and cognitive effort, there is a real danger of overemphasizing generationally based stereotypes. Thus, perceptions of generational differences in values and behaviors at work can lead to prejudice and, in the end, trigger tensions. If there is a perception of limited resources in the organization, intergenerational conflict may arise. Additionally, workers who feel they can be the target of demeaning stereotypes may experience reduced psychological well-being (von Hippel, Kalokerinos, and Henry, 2013). For that reason, organizations should implement effective strategies for reducing stereotypes such as promoting intergenerational contact, offering specific training about unconscious bias, and developing organizational norms, goals, and practices related to fairness and accuracy (North and Fiske, 2015; Perry, Golom, and McCarthy, 2015). These interventions allow workers to develop awareness about the similarities – and the absence of certain differences – between generations and, simultaneously, help managers to be aware of the real expectations of all their workers, regardless of their own stereotypes (Urick, Hollensbe, Masterson, and Lyons, 2017).

Given the similarity between generations and the relevance of age, the need and effectiveness of differentiating HR practices according to generational cohort is debatable. Organizations should use a more idiosyncratic approach in their practices and policies, and managers should treat workers as individuals rather than just as members of one specific generation (Twenge, 2010). Organizations should create HR practices that fit individual needs, which are different from individual to individual, and that can change over time for the same individual. For example, organizational practices that now meet the needs of flexibility of a 30-year-old worker (e.g., for getting children to and from school) may not meet individual needs in 20 years (e.g., when the children are independent). Despite this worker being a member of Generation Y now and in 20 years, his or her preferences may change. The idea is that HRM decisions should take into account individual characteristics like age but also characteristics of the individual's context.

Limitations and future research

In this study, we use a cross-sectional research design. Despite this being the most common approach in examining generational differences at work, it does not allow researchers to completely distinguish between age and cohort effects (Costanza *et al*., 2017). Therefore, our findings should be carefully interpreted since causality cannot be inferred. Nonetheless, cross-sectional studies are important to provide a contemporary picture of generations at work. Longitudinal studies are still required to assess age, period and cohort effects, and isolate generational differences from other possible explanations.

Future research should focus on the importance of generational identity to explain the lack of generational differences. Generational identity can be defined as a cognitive awareness of belonging to a specific generational cohort along with the attribution of emotional and value significance to that membership (Finkelstein, Gonnerman Jr, and Foxgrover, 2001; Joshi, Dencker, Franz, and Martocchio, 2010). Future studies could gain from measuring or controlling this construct. Experimental studies, for example, allow priming of generational identity, which can influence individual work values. In addition, the absence of literature on generations in Portugal and the lack of findings supporting the Portuguese classification proposed in this study suggest that future research, particularly in Sociology, should focus on the definition and description of generations in Portugal.

CONCLUSION

Overall, we found that perceived generational differences surpass actual differences, highlighting the important role of stereotypes in work context. Generational stereotyping is perpetuated in society, it spreads to organizations and it is difficult to reduce or eliminate, which can result in tensions among workers. The greater adequacy of the Portuguese generations to predict work values, in comparison with the US classification, was not demonstrated in this study. A more in-depth study to define the Portuguese generations, considering other significant historical events, is required. We also found that age is a more accurate predictor of work values than generation, meaning that work values can possibly change with aging. This represents a great challenge for organizations: HRM should manage workers and their myriad of stereotypes about their colleagues as members of a specific generation, but managers should also understand and be aware of workers' real needs, preferences and expectations, which may change over time.

CHAPTER 3

RETAINING AN AGE-DIVERSE WORKFORCE THROUGH HRM: THE MEDIATION OF WORK ENGAGEMENT AND AFFECTIVE COMMITMENT

ABSTRACT

An aging population and an increasingly age-diverse workforce exemplify the complex challenge that age represents for most managers today. For that reason, research has shown the importance of designing and implementing human resources (HR) practices that meet age-related differences in workers' motives and needs. Drawing on social exchange theory (Blau, 1964) and signaling theory (Spence, 1973), the current study investigated a first stage moderated parallel multiple mediation model. We examined the mediating roles of work engagement and affective commitment in the relationship between age-diversity practices and turnover intention, as well as the moderating role of work centrality in these mediated relationships. Using a sample of 802 Portuguese workers, the study supported the parallel multiple mediation hypotheses. Further, the findings revealed that work centrality moderated the relationship between age-diversity practices and turnover intention via work engagement, but not via affective commitment. Age-diversity practices may motivate those workers who place less importance on work to be more engaged, which, in turn, reduces their intentions to leave the organization. Moreover, all workers, regardless of the importance that work plays in their life, are more emotionally attached to the organization and more willing to stay when there are age-diversity practices. Thus, to retain a healthy and productive age-diverse workforce, organizations should implement age-diversity practices. Empirical and practical implications are discussed.

INTRODUCTION

The population is aging across the world as birth rates decrease and longevity improves. The age structure of the workforce is also shifting, as older workers represent a growing percentage of the working population and younger workers entering the labor market are insufficient to replace workers leaving into retirement (Alley and Crimmins, 2007; European Commission, 2017). The expectations of labor and skills shortages in the short term threaten the sustainability of organizations, increasing the pressure to attract younger workers and to retain older workers (Chand and Tung, 2014; DeLong, 2004; Kulik, Ryan, Harper, and George, 2014).

These socioeconomic and political changes, combined with changes in the nature of work, have been drawing the attention of managers and researchers to an age-diverse workforce. Age-diverse workforces show a multitude of different knowledge, skills, experiences, values, and preferences that must be effectively managed in order for organizations to seize the potential of their best human capital (Backes-Gellner and Veen, 2013; Rabl and Triana, 2014). HRM can have a fundamental role in age-diversity management by creating and adapting organizational policies and practices that contribute to the alignment between workers' needs and the organization's strategy and mission (Hertel *et al*., 2013; Riach, 2009). In fact, previous investigation has shown that workers' age has an effect on the associations between perceived HR practices and job attitudes and behavior (Innocenti *et al*., 2013; Kooij, Jansen, Dikkers, and De Lange, 2010; Kooij *et al*., 2013). Researchers have been especially striving to understand how organizations can encourage older workers to stay active for longer and to postpone retirement (Armstrong-Stassen and Ursel, 2009; Bal, De Jong, Jansen, and Bakker, 2012; Herrbach, Mignonac, Vandenberghe, and Negrini, 2009; Pak *et al*., 2019; Veth, Emans, Van der Heijden, Korzilius, and De Lange, 2015). Retaining the ever greater number of older workers, who are the repositories of important knowledge and skills for organizational success, is an important strategy to minimize the looming impact of skill shortage.

Although research on these topics has been prolific, rarely has it focused on younger and middle-aged workers. In a time of shortage in the labor force, it is necessary that this retention strategy be extended to all workers, regardless of their age, to promote the sustainability of organizations, as well as to proactively tackle age barriers that can affect all workers. Instead of focusing only on late-career phases, HRM should create a workplace for successful aging at work for all workers (Boehm and Dwertmann, 2015; Zacher and Yang, 2016). In this manner, workers will have opportunities to achieve physical, social, and mental well-being in their workplace and to continue contributing positively to organizational performance, throughout their entire life (Zacher, 2015). In this paper we propose that age-diversity practices (bundles of age-sensitive HR practices) can help to retain the talent of all workers in organizations, regardless of their age.

This study investigates and demonstrates the influence of age-diversity practices in turnover intention through work engagement and affective commitment. By establishing this parallel mediation model, we contribute to the HRM literature. First, this investigation demonstrates the relevance of adjusting HR practices to an age diverse workforce as a mechanism to motivate workers to stay in the organization. Second, this study increases our knowledge of the processes underlying the relationship between age-diversity practices and turnover intention, uncovering the mediating role of work engagement and affective commitment in this relationship. Finally, our study provides further understanding on the role of work centrality in the workplace by revealing that age-diversity practices can be especially important for the engagement of those workers that attribute less importance to work.

Theoretical background and hypotheses

The growing recognition that age-diversity needs to be included in HRM has triggered organizational initiatives to welcome workers of all ages and create a sustainable work environment that supports individuals in engaging and remaining in work throughout an extended career. In particular, HR practices might be used to accommodate and leverage age differences as well as to communicate to internal and external clients that the organization is concerned with fairness and inclusion of workers. Thus, in order for all workers to reach their full potential in a sustainable manner, HRM should create, communicate, and implement practices that support and promote the development of workers of all ages, that is, age-diversity practices (Boehm, Kunze, and Bruch, 2014; Truxillo, Cadiz, and Rineer, 2017). Age-diversity practices refer to workers' perceptions that organizational practices, policies, and procedures are age-inclusive and age-sensitive, as well as accommodative to age-related changes in workers' skills, preferences, and goals (Boehm *et al*., 2014; Kunze, Boehm, and Bruch, 2013; Sousa, Ramos, and Carvalho, 2019; Walker, 1999). Building on a life-span perspective, these bundles of pro-age diversity initiatives are aimed at fostering all workers' abilities, motivation, and opportunities to contribute to the organization (Hertel *et al*., 2013; Truxillo *et al*., 2015). In addition, since age discrimination can affect workers of all ages, these practices do not target a specific age group (i.e., non-age biased), but rather are implemented to create a comprehensive age-friendly workplace where all workers fit in and are accepted and valued.

The way that HR practices are perceived and interpreted by workers may not be in line with how managers intend to implement them (Khilji and Wang, 2006). Therefore, perceived age-diversity practices are the focus of the present paper since those practices are viewed by workers as a signal of the organizations' commitment to them (Den Hartog, Boselie, and Paauwe, 2004). Age-diversity practices elicit affective reactions in individuals toward their organization as part of a sensemaking process that can be explained by social exchange theory (SET; Blau, 1964; Emerson, 1976) and signaling theory (Connelly, Certo, Ireland, and Reutzel, 2011; Spence, 1973). According to the principles of these theories, when organizational initiatives are interpreted positively by workers, they will likely reciprocate with attitudes valued by the organization, establishing high-quality exchange relationships (Coyle-Shapiro and Shore, 2007; Cropanzano, Anthony, Daniels, and Hall, 2017; Tsui, Pearce, Porter, and Tripoli, 1997). Therefore, age-diversity practices can be perceived by workers as a set of opportunities for maintaining their physical and mental health, developing skills and knowledge, and advancing their career. This individual interpretation will be a signal that the organization cares for workers' well-being and is interested in keeping the best human capital, regardless of their age, leading to greater motivation to stay in the organization.

In fact, in the last two decades literature has proposed and demonstrated that HR practices are an important mechanism to retain the best talents, identifying these practices as an important predictor of the desire to remain in the organization and turnover intentions (e.g., Allen, Shore, and Griffeth, 2003; Kehoe and Wright, 2013; Kuvaas, 2008). We expect that age-diversity practices, as a set of specific HR practices, can also be an important antecedent of turnover intention. By implementing age-diversity practices, organizations are recognizing and valuing their workers, who in response will likely show fewer turnover intentions. We propose that the relationship between age-diversity practices and turnover intention can be explained by two processes: work engagement and affective commitment. The first one is job-related and refers to a persistent, positive state of mind at work that is characterized by vigor (i.e., being charged with energy), dedication (i.e., being enthusiastically involved in work), and absorption (i.e., being fully concentrated and engrossed in work) (Bakker, Schaufeli, Leiter, and Taris, 2008; Schaufeli, Salanova, González-Romá, and Bakker, 2002). The second process is organization-related and can be defined as the psychological attachment the worker develops toward his/her organization mainly due to his/her previous work experiences (Mathieu and Zajac, 1990; Meyer and Allen, 1991).

Work engagement and affective commitment are established as two related but clearly different concepts (Hallberg and Schaufeli, 2006; Schaufeli and Bakker, 2010). Work engagement represents perceptions that are based on the work itself (i.e., one’s formal role), whereas affective commitment refers to an emotional attachment to the organization as a whole (i.e., a person’s attitude toward the organization) (Christian, Garza, and Slaughter, 2011; Hallberg and Schaufeli, 2006). In this study we propose that both concepts can mediate the influence of age-diversity practices on turnover intention, but work engagement and affective commitment have different roles in this relationship.

Work engagement

The topic of work engagement has attracted growing interest over the past two decades due to the competitive advantage it represents to organizations. In fact, engagement has become a term often used in the discourse of practitioners because of the findings that show the influence of work engagement in individual (e.g., work-related attitudes, turnover intention) and organizational outcomes (e.g., team performance, organizational performance) (Bailey, Madden, Alfes, and Fletcher, 2017; Christian *et al*., 2011; Rich, Lepine, and Crawford, 2010).

The relevance of this topic to explain organizational success prompted research to identify the antecedents of employee engagement. Besides the role of individual psychological states (e.g., self-efficacy, resilience), previous research has identified a wide range of work-related (e.g., job enrichment, work intensity) and organizational-related (e.g., leadership, HR practices) factors that predict work engagement (Bailey *et al*., 2017). Therefore, organizations are partially responsible for creating an engaged workforce.

One trend in the literature is the investigation of the impact of HRM systems on work engagement. Findings show that the implementation of HRM policies, practices, and procedures create conditions for people to fully invest their physical, cognitive, and emotional resources in their work roles (Alfes, Truss, Soane, Rees, and Gatenby, 2013a; Bal, Kooij, and De Jong, 2013; Boon and Kalshoven, 2014; Saks and Gruman, 2017). HR practices can help workers to achieve goals and provide opportunities for professional growth, development, and learning (Zaleska and De Menezes, 2007). Moreover, HR practices engender positive experiences at work by satisfying needs of autonomy, belongingness, and competence (Marescaux, De Winne, and Sels, 2013). Consequently, workers find their work more motivating and fulfilling and feel obliged to invest their personal energy in their tasks (Van den Broeck, Vansteenkiste, De Witte, and Lens, 2008). Albrecht, Bakker, Gruman, Macey, and

Saks (2015) suggest that people will become engaged with their work if there is an HRM strategy that balances job demands and resources, providing an optimal work environment. For example, HR socialization practices (e.g., orientation programs) are important to create feelings of psychological meaningfulness, safety, and availability in newcomers, which will facilitate their engagement.

One of the most-often used theories to explain how HRM can positively influence work engagement is SET (Bailey *et al.*, 2017). This theory argues that relationships between employers and employees are based on the principle of reciprocity (Blau, 1964). If workers feel that they are being valued by their organization, they are more likely to act on behalf of the organization in the form of increasing levels of engagement. Likewise, signaling theory focuses on the intentional communication of positive information about the organization (Connelly *et al*., 2011). In this case, the organization sends a signal to workers through their HRM, with the purpose of communicating positive attributes of the signaler (i.e., the organization). In exchange, the organization will benefit by some action from the receiver (i.e., the worker) that, in these circumstances, refers to high levels of energy, enthusiasm, and immersion in their work.

Similarly, we argue that age-diversity practices are an important predictor of work engagement by showing that the organization is focused on maintaining a healthy and productive workforce. Age-diversity practices provide all workers, regardless of their age, with resources that facilitate their job tasks. For example, work should be adjusted to workers' levels of functioning, which can change over time. This adjustment implies changes in job design according to workers' needs throughout life, which may comprise decreasing work demands, such as the reduction of workload, or increasing job resources, such as job enrichment. Also, age-diversity practices can help individuals to develop the skills and knowledge needed to achieve a good performance, driving workers to focus their energy on their work. Training programs are beneficial to the sense of competence of individuals if these activities are age-sensitive and respond to specific needs. This means that a younger worker could benefit, for instance, from training in soft skills (e.g., communication, conflict management), while for an older worker it might be more important to receive training about a new software.

The organization that implements such practices communicates an age-inclusive strategy that accommodates age-related changes in goals, needs, and preferences. Age-diversity practices may be a signal to workers that the organization is trustworthy and willing to protect their resources, whereas the lack of these practices may signal that the organization is not concerned with the workers' well-being and retention. According to SET, this strategy can be interpreted by workers as an investment of the organization in a long-term relationship in which there is continuous trade of benefits and resources from the organization (age-diversity practices) for an individual effort (work engagement) (Cropanzano and Mitchell, 2005; Cropanzano *et al*., 2017). If workers perceive that there are age-diversity practices in their organization, they will be inclined to help the organization, and thus invest more energy and effort to perform their tasks, and be more involved and fully concentrated in their work.

While age-diversity practices will likely contribute to an engaged workforce, work engagement is expected to influence turnover intentions. Turnover intention refers to a conscious and planned willingness of the worker to leave his or her current organization (Griffeth, Hom, and Gaertner, 2000; Tett and Meyer, 1993). Previous research has consistently demonstrated that work engagement influences positively the degree to which individuals intend to remain in the organization (e.g., Halbesleben, 2010; Marescaux *et al*., 2013; Schaufeli and Bakker, 2004). Individuals who manifest increasing levels of energy, and involvement in their work and feel passionate about what they do are more willing to stay in the organization. Thus, work engagement acts as a motivational process that might lead to a growing desire to be loyal to the organization, showing a low tendency to leave the organization.

By implementing age-diversity practices, organizations communicate to workers that they are willing to empower, develop, and manage them according to their needs and goals, regardless of their age. As repayment for the resources they receive from the organization, workers show their willingness to dedicate their efforts and abilities to the work task, and to remain in the organization. For instance, a fair performance evaluation creates an environment in which all workers feel appreciated and valued, which increases workers’ engagement in the task and reduces their turnover intention. On the other hand, the lack of age-diversity practices can be seen as an underinvestment of the organization in the relationship with their workers. In the face of an unbalanced relationship in which their effort surpasses the benefits received from the organization, workers will likely feel less involved, loyal, enthusiastic, and empowered at work, and more likely to leave the organization (Tsui *et al*., 1997).

Building upon the theories of social exchange and signaling, we argue that age-diversity practices, which are age-sensitive HR practices, are positively related to work engagement that, in turn, will be negatively linked to turnover intention. Therefore:

> Hypothesis 1: Work engagement mediates the relationship between age-diversity practices and turnover intention.

Affective commitment

While work engagement has attracted considerable attention in the latest literature, the topic of affective commitment has a long and rich tradition in the field of HRM. Affective commitment has the strongest and most consistent relationship with organizational citizenship behavior, absenteeism, turnover, and performance (Meyer *et al.*, 2002; Solinger, van Olffen, and Roe, 2008), compared to continuance commitment and normative commitment. Due to its importance, theoretical and empirical research has explored the causes and trends in the development of affective commitment (Gao-Urhahn, Biemann, and Jaros, 2016). The key antecedents of affective commitment are well-known in the literature, including demographic characteristics (e.g., age, education), individual variables (e.g., self-efficacy, work values), and work-related aspects (e.g., HR practices, perceived organizational support) (Bal *et al.*, 2013; Mathieu and Zajac, 1990; Mercurio, 2015; Meyer *et al*., 2002). However, studies have shown that work-related factors continue to be the most important predictors of affective commitment, among which HR practices have stood out (Mercurio, 2015).

Research has demonstrated that HR practices are positively related to high levels of affective commitment (e.g., Gellatly, Hunter, Currie, and Irving, 2009; Kooij and Boon, 2018; Morrow, 2011). According to the principles of SET and signaling theory, when workers perceive that HR practices are in place, they interpret these as a signal that the organization cares about and invests in them, which elicits individual affective reactions (Whitener, 2001). Workers will then show a strong desire to remain as a member of the organization while working hard to achieve organizational goals (Arthur, 1994).

For instance, Kooij and colleagues (2010) found that workers’ perceptions of the availability of development (e.g., promotion, job enrichment) and maintenance HR practices (e.g., participation, rewards and benefits) were important to explain affective commitment. Furthermore, their findings demonstrate that the utility of HR practices changes with age, as some HR practices become more important to elicit affective commitment in old age (e.g., flexible work schedules), whereas others become less important (e.g., promotion). Based on these results, Kooij and colleagues (2010) argue that managers should implement HR practices in their organization for workers of all ages.

When organizations implement age-supportive practices, that recruit, develop, recognize, and reward workers of all ages, they promote and reinforce commitment. Thus, we propose that age-diversity practices will have a positive impact on affective commitment. Through initiatives that facilitate the acceptance of people from different age groups, age-diversity practices can help to increase emotional attachment to the organization by providing workers with a sense of support and fair treatment. Also, age-diversity practices can enhance workers' perceptions of career planning and promotion opportunities within the organization. For example, the implementation of a performance evaluation system that is age-sensitive will increase the perception of justice among colleagues and attenuate negative age stereotypes within the organization such as the belief that older workers are less motivated and less productive than younger workers (Posthuma and Campion, 2009). Thus, it is important for organizations to create a sense of inclusion and appreciation of diversity, signaling workers of all ages that they are welcome and valued in the organization, which will result in higher levels of affective commitment.

Workers who are affectively committed to their organization will be less disposed to leave, because they feel the desire to reciprocate and want to stay and contribute to organizational success. The relationship between affective commitment and turnover intention and behavior is already well established in the literature (e.g., Cotton and Tuttle, 1986; Holtom, Mitchell, Lee, and Eberly, 2008; Mercurio, 2015; Mowday, 1998; Somers, 1995). Empirical research shows consistently that organizations that aim to retain their talents have to increase the commitment of the workforce. We therefore also expect that affective commitment is an important predictor of turnover intention.

The perception that there are age-diversity practices, which meet age-related needs, preferences and goals, convey the organizations' concern for the individuals' well-being, which creates a greater obligation of workers to return the investment. Workers will likely feel more identified with and involved in the organization, and be more inclined to stay in the organization. However, if workers feel HR practices are not accessible to individuals of all ages, they will likely show a decreasing level of emotional attachment to and involvement in the organization that might result in a greater desire to leave the organization. Therefore, we propose:

> Hypothesis 2: Affective commitment mediates the relationship between age-diversity practices and turnover intention.

The moderating role of work centrality

The importance of work to the human being has been a topic debated in disciplines ranging from economics to psychology, from sociology to medicine. The assumption that work plays a fundamental role in individuals' life has received empirical support, leading researchers to establish the concept of work centrality (Mannheim, Baruch, and Tal, 1997; MOW, 1987). Work centrality is defined as the beliefs that individuals have about the value and importance of work in their lives, regardless of one's current job (Hirschfeld and Feild, 2000; Paullay, Alliger, and Stone-Romero, 1994). Individuals who have high work centrality perceive work as a main component of their life, which is related with more positive attitudes at work such as organizational citizenship behaviors (Uçanok and Karabatı, 2013) or relational psychological contracts (Bal and Kooij, 2011), and outside of it, such as work-family conflict (Michel, Kotrba, Mitchelson, Clark, and Baltes, 2011). Indeed, the centrality attributed to work defines, among other things, choices of careers and educational paths, job satisfaction, and organizational performance (Diefendorff, Brown, Kamin, and Lord, 2002; Harpaz, Honig, and Coetsier, 2002). Higher levels of work centrality are also associated with increased work engagement and commitment, and reduced turnover intention (Bal and Kooij, 2011; Hirschfeld and Feild, 2000; Kanungo, 1982; Mannheim *et al*., 1997). For example, a study from Arvey, Harpaz, and Liao (2004) revealed that lottery winners who considered work as a core component of their lives were less likely to quit working than those who viewed work as less important in their lives.

These findings reflect the relevance of examining the impact of individuals' work centrality on various organizational outcomes, as well as of understanding the factors that might influence it. Previous research has found that demographic (e.g., gender, education) and psychological characteristics (e.g., conscientiousness, need for achievement), organizational context (e.g., job characteristics, work experiences), and institutional conditions (e.g., cultural values, societal norms) influence the centrality of work in people's lives (Harpaz and Fu, 1997; Mannheim *et al*., 1997; Sharabi and Harpaz, 2010). One of the most important lines of research has been questioning what the role is of organizations in increasing the work centrality of individuals. In a longitudinal study Sharabi and Harpaz (2010) found that individuals who experienced expressive work events (autonomy, interest, variety, and responsibility) and career development events (promotion, advancement to managerial position and qualifications) revealed higher levels of work centrality than those who did not experience those events. These findings suggest that for workers to attach more importance to work it is important for organizations to implement HR practices that create opportunities for promotion and development (e.g., access to training), as well as to increase the autonomy, interest, and responsibility of the job.

We expect that people with low work centrality perceive age-diversity practices as a motivational mechanism to invest in building a mutual relationship with the employer, which will result in higher work engagement and affective commitment. Individuals with low work centrality attach little value to work, and the presence of age-diversity practices can trigger an increased sense of obligation for workers to invest more energy, be more enthusiastic and immersed in their work, and become more involved with the organization (Hirschfeld and Feild, 2000; Sharabi and Harpaz, 2010). Conversely, since people with high work centrality already value work, they are less responsive to various work experiences such as age-diversity practices than are individuals with low work centrality. Indeed, individuals that consider work as a core component of their life are already more predisposed to invest time and energy in their relationship with the organization.

We argue that age-diversity practices are especially important to the work engagement and affective commitment of those workers who see work as less central in their lives. Therefore, we propose the following hypotheses:

> Hypothesis 3a: Work centrality moderates the relationship between age-diversity practices and work engagement, such that the relationship is stronger for those with low work centrality than for those with high work centrality.
>
> Hypothesis 3b: Work centrality moderates the relationship between age-diversity practices and affective commitment, such that the relationship is stronger for those with low work centrality than for those with high work centrality.

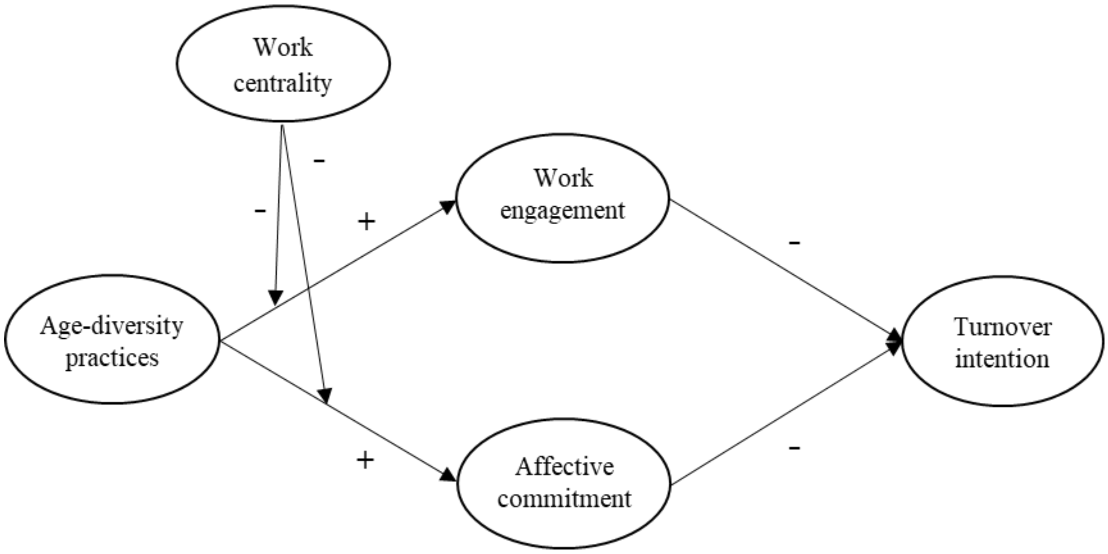
Finally, we assert that work centrality will also moderate the indirect effects of age-diversity practices on turnover intention through work engagement and affective commitment. When work plays a minor role in the lives of people, these practices are especially important to retain workers of all ages because they create a long-term relationship between the employer and the worker based on trust and loyalty, through two different mechanisms: age-diversity practices encourage workers to feel energized, enthusiastic, engrossed in what they do, and therefore are more inclined to stay in the organization, even if work is unimportant in their life (Bal and Kooij, 2011; Cropanzano and Mitchell, 2005); also, such practices create an emotional bond between the worker and the organization, which is particularly important for individuals with low work centrality, and results in the individual's desire to remain in the organization (Kooij *et al*., 2010; Mannheim *et al*., 1997).

Thus, we argue that when individuals attach little value to work, the effect of age-diversity practices on turnover intention via work engagement and affective commitment will be greater than when people consider work as central in their lives. Therefore, we hypothesize that:

> Hypothesis 4a: The indirect relationship between age-diversity practices and turnover intention via work engagement is moderated by work centrality, such that the indirect association is stronger for those with low work centrality than for those with high work centrality.
>
> Hypothesis 4b: The indirect relationship between age-diversity practices and turnover intention via affective commitment is moderated by work centrality, such that the indirect association is stronger for those with low work centrality than for those with high work centrality.

The conceptual model of the study is represented in Figure 3.1.

Figure 3.1. Proposed conceptual model



METHOD

Sample and procedures

The data used in the present study were part of a larger survey about work attitudes of an age-diverse workforce in Portugal. Participants took about 15 minutes to complete the questionnaire that had both an online and a paper and pencil version. Several organizations from different industries and both private and public sectors were invited to participate in this study. The research team sent an e-mail to the HR department of each of these organizations explaining the purpose of the study and asking for their collaboration by disseminating the questionnaire among their workers. Data were also collected by a group of students enrolled in undergraduate and master programs at ISCTE – University Institute of Lisbon, through their personal contacts and in their workplaces and internship places. Students participated in this research as part of their academic training and received credits for doing so.

The sample consisted of 802 Portuguese workers, aged between 18 and 72 years old (*M* = 38.42, *SD* = 12.82). Of the total respondents, 55.6% were female, 56.4% completed higher education, and 29.5% graduated from high school. About 41.8% had worked for more than 20 years, and 28.3% for less than five years. Most of the participants worked in the private sector (63.5%). Fifteen percent of the participants worked in the health and social support sector, 13.1% worked in sales, and 12.6% in education and training. About 49% of the respondents had been in the organization for a maximum of five years, and 23.1% were in the organization for more than 20 years.

Measures

All participants were fluent in Portuguese, which required the questionnaire to be developed in the Portuguese language. The work centrality scale was originally developed in the Portuguese language by Lobo, Gonçalves, and Tavares (2016). The work engagement scale had already been adapted and validated for Portugal (Sinval, Pasian, Queirós, and Marôco, 2018), as had the affective commitment scale (Nascimento, Lopes, and Salgueiro, 2008). For age-diversity practices and turnover intention, the translation-back-translation process (Brislin, 1970) was followed, taking into consideration the recommendations of van de Vijver and Hambleton (1996). Unless otherwise noted, participants answered on a six-point agreement scale ranging from 1 (strongly disagree) to 6 (strongly agree).

Age-diversity practices

Age-diversity practices were measured using a seven-item scale (adapted from Boehm *et al.*, 2014; Sousa *et al.*, 2019). This scale assesses the extent to which workers perceive an inclusive and non-discriminatory treatment of workers of all ages regarding age-sensitive HR practices. A list of the statements is presented in the Appendix B. Example items include: “Employees are developed (i.e., training) and advanced without regard to the age of the individual” and “Experience, skills, and knowledge of workers are recognized, irrespective of their age”. The Cronbach’s alpha showed a good internal reliability (α = 0.87).

Work centrality

Work centrality was assessed using ten items from Lobo and colleagues (2016). It refers to people’s beliefs regarding the degree to which the work role is central in their lives. A list of the sentences is provided in the Appendix B. A sample item is: “The most important things that happen to me involve my work”. The internal consistency coefficient for this scale was good (α = 0.86).

Work engagement

Work engagement was measured using the short version of the Utrecht Work Engagement Scale with nine items (UWES-9) (Schaufeli, Bakker, and Salanova, 2006; Sinval *et al.*, 2018). The scale assesses a positive, fulfilling work-related state of mind (Schaufeli *et al.*, 2002). A list of the items is available in the Appendix B. An example item is: “I am enthusiastic about my job”. Participants indicated how often they felt the way described in the statements, answering on a seven-point rating scale that ranges from 0 (never) to 6 (always). The scale revealed very good internal consistency (α = 0.94).

Affective commitment

Workers’ affective commitment was assessed using a six-item measure from Allen and Meyer (1990; Nascimento *et al.*, 2008). The scale captures workers’ emotional attachment to, identification with, and involvement in the current organization. A list of the statements is presented in the Appendix B. Example items are: “This organization has a great deal of personal meaning for me” and “I do not feel like ‘part of the family’ at my organization” (reverse). The Cronbach’s alpha showed good internal consistency (α = 0.84).

Turnover intention

Turnover intention was assessed through a three-item scale. It refers to an individual desire to leave the organization that includes thinking frequently about it, actively seeking a new job in a different organization, and thinking about leaving in the following year. One item was adapted from Landau and Hammer (1986): “I am currently searching for a job in another organization”. Two items were developed: “I often think about leaving this organization” and “About my future in this organization, I think of leaving within the next year”. The Cronbach’s alpha revealed good internal reliability ($\alpha = 0.84$).

Control variables

Age, measured in years, was included in the model as a control variable. Previous research shows that age may affect perceived HR practices (e.g., Kooij *et al*., 2010), work engagement (e.g., Kim and Kang, 2017), organizational commitment (e.g., Mathieu and Zajac, 1990), and turnover intention (e.g., Cotton and Tuttle, 1986).

Analytical Strategy

A Confirmatory Factor Analysis (CFA) was conducted to validate the full measurement model with the proposed five factors of the study: age-diversity practices, work centrality, work engagement, affective commitment, and turnover intention. Moderated mediation models were tested through Structural Equation Modeling (SEM). The analyses were conducted with Analysis of Moment Structures (AMOS, v. 25; Arbuckle, 2017). To test direct and indirect effects, bootstrapping was used to create confidence intervals (CIs) (Cheung and Lau, 2008).

In SEM, to define the products that represent the latent interaction (moderation), the matched-pair strategy of Marsh, Wen and Hau (2004) was followed. This strategy is appropriate for this model considering the great number of indicators involved in the moderation, which can result in an under-identified model (Cortina, Chen, and Dunlap, 2001). First, all the indicators of age-diversity practices (independent variable) and work centrality (moderator) were standardized. Second, the multiplicative terms of the latent interaction factor were created, by matching the items in terms of their quality. Seven matched-pair products were created as age-diversity practices had seven items and work centrality had ten. All seven indicators of age-diversity practices were matched with the best seven indicators of work centrality: the best indicator of age-diversity practices’ scale was matched with the best indicator of work centrality’s scale (Marsh *et al*., 2004). Third, we proceeded with the test of the research hypotheses.

Measurement model and common method variance

The measurement model was evaluated based on multiple goodness-of-fit measures: the chi-square test (χ^2), the normed chi-square (χ^2 / df), the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean squared error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Criteria for good fit of the model to the data were considered as a significant chi-square statistic and a normed chi-square below the cutoff of 3 (Hair, Black, Babin, and Anderson, 2010). Also, for CFI and TLI, values greater than 0.90 indicate an adequate model fit (Hair *et al*., 2010). The RMSEA with values below 0.08 are assumed to be acceptable, and below 0.05 are considered good (Hu and Bentler, 1999). Values of the SRMR below 0.08 are generally considered as reflecting a good fit of the model (Hu and Bentler, 1999). The measurement model reached acceptable fit, χ^2 (*df*) = 1545.44 (528), $p < .001$, $\chi^2 / df = 2.93$, CFI = 0.94, TLI = 0.93, RMSEA = 0.05, SRMR = 0.06. This five-factor measurement model was compared with a range of models with fewer factors, as showed in Table 3.1.

Table 3.1. Fit indices for measurement model comparisons

Models	Five-Factor – Model 1 (Full measurement model)	Model 2 [a)]	Model 3 [b)]	Model 4 [c)]	Model 5 [d)] (Harman's single factor)
χ^2 (df)	1545.44 (528)	1979.56 (532)	2560.91 (535)	3520.73 (537)	4029.53 (538)
χ^2 / df	2.927	3.721	4.787	6.556	7.490
CFI	0.94	0.92	0.88	0.83	0.80
TLI	0.93	0.91	0.87	0.81	0.78
RMSEA	0.05	0.06	0.07	0.08	0.09
SRMR	0.06	0.07	0.07	0.09	0.09
χ^2_{dif} (df)		434.12 (4)***	1015.47 (7)***	1975.29 (9)***	2484.09 (10)***

Notes: N = 802; χ^2 – chi-square; df – degrees of freedom; χ^2/df – normed chi-square; CFI – comparative fit index; TLI – Tucker–Lewis index; RMSEA – root mean square error of approximation; SRMR – standardized root mean square residual; χ^2_{dif} – chi-square difference.

*** $p < .001$

a) Work engagement and Affective commitment combined into a single factor.

b) Work engagement, Affective commitment, and Turnover intention combined into a single factor.

c) Age-diversity practices and Work centrality combined into one factor; Work engagement, Affective commitment, and Turnover intention combined into a second factor.

d) The five factors combined into a single factor.

Since there was a large correlation between work engagement and affective commitment (latent $r = 0.75$) (Cohen, 1992), a four-factor model (model 2) in which these two constructs were combined into a single factor was also examined. Model 2 showed an acceptable fit, χ^2 (df) = 1979.56 (532), $p < .001$, $\chi^2 / df = 3.72$, CFI = 0.92, TLI = 0.91, RMSEA = 0.06, SRMR = 0.07, but still a significantly poorer fit than the five-factor model (χ^2_{dif} (df) = 434.12 (4), $p < .001$). The results also showed that the hypothesized five-factor model yielded a better fit than any alternative three- or two-factor model.

To address concerns of common method variance (Podsakoff *et al*., 2003), the Harman's single factor test and the common method latent factor were tested. As shown in Table 3.1, a single-factor model revealed a poor fit to the data. Also, the goodness-of-fit of the full-measurement model and the model with the common method latent factor were compared by calculating CFI-difference (Byrne, 2016). The difference between model 1 (full-measurement model) and the six-factor model was 0.021, which was below the rule of thumb of 0.05 suggested by Bagozzi and Yi (1990). These results support that common method variance did not influence the validity of the factor structure.

Finally, following the recommendations of Richter, Sinkovics, Ringle, and Schlägel (2016), the potential effects of multicollinearity in the full-measurement model were also examined. The variance inflation factor (VIF) ranged between 1.33 and 1.79, which is below the rule of thumb of 5 (Hair *et al*., 2013). The highest value of condition index was 12.49, which is lower than the threshold value of 30 (Cohen, Cohen, West, and Aiken, 2003).

The data were collected from a single source (i.e., workers) using self-reported measures. Note that as the focus of this study was workers' perceptions of age-diversity practices and their work-related outcomes, it was not adequate to obtain the information from alternative sources such as colleagues or supervisors.

RESULTS

Table 3.2 presents the descriptive statistics of the variables under study. As anticipated, age showed significant correlations with all constructs: it was negatively related to age-diversity practices ($r = -0.09$, $p < .05$) and turnover intention ($r = -0.36$, $p < .001$), and positively associated with work centrality ($r = 0.10$, $p < .05$), work engagement ($r = 0.15$, $p < .001$), and affective commitment ($r = 0.34$, $p < .001$). All the variables in the study were significantly correlated.

Table 3.2. Construct means, standard deviations, correlations, and reliabilities

	M	SD	1	2	3	4	5	6
1. Age	38.42	12.82						
2. Age-diversity practices	3.82	1.13	-0.09*	(0.87)				
3. Work centrality	2.96	0.86	0.10*	0.38***	(0.86)			
4. Work engagement	4.33	1.28	0.15***	0.56***	0.57***	(0.94)		
5. Affective commitment	4.00	1.14	0.34***	0.58***	0.66***	0.75***	(0.84)	
6. Turnover intention	2.38	1.43	-0.36***	-0.40***	-0.34***	-0.56***	-0.79***	(0.84)

Note: N = 802. Reliability coefficients are reported in parentheses.

* $p < .05$ *** $p < .001$ (two-tailed test).

Structural model

The hypothesized moderated mediation model showed an acceptable fit, χ^2 (df) = 2226.42 (821), $p < .001$, $\chi^2 / df = 2.71$, CFI = 0.92, TLI = 0.92, RMSEA = 0.05, SRMR = 0.06. Hypothesis 1 predicted that work engagement mediated the relationship between age-diversity practices and turnover intention. As shown in Table 3.3, results revealed that the indirect effect was significant (B = -0.15, 95% Boot CI = -0.25; -0.07), providing support for Hypothesis 1. Findings also supported Hypothesis 2, which proposed that affective commitment would mediate the relationship between age-diversity practices and turnover intention (B = -0.35, 95% Boot CI = -0.48; -0.24). The more age-diversity practices were perceived by workers, the more engaged in their work and committed to their organization they were, which in turn decreased turnover intention. The direct effect became not significant with the introduction of the two mediators (B = -0.12, $p > .05$, 95% Boot CI = -0.32; 0.07), suggesting a full mediation (Preacher and Hayes, 2004). It is also important to highlight that affective commitment (B = -0.47, 95% Boot CI = -0.61; -0.34) was a stronger predictor of turnover intention than work engagement (B = -0.26, 95% Boot CI = -0.40; -0.12).

Hypothesis 3a stated that work centrality moderated the relationship between age-diversity practices and work engagement. Results supported the hypothesis (B = -0.22, $t = 3.89$, $p < .001$, 95% Boot CI = -0.36; -0.10). Therefore, post-hoc probing was conducted to test the main effect of age-diversity practices on work engagement at specific levels of work centrality. The interaction effect was plotted using one standard deviation below (-1SD) and above (+1SD) the mean of work centrality (Aiken and West, 1991; Preacher, Curran, and Bauer, 2006).

Table 3.3. Multiple regression results for Work engagement, Affective commitment, and Turnover intention

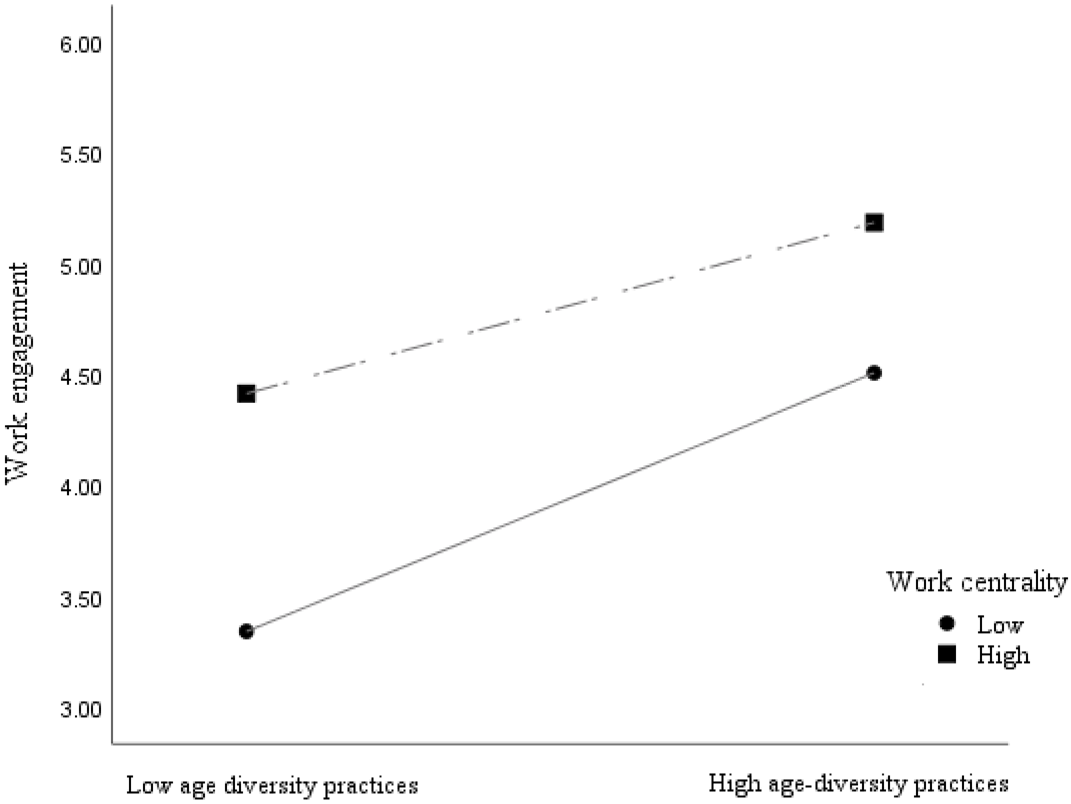
Variables	Work engagement			Affective commitment			Turnover intention		
	Coefficient	SE	95% CI	Coefficient	SE	95% CI	Coefficient	SE	95% CI
Independent variables									
Age-diversity practices	0.58***	0.06	0.48, 0.69	0.75***	0.05	0.65, 0.85	-0.62***	0.08	-0.79, -0.47
Work centrality	0.75***	0.05	0.65, 0.85	1.09***	0.09	0.91, 1.27			
Interaction									
Age-diversity practices x Work centrality	-0.22***	0.06	-0.36, -0.10	-0.13	0.07	-0.30, 0.03			
Mediator									
Work engagement							-0.26**	0.07	-0.40, -0.12
Mediator									
Affective commitment							-0.47***	0.07	-0.61, -0.34
Direct effect									
Age-diversity practices							-0.12	0.10	-0.32, 0.07
Indirect effect (H1)									
Age-diversity practices							-0.15**	0.04	-0.24, -0.07
Indirect effect (H2)									
Age-diversity practices							-0.35***	0.06	-0.48, -0.24

Note: N = 802. All estimates for the moderated mediation were also tested for significance using bias-corrected (BC) confidence interval from 5,000 bootstrap samples

** $p < .01$ *** $p < .001$

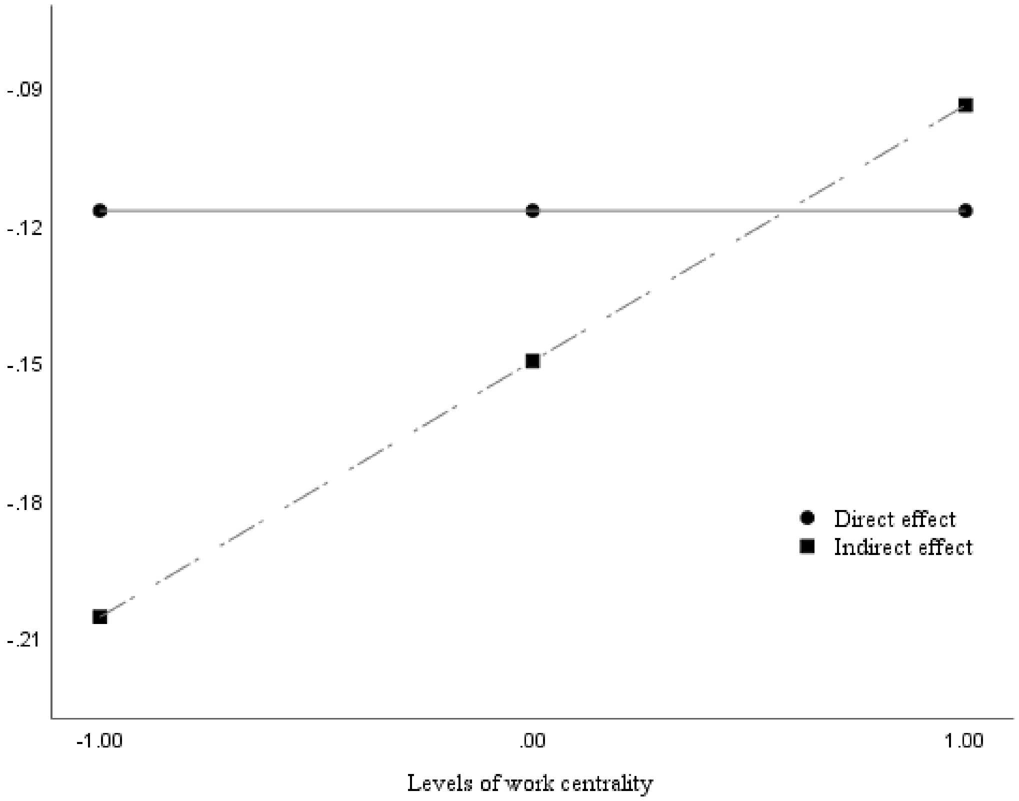
As can be seen in Figure 3.2, the relationship between age-diversity practices and work engagement is stronger when work centrality is low (B = 0.80, *t* = 9.30, *p* < .001, 95% Boot CI = 0.64; 0.98) and weaker when work centrality is high (B = 0.36, *t* = 4.09, *p* < .001, 95% Boot CI = 0.19; 0.54). Hence, these results supported Hypothesis 3a. Hypothesis 3b proposed that work centrality would moderate the relationship between age-diversity practices and affective commitment. Unexpectedly, this hypothesis was not supported by the findings (B = -0.13, *t* = -1.75, *p* = .08, 95% Boot CI = -0.30; 0.03).

Figure 3.2. Moderating effect of work centrality on the relationship between age-diversity practices and work engagement



Hypothesis 4a posited that work centrality would moderate the indirect relationship between age-diversity practices and turnover intention via work engagement. The significant index of moderated mediation was 0.06 (95% CI = 0.02; 0.12), showing that as work centrality decreases, the indirect effect of age-diversity practices on turnover intention via work engagement increases (Figure 3.3). The simple slopes test provides further support for Hypothesis 4a (B_{low} = -0.20, *t* = -3.40, *p* = .001, 95% Boot CI = -0.33; -0.10; B_{high} = -0.09, *t* = -2.63, *p* = .001, 95% Boot CI = -0.19; -0.04).

Figure 3.3. The conditional indirect effect of age-diversity practices on turnover intention via work engagement



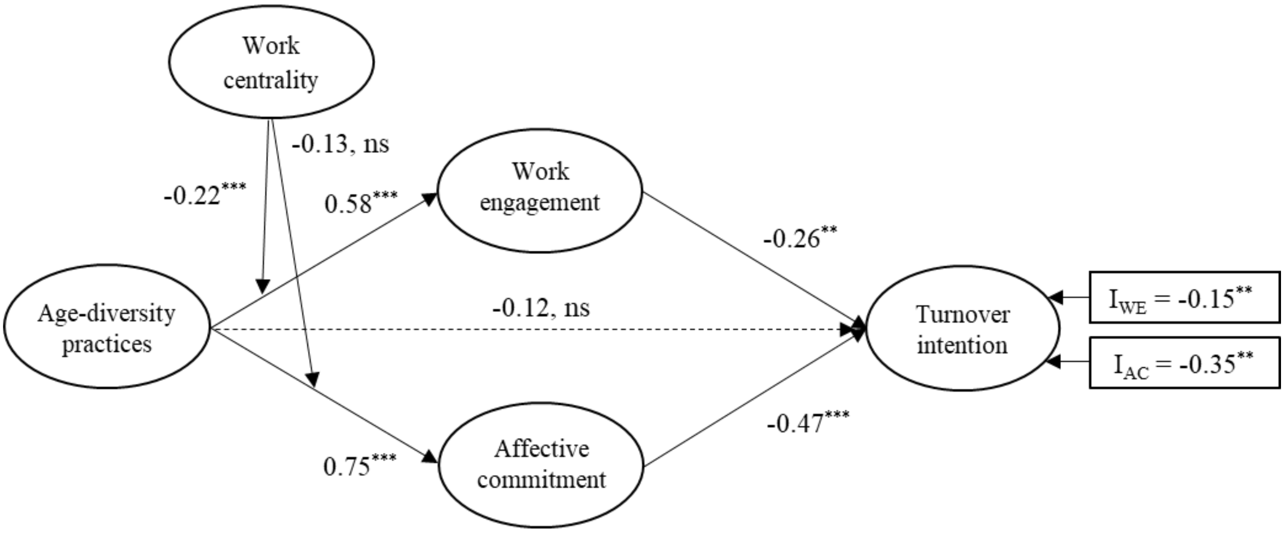
Finally, hypothesis 4b stated that the indirect relationship between age-diversity practices and turnover intention via affective commitment is moderated by work centrality. Since there is no significant moderation effect of work centrality on the relationship between age-diversity practices and affective commitment, this hypothesis was also not supported. The index of moderated mediation was 0.06 (95% CI = -0.02; 0.15).

The results of the moderated mediation model are depicted in Figure 3.4. The predictors of turnover intention included in this model explain 49.7% of its variance.

DISCUSSION

A great challenge for contemporary organizations is how to attract, recruit, and retain workers, and specifically how to keep them motivated and productive without compromising their health. The present study examined the mediating effects of work engagement and affective commitment in the relationship between age-diversity practices and turnover intention, as well as the moderating role of work centrality in these mediated relationships.

Figure 3.4. Results of the moderated parallel multiple mediation model



Note: (I_{WE}) Indirect effect of age-diversity practices on turnover intention via work engagement;
(I_{AC}) Indirect effect of age-diversity practices on turnover intention via affective commitment
ns: not significant; ** $p < .01$ *** $p < .001$

The findings show that both work engagement and affective commitment mediated the relationship between age-diversity practices and turnover intention. Although previous research has already demonstrated the relevance of such variables as determinants of the intention to continue in the organization (e.g., Allen *et al*., 2003; Bal *et al*., 2013; Marescaux *et al*., 2013), this study demonstrates the value of implementing a strategy of age-diversity management to motivate workers of all ages.

In a context of an age diverse workforce, HR practices that are sensitive to individuals' aging can be especially important to retain the best talents. Age-diversity practices are a set of flexible practices that can support workers throughout the life span, by accommodating and leveraging age differences (Truxillo *et al*., 2015; Walker, 1999). Age-diversity practices can promote work engagement, a form of job-focused involvement that encourages workers to stay in the organization. Workers who perceive that there are age-diversity practices in their organizations are more energetic, immersed and dedicated to their work, and thus show less intention to leave the organization. Since workers feel accepted and valued at work, regardless of age, they can invest all their energy in their job tasks. Work will engender positive experiences that individuals will seek to maintain by staying in the organization (Alfes *et al*., 2013a).

Age-diversity practices can also foster affective commitment, a form of involvement with the organization as a whole. Workers are more emotionally attached to the organization when employers offer good career prospects and opportunities for skill development, provide job security, and promote the necessary adaptations in the work, thereby making workers less likely to leave the organization (Morrow, 2011).

These findings corroborate SET and signaling theory (Blau, 1964; Connelly *et al.*, 2011), which postulate that workers view HR practices as an indicator of the organization's investment in them and as recognition of their contributions, triggering the sense of obligation to reciprocate through positive attitudes. In this balanced worker-organization relationship, there is a comprehensive consideration of an individual's well-being and a mutual investment from both parties (Blau, 1964; Tsui *et al.*, 1997). Conversely, in an underinvestment relationship, the worker is fully committed with the organization but the organization reciprocates with essentially monetary rewards (Tsui *et al.*, 1997). If a worker perceives that organizational practices are not accessible to all workers, he or she will experience injustice or discrimination, or perceive that others are experiencing it, and feel a lack of commitment from the organization. These workers will be more likely to leave that specific organization.

Furthermore, we found that age-diversity practices had a stronger effect on turnover intention via affective commitment than via work engagement. As mentioned above, affective commitment refers to an emotional bond between the individual and the organization, whereas work engagement is an attachment toward the specific job. Since workers view HR practices as a form of organizational support, it is more likely that they will return this investment through increasing involvement with the organization (Allen *et al.*, 2003). Therefore, age-diversity practices are perceived as age-supportive practices that encourage workers to embrace the organizational membership as an important part of their identity.

Work centrality moderated the indirect effect of age-diversity practices on turnover intention via work engagement but not via affective commitment. The results suggest that individuals who assigned less importance to work understood age-diversity practices as a mechanism to create an inclusive and supportive workplace where a worker can perform successfully their tasks. For instance, a 40-year-old worker who attaches less value to work may perceive that an adjustment in his or her work arrangement (e.g., working from home, compressed hours due to parental responsibilities) is a long-term investment by the organization. This worker reciprocates by putting all of his or her effort into the job, and trusting that such vigor, dedication, and absorption will continue to be valued by the organization, which motivates the desire to stay (Bal and Kooij, 2011). Age-diversity practices are less important for people who have higher work centrality because work is something to be engaged in for its own sake. If a person sees work as a core component of his or her life and is energetic, passionate about, and immersed in the job, he or she might give less importance to the organization’s practices as a motivation to stay in the organization.

Contrary to what one might expect, work centrality did not moderate the mediated effect of age-diversity practices on turnover intention through affective commitment. This suggests that workers, regardless of the role that work plays in their life, perceive age-diversity practices as a signal that the organization is investing in them and reciprocate through increasing their levels of affective commitment, and are more willing to stay in the organization. An individual who assigns minor importance to work in his/her life can interpret the implementation of age-diversity practices as a sign that the organization intends to retain the best talents. Similarly, those individuals who consider work as a crucial part of their life also feel valued by the organization that develops age-diversity practices and, consequently, show more emotional attachment to the organization (Mannheim *et al*., 1997). Thus, regardless of the level of work centrality, age-diversity practices lead workers to feel committed to the organization they belong to, and as a result, to stay. A possible explanation for the absence of the moderation effect is the target of the individual’s attitude in work centrality. While work centrality refers to the domain of the relationship between the individual and the work in general, the relationship between age-diversity practices, commitment, and turnover focuses on the individual-organization bond. This suggests that the attachment of workers to the organization is of great importance for their retention.

The present study contributes to the HRM literature by revealing how organizations can motivate their workers of all ages, that is, by exposing the underlying processes through which age-supportive HR practices negatively affect turnover intention. At the same time, the findings also show when these processes (i.e., work engagement and affective commitment) work, i.e., what is the role of work centrality in these relationships. Despite work centrality being an individual and relatively stable belief about work, organizations can play an important role in the engagement of those individuals who attach less importance to work, with the implementation of age-diversity practices. Such practices are a novel construct in the literature and the findings suggest that they are important to promote a healthy and effective age-diverse workforce while encouraging individuals to invest in the relationship with their organization.

The findings also underscore the need for age-diversity management. Most research on the aging workforce focuses on implementing organizational practices that motivate older workers to stay at work (Pak *et al*., 2019; Truxillo *et al*., 2015). However, as claimed by the life-span perspective, younger and middle-aged workers may have different values, needs, motives, and goals (Kooij *et al.*, 2011) that organizations should also meet to retain their knowledge and skills. Further, younger and middle-aged workers are tomorrow's older workers, and thus organizational practices to support people during their career are critical. Age-diversity practices should therefore be implemented to motivate workers of all ages instead of targeting only the group of older workers.

In addition, older workers may not be a homogenous group, as important intra-individual changes occur during later adulthood (Kanfer and Ackerman, 2004). Since adult development and work experiences throughout life influence motivational patterns at work, organizational practices should be flexible and inclusive.

This study also extends previous results beyond the Anglo-Saxon cultural contexts, as data were collected in Portugal. The Portuguese context is especially suited to understand the impact of age-diversity practices in work attitudes in light of the rapid aging of the workforce in that country.

Implications for practice

The findings of this study offer practical contributions with managerial implications. First, age-diversity practices have the potential to increase work engagement and affective commitment, which can lead to higher levels of retention. The empirical evidence provided by this study may help employers and managers to go beyond a non-discrimination policy toward a strategy focused on capitalizing age diversity, which values workers of all ages.

Indeed, age-diversity practices communicate to workers what the opportunities for development and advancement are in the organization, according to individuals' preferences, goals, and needs. A 55-year-old worker might be motivated to continuously develop his or her skills and knowledge that, when recognized, will facilitate career progression (i.e., promotion to a senior position). A different worker of the same age might have increased generativity motives and show preferences for teaching, training, and sharing skills with younger workers or newcomers (Kooij and Van de Voorde, 2011). The recognition of these experience and skills can prompt internal mobility, placing the worker in a department or project in which he or she will have the opportunity to transfer knowledge to others. Also, age-diversity practices can meet the needs of workers who for various reasons (e.g., age-related changes, work injuries, health problems) have lower levels of functioning. People who suffer from insomnia are less likely to attend and encode information into working memory (Varkevisser and Kerkhof, 2005), which requires an adjustment in the job tasks. For instance, an individual who works in customer support by telephone may change to the e-mail support service.

Creating age-supportive workplaces can promote workers' motivations and well-being, while showing that the organization values their membership and is committed to them. The way people experience and react to this organizational investment can be realized in high levels of commitment. Affective commitment plays a fundamental role in the results of this study because of its effect as a strong predictor of turnover intention for all workers, regardless of the importance they attach to work. In a time when organizations compete to attract and retain key skills and talent (Burke and Ng, 2006; Chand and Tung, 2014), managers should create, monitor, and reinforce an employment relationship based on trust and loyalty (Emerson, 1976). It is therefore important that the implementation of age-diversity practices be followed by an assessment of workers' perceptions about how suitable they are to respond to their needs and to motivate them. Also, direct supervisors should be aware of how individuals are reacting and adapting to age-related changes (e.g., work ability, health) (Robson and Hansson, 2007). To gather this information, organizations could, for example, develop a tool for assessing age diversity management that includes an annual questionnaire directed to all workers and an individual interview for workers who are at risk.

Finally, the implementation of an age-diversity strategy cannot occur in a cultural vacuum, but needs to be accompanied by a commitment from the top management to diversity management. The senior management must to share a clear vision of inclusion and diversity values, and role model those values in order for the age-diversity strategy to gain organization-wide acceptance. Introducing age-diversity practices should be a top-down management decision, but the support of all workers is crucial to the success of these initiatives.

Limitations and avenues for future research

The findings of this study should be considered in the light of some limitations. We focus on only one of the three commitment components proposed by Allen and Meyer (1990) – affective commitment – since it has the strongest association with turnover intention. Considering the importance of this construct in the findings, we suggest that future research could include continuance (i.e., individuals need to stay in the organization) and normative (i.e., workers feel they ought to remain) commitment in the model.

A second limitation concerns the nature of the sample used in this study. Participants were recruited using a non-probabilistic sampling process, limiting the generalizability of the results. Finally, the study presents a cross-sectional design, which prevents us from drawing conclusions regarding causality among the variables. Although we provided solid theoretical arguments for the direction of the relationships, we cannot rule out the possibility of a reverse relationship, and we encourage future researchers to replicate our findings with longitudinal data. A longitudinal design could also provide an important and deeper understanding of possible changes in the role of age-diversity practices to explain positive work-related outcomes.

We believe that the HRM literature would benefit from a more complete picture of the relationship between age-diversity practices and turnover intention if future research explores potential differences across professional groups or industries, especially those that have high turnover rates (e.g., nurses, hotel staff, agents in call-centers). Also, future studies might incorporate organizational performance as a final output in the model, as in earlier investigations (e.g., Kunze *et al*., 2013), using both subjective ratings and objective financial performance measures. A multilevel perspective can shed light on the effects of age-diversity practices for individuals and organizations.

CONCLUSION

This study investigated the mediating role of work engagement and affective commitment in the effect of age-diversity practices on turnover intention. Empirical evidence supported the assumption that individuals perceiving the existence of age-diversity practices were more engaged and committed with the organization and, in turn, showed lower turnover intention. This investigation also examined the moderating role of work centrality in the indirect effects of age-diversity practices on turnover intention via work engagement and via affective commitment. It was found that the relationship between age-diversity practices and turnover intention through work engagement was stronger for individuals with low work centrality than for those with high work centrality. For the indirect effect via affective commitment, the moderation effect was not significant. These results together highlight the importance of implementing an age-diversity strategy to retain an age-diverse workforce.

CHAPTER 4

AGE-DIVERSITY PRACTICES AND RETIREMENT PREFERENCES AMONG OLDER WORKERS: A MODERATED MEDIATION MODEL OF WORK ENGAGEMENT AND WORK ABILITY[2]

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[2] This chapter is published as:

Sousa, I. C., Ramos, S., & Carvalho, H. (2019). Age-diversity practices and retirement preferences among older workers: A moderated mediation model of work engagement and work ability. *Frontiers in Psychology*, *10*:1937. https://doi.org/10.3389/fpsyg.2019.01937

ABSTRACT

To meet the demographic changes, organizations are challenged to develop practices that retain older workers and encourage them to postpone retirement. The purpose of this paper is to examine the role of human resources (HR) practices in retirement preferences of older workers. Drawing on theories on lifespan development and social exchange, we suggest that organizations can facilitate longer working lives by implementing bundles of HR practices that are sensitive to age-related changes in workers' skills, preferences, and goals – i.e., age-diversity practices. We posit that age-diversity practices are positively related to work engagement that, in turn, relates to the preference for retiring later. We further suggest that work ability moderates the relationship between age-diversity practices and work engagement. Finally, we propose a moderated mediation model in which the mediated relationship is moderated by work ability. A sample of 232 older Portuguese workers completed a questionnaire. Hypotheses were tested by using structural equation modelling (SEM). Findings show that work engagement completely mediates the relationship between age-diversity practices and the preference for early or late retirement. Moreover, this mediating relationship is more important for those workers who experience low work ability. Results further demonstrate that the effect of age-diversity practices on the preference for retiring later via work engagement is stronger for lower levels of work ability. This study highlights the organizational role in promoting longer and healthier working lives through the implementation of age-supportive HR practices.

INTRODUCTION

People are living longer today than ever before, while fertility rates are dropping and life expectancy is increasing worldwide. In 2017, 12.7% of the world population was 60 years old or over and this share is projected to reach 21.3% in 2050 (United Nations, 2017). In Portugal, individuals aged 65 years or over will become a much larger share, rising from 21% (2016) to 35% (2070) of the population (European Commission, 2017).

As the population ages, so will the workforce. While young people tend to enter the labor force later due to longer schooling, older individuals have increased their participation in the labor market, contributing to a graying workforce (Alley and Crimmins, 2007; European Commission, 2017). However, despite that, the working-age population will shrink, as the number of younger workers entering the labor market is insufficient to replace those who are retiring (Burke and Ng, 2006; Chand and Tung, 2014). In the EU, the working-age population renewal ratio was below 100 in 2013, with 97 people aged 20 to 29 years per 100 people aged 55 to 64 years old (Statistics Portugal, 2015). According to Statistics Portugal (2015), in 2013, Portugal was the third country in the EU-28 with the lowest working-age population renewal ratio (86 people aged 20-29 years per 100 people aged 55-64 years old).

Demographic aging is a major challenge to which societies should respond: slower economic growth, poverty among the elderly, unsustainable pension systems, unequal distribution of saving and purchasing power, threats to the system of intergenerational reciprocity, increased costs with health care systems, and the aging and shrinkage of the labor force (Chand and Tung, 2014; Kulik *et al*., 2014; Nagarajan *et al*., 2016). In general, the aging population places intense pressure on national budgets, leading governments to implement policy changes to increase the participation rate of older workers and prevent an early exit from the workforce (Mahon and Millar, 2014; Naegele and Krämer, 2002). Some countries opted for increasing the eligible age for early and statutory retirement (e.g., Italy, Portugal, Sweden), introducing an automatic link between retirement age and life expectancy, while others opted to abolish the mandatory age for retirement for most of the occupations (e.g., Canada, USA) (Flynn, 2010a; Solem *et al*., 2016). For example, in 10 countries of the OECD the pensionable age is 65 years for both men and women, and in eight countries is more than 65 years (OECD, 2017).

Governments' strategies to stimulate older people to stay in the workforce until higher age are designed and implemented at a societal level (i.e., public policies) but organizations are also called upon to participate in the promotion of fuller and longer working lives. From the organization’s perspective, the extension of working careers is crucial to cope with the expected decrease in the labor supply, ensuring their future competitiveness and sustainability (Conen, Henkens, and Schippers, 2014). Labor and skills shortages require organizations to develop HR strategies that are settled in a resource-based view: to retain the best talents and to attract and recruit valuable older workers available in the labor market (Wright, Dunford, and Snell, 2001). Therefore, organizations should assume a proactive stance to workforce aging and implement an age management strategy that encompasses analyzing the organizational HR structure (actual and desirable), including age diversity, evaluating older workers’ interests and needs, and developing age-sensitive HR practices (Vendramin *et al.*, 2012; Walker, 1999). This approach requires the organization to be aware of workers’ abilities and preferences regarding retirement in order to implement HR practices that retain those workers who are able to perform their job and that are motivated at work and to work (Kanfer *et al.*, 2013).

Previous investigations have examined the relationships between HR practices and retirement, showing that HRM can be a mechanism to prevent early retirement and to motivate older workers to work beyond retirement (e.g., Bal *et al.*, 2012; Herrbach *et al.*, 2009; Pak *et al.*, 2019; Potočnik, Tordera, and Peiró, 2009; Zappalà, Depolo, Fraccaroli, Guglielmi, and Sarchielli, 2008). However, the impact of HR practices on retirement intentions and behaviors has not been completely clarified, and the processes involved in this relationship are not yet fully understood. Thus, in this study we examine the impact of age-diversity practices on the preference for early or late retirement via work engagement, and seek to determine if this mediated relationship is moderated by work ability.

This study contributes to the literature by examining the role of age-diversity practices, a novel construct in the literature, in predicting the preference for early or late retirement. Age-diversity practices are perceived age-aware HR practices and policies that support and promote the development of workers of all ages (Boehm *et al.*, 2014; Walker, 1999). We argue and demonstrate that such practices relate to a preference for late retirement through higher levels of work engagement. Furthermore, this study adds to the retirement literature, in particular to the field of work-related predictors of retirement, by proposing and showing work engagement as an important antecedent of the preference for late retirement. Finally, the moderated mediation model was tested through structural equation modelling (SEM), which allows researchers to better control for errors and obtain a more accurate model.

Retirement in the Portuguese Context

The Portuguese retirement system consists of a mandatory state pension scheme administered by the Social Security organization for the private sector and the General Retirement Fund for the public sector. Individuals qualify for an old-age pension (i.e., retirement pension) based on their age and on their contributions to the social security system, which are proportional to their income. In recent years, due to the need for reducing the expenditure with the social security system, one of the major pension reforms in Portugal was linking the retirement age to life expectancy at 65 years old (Decree-Law No. 167-E/2013). Currently, individuals must be 66 years and 5 months old (Ordinance No. 50/2019) and have paid social security contributions for at least 15 calendar years to access the full old-age pension. In 2018 the average retirement age was 64.2 years old, 63.4 years old for men and 64.2 for women (PORDATA, 2019b), slightly below the statutory retirement age.

Early retirement is possible without penalties if individuals are 60 years old and have made contributions for at least 40 years (Decree-Law No. 119/2018). Otherwise, individuals will have a penalization of 0.5% for each month of anticipation in relation to the statutory retirement age, and an additional cut of 14.67% that corresponds to the sustainability factor defined for 2019 (Ordinance No. 50/2019). Despite the penalizations, the old-age pension is still available for those workers that opt for early retirement. In 2018, 152.197 individuals were receiving anticipated old-age pensions (PORDATA, 2019c). Therefore, workers can decide to retire at the statutory retirement age, before (i.e., early retirement) or after that age.

Theoretical background and research hypotheses

Research interest in the extension of working lives has been growing in recent years. Researchers in many fields, including for example, economics and management, have focused on investigating the impacts of an aging workforce (Börsch-Supan, 2000; Kulik *et al.*, 2014; Vasconcelos, 2015). In the HRM literature several researchers propose that organizations can take advantage of their new age structure through HR practices and policies (e.g., Kooij *et al.*, 2008; Nagarajan *et al.*, 2019; Truxillo *et al.*, 2015). Previous research challenged the universality of HRM showing that work-related motives and attitudes change with age, and that there are HR practices that can especially fit older workers' needs and preferences (Armstrong-Stassen and Schlosser, 2011; Kim and Kang, 2017; Kooij *et al.*, 2011; Ng and Feldman, 2010; Pinto *et al.*, 2014).

In this sense, this study proposes age-diversity practices as a strategy to retain older workers in the workforce at their best performance level and in a sustainable manner. Age-diversity practices refer to workers' perceptions that HR practices are inclusive and non-discriminatory for individuals of all ages, as well as sensitive to age-related changes in workers' skills, preferences and goals (Boehm *et al*., 2014; Kunze *et al*., 2013; Walker, 1999). Through the implementation of these practices, organizations communicate their purpose of promoting and maintaining an age-diverse workforce. Age-diversity practices can be understood in the light of lifespan development theories (Baltes *et al*., 1999). According to these theories, aging is a process of changes (e.g., physical, cognitive) that encompasses both gains and losses, and requires a remarkable individual adaptive capacity to cope with such changes (Kanfer and Ackerman, 2004; Truxillo *et al*., 2015). As a result of facing different changes throughout life, as people grow older, they accumulate different personal experiences, which results in more heterogeneity or differentiation within a cohort group (i.e., inter-individual differences) (Carstensen, 2006; Kanfer and Ackerman, 2004). Hence, the group of older workers presents a great diversity in terms of work-related values, preferences, and interests. Age-diversity practices, understood as age-supportive HR practices, may fit different types of older workers (Truxillo *et al*., 2015).

Age-diversity practices focus on workers' perceptions since there is often a discrepancy between intention and practice in HRM. In fact, previous research shows that there is a clear distinction between the organizational practices that are formulated and intended by managers and the way they are perceived by workers when implemented, leading researchers to argue that it is important to understand how workers perceive HR practices in order to examine the influence of such practices on workers' attitudes and behaviors (Khilji and Wang, 2006; Truss, 2001). According to signaling theory, organizational practices and policies are interpreted by workers as signals of the organizations' intentions toward them (Casper and Harris, 2008; Rynes, 1991). More specifically, HR practices emit signals of organizational interest in workers that they may interpret as perceived organizational support, facilitating the individual attachment to the organization (Casper and Harris, 2008; Den Hartog *et al*., 2004). Following this reasoning, HRM should create, communicate, and implement age-diversity practices to inform workers that the organization is willing to invest in the development of their potential, regardless of their age, and to maintain a long-term relationship with them.

The implementation of age-diversity practices requires the organization to assume a proactive stance in hiring, promoting, and retaining workers of all ages, and also educating managers about leading age diverse workforces (Boehm *et al*., 2014; Rego, Vitória, Cunha, Tupinambá, and Leal, 2017; Walker, 2005). More precisely, age-diversity practices are combinations of HR practices (i.e., HR bundles) that are age-sensitive but do not target a specific age-group, and include recruitment and selection, development and promotion, performance evaluation, work adjustment, and recognition. Furthermore, age-diversity practices are designed to create an environment where all workers, regardless of their age, can fit it and be accepted, which makes the organization attractive to future candidates. Due to their flexibility, these practices can cope with the great complexity of the different needs and goals of an age-diverse workforce, as well as remove potential age barriers.

A recent work from Kooij, Jansen, Dikkers, and De Lange (2014) distinguished four bundles of HR practices that potentially help to retain older workers: development, maintenance, utilization, and accommodative practices. Age-diversity practices aggregate these four bundles of HR practices, as they aim to fulfill workers' needs by helping to improve and sustain workers' ability, motivation, skills, attitudes, and behaviors (Bal *et al.*, 2013; James, McKechnie, and Swanberg, 2011; Kuvaas, 2008; Kooij *et al.*, 2014).

Development practices refer to organizational measures that help individuals to grow and achieve higher levels of functioning, such as training and promotion (Kooij *et al.*, 2014; Zaleska and de Menezes, 2007). Likewise, age-diversity practices are aimed at increasing older workers' ability and motivation to work by offering opportunities to develop and apply new skills and knowledge, and also to be recognized for them. Maintenance practices are HR practices that seek to maintain older workers' levels of functioning in the face of age-related changes (e.g., flexible work schedules) (Kooij *et al.*, 2014). Age-diversity practices support individuals in their efforts to maintain their current levels of functioning in the face of new challenges by proposing a fair and adequate performance evaluation, which generates important feedback and thoughtful management of workers' needs (e.g., health, skills) over time. These measures have a preventive nature and can include, for example, ergonomic adjustments or health check-ups. Utilization practices are conceptualized as those practices that, following a loss, help individuals to utilize already existing resources (e.g., experience) (Kooij *et al.*, 2014). Similarly, when workers face a loss in their resources, age-diversity practices are aimed at recovering workers' previous levels of functioning to ensure they will be able to perform their tasks. For instance, by valuing and recognizing workers' experience at work (e.g., job mobility) or redesigning the job, age-diversity practices can remove highly demanding tasks that become impossible to perform and replace them with other tasks that are achievable with existing resources. Finally, accommodative practices refer to those practices that aim to meet workers' needs by reducing their demands and help them to perform well at low levels of functioning when maintenance or recovery is no longer possible (e.g., decreases in physical workload) (Bal *et al*., 2013; van Dalen, Henkens, and Wang, 2015). Age-diversity practices can accommodate lower levels of functioning mainly by focusing on the adaptation of the job to workers' needs over time, which demands attentive monitoring and follow-up by direct managers.

In a nutshell, if workers perceive the existence of age-diversity practices in their organization, they will perceive that there are HR practices that support their developing needs (i.e., development), that help them to maintain their current levels of functioning (i.e., maintenance), that make use of their existing experience, knowledge, and skills (i.e., utilization), and that help them to function well at lower levels of functioning (i.e., accommodative).

In this paper we argue that the existence of such practices will be a signal to older workers that the organization is interested in retaining them. In response, workers will provide a return on the organization's investment by showing increasing levels of work engagement that will result in a preference for late retirement. Furthermore, this relationship will be especially important for those older workers experiencing lower levels of work ability, since they feel less capable of performing their job and of remaining in the workforce for longer.

Age-diversity practices and work engagement

Age-diversity practices can be perceived by workers as a signal of organizational appreciation of their work. Therefore, drawing from social exchange theory (SET) (Blau, 1964; Cropanzano and Mitchell, 2005), it is possible to expect that this investment will be reciprocated by workers through increased work engagement. Work engagement has been conceptualized as a positive work-related state of fulfillment, characterized by vigor (i.e., high levels of energy while working, willingness to invest effort in work, and persistence in the presence of difficulties), dedication (i.e., strong involvement in work, and experiencing a sense of enthusiasm, inspiration, and pride), and absorption (i.e., high levels of concentration and positive engrossment in work, such that time passes quickly) (Bakker *et al*., 2008; Schaufeli *et al*., 2002).

The central premise of SET is that the exchange of resources is a fundamental form of human interaction (Cropanzano and Mitchell, 2005). Blau (1964) argues that social exchanges are voluntary actions of individuals that act in favor of another party with the expectation that such action will be reciprocated in the future. Based on this idea of reciprocal interdependence, organizational literature suggests that beneficial actions from organizations to workers contribute to the development of an expectation of some future contributions in return (Settoon, Bennett, and Liden, 1996). The implementation of organizational practices and policies, such as age-diversity practices, may create a general perception among workers that the organization values their contributions and cares for their health and well-being. If workers perceive that organizations value them and treat them fairly, they will likely reciprocate with vigor, dedication, and absorption in their work.

Age-diversity practices can foster workers' learning and development, leading workers to reach higher levels of functioning, and therefore providing a return to the organization through increasing levels of work engagement (Bakker, 2011; Bal *et al.*, 2013). For instance, an older worker who is included in the training about the new software will be more intrinsically motivated at work, and consequently more engaged in his/her work. Also, age-diversity practices can create adequate working conditions to help individuals meet job demands through different strategies, leading to more positive experiences at work, and therefore to an increasing self-invest in their work (Christian *et al.*, 2011). Anticipating potential health-related changes, such as musculoskeletal disorders, the organization can, for example, redesign some physical aspects of the job by offering an adjustable table and chair, or provide training about injury prevention.

The relationship between age-diversity practices and work engagement can be understood as a social exchange between the worker and the organization that has benefits for both parties. Based on this idea, we expect that if an organization creates and implements age-diversity practices, workers will display higher levels of work engagement. In line with previous research, age-diversity practices are expected to relate to workers' engagement. Therefore, we propose that:

Hypothesis 1: Age-diversity practices are positively related to work engagement.

Age-diversity practices, work engagement and the preference for early or late retirement

Age-diversity practices can be a mechanism to encourage older workers to postpone retirement. SET is a relevant theoretical rationale to explain the relationship between age-diversity practices and the preference for late retirement. A basic principle of SET is that the relationship between the organization and the worker evolves over time into a long-term commitment based on trust and loyalty, as long as the parties comply with the reciprocity rule (Cropanzano and Mitchell, 2005). Therefore, from the social exchange perspective, organizations show interest in satisfying workers’ needs and interests by implementing age-diversity practices, and workers reply reciprocally with favorable behaviors toward the organization by retiring later.

Retirement has been conceptualized as a dynamic and complex process that occurs over time and involves different factors, such as individual attributes, family aspects, job and organizational factors, or the socioeconomic context (Fisher, Chaffee, and Sonnega, 2016; Scharn *et al.*, 2018; Topa, Depolo, and Alcover, 2018). In an attempt to understand the organizational role in the retirement decision-making process, research has identified several work-related antecedents that affect retirement, including organizational commitment (Adams and Beehr, 1998), attitudes toward work (Desmette and Gaillard, 2008), workplace timing for retirement (Feldman, 2013), and job-related stress (Wang, Zhan, Liu, and Shultz, 2008). Also, the influence of HR practices in the retirement decision-making process has been extensively studied (Herrbach *et al.*, 2009; Lee, Zikic, Noh, and Sargent, 2017; Potočnik *et al.*, 2009; Saba and Guerin, 2005). Similarly, it is expected that age-diversity practices influence retirement preferences. More specifically, we argue that if workers perceive that their organizations are developing and implementing age-diversity practices, they will likely prefer to retire later.

Despite the growing interest for research in this topic, there are still several questions to be addressed regarding the processes involved in the link between HR practices and retirement. This study proposes that work engagement is a psychological consequence of age-diversity practices and that it is a psychological antecedent of the preference for early or late retirement. In fact, research suggests that work engagement has many positive outcomes for both workers and organizations, such as job satisfaction (Saks, 2006), higher organizational commitment (Scrima, Lorito, Parry, and Falgares, 2014), higher organizational performance (Christian *et al.*, 2011), and lower intention to quit (Schaufeli and Bakker, 2004). These findings suggest that an engaged workforce can help organizations to retain their best talent (Scrima *et al.*, 2014). Engaged workers indeed have high levels of energy, are enthusiastic about their work, and are often fully immersed in their job, so that time passes quickly. Therefore, engaged workers are intrinsically motivated to participate in the workforce, to accomplish their tasks at work, and to delay the exit from the workforce (Bentley *et al.*, 2019; Kanfer *et al.*, 2013). Recent evidence from de Wind and colleagues (2017) suggests that older workers who followed a steady low work engagement trajectory in the preceding three years were more likely to retire early in comparison with those who followed a steady high work engagement trajectory.

In accordance with SET, we argue that age-diversity practices, perceived by workers as an organizational investment in them, induce workers to reciprocate through increasing levels of work engagement that, in turn, will lead to a desire to retire later. Conversely, when the organization fails to offer age-diversity practices, workers are more likely to disengage themselves from the work role and leave the organization earlier through retirement. In this study, and in line with previous research, work engagement is expected to mediate the effect of age-diversity practices on the preference for early or late retirement. Therefore, we argue that:

> Hypothesis 2: Work engagement mediates the relationship between age-diversity practices and the preference for early or late retirement.

The moderating role of work ability

Work ability has been an emerging topic in the literature on aging and work (Cadiz, Brady, Rinner, and Truxillo, 2019; Morelock, McNamara, and James, 2017). Although there are different conceptualizations of work ability, in this study it is defined as an individual's self-assessment about the degree to which he or she has personal resources to meet the demands of work (McGonagle, Fisher, Barnes-Farrell, and Grosch, 2015). Individuals experiencing high levels of work ability perceive themselves as having the functional capacities (mental, physical and social resources) and individual health, competence, attitudes, and values to successfully manage and perform the work tasks (Ilmarinen and von Bonsdorff, 2016; Tengland, 2011). On the contrary, workers who perceive that their resources are not adequate to meet the job requirements are experiencing low work ability.

Earlier research demonstrates that work ability is influenced by individual (e.g., gender, personality) and work-related (e.g., organizational practices, physical and mental demands) factors (McGonagle *et al*., 2015; Tuomi, Vanhala, Nykyri, and Janhonen, 2004). Therefore, organizations can play an important role in promoting the work ability of their workers. In line with selection, optimization, and compensation (SOC) theory (Baltes and Baltes, 1990), organizations can implement practices that help older workers to cope with age-related losses that will probably affect their ability to meet job requirements. Such practices can help to reduce the gap between individuals' abilities and job demands by allowing the use of SOC strategies that maximize gains and minimize losses. For example, coworker and supervisor support (Mazloumi, Rostamabadi, Saraji, and Foroushani, 2012), decreased work demands (Tuomi *et al*., 2004), and effort-reward balance (Fischer and Martinez, 2012) can contribute to better work ability among older workers. In addition to the extensive body of research examining work ability as an outcome, there are also several studies investigating work ability as a predictor.

Tuomi, Huuhtanen, Nykyri, and Ilmarinen (2001) suggest that workers experiencing good work ability are more likely to produce high quality work, to achieve higher levels of productivity, and to enjoy staying in the job. Therefore, good work ability is associated with positive work-related outcomes that are beneficial for the organization.

Previous research also shows that work ability is positively associated with work engagement (Airila, Hakanen, Punakallio, Lusa, and Luukkonen, 2012; Rongen, Robroek, Schaufeli, and Burdorf, 2014). Although work engagement is usually identified as an antecedent of work ability, some researchers acknowledge that this relationship may be reciprocal (Cadiz *et al*., 2019). Engagement encompasses high levels of vigor, dedication, and absorption, and it is likely that work ability influences the extent to which people are able to be involved in their work while demonstrating high levels of energy, enthusiasm, and concentration. Thus, different levels of work ability can moderate the positive impact of age-diversity practices on work engagement.

Based on these arguments, it is expected that older workers who perceive low work ability will attribute more importance to the role of age-diversity practices in retirement. Because older workers with low work ability perceive that they possess less functional capacity to meet job demands, they are more likely to perceive that age-diversity practices will facilitate their engagement. On the contrary, workers experiencing high work ability will feel more capable of performing their tasks and perceive age-diversity practices as less important for them to be fully engaged in work. Accordingly, this paper proposes that the relationship between age-diversity practices and work engagement is moderated by work ability. Therefore, we argue that:

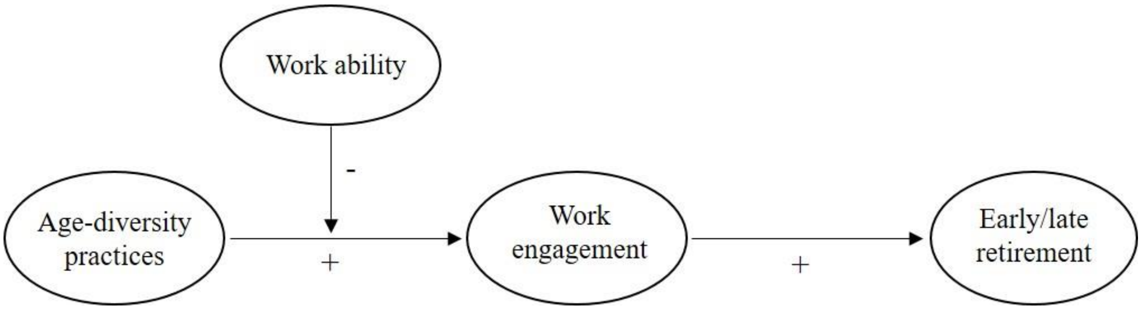
> Hypothesis 3: Work ability moderates the positive relationship between age-diversity practices and work engagement, such that the relationship is stronger among workers perceiving low work ability.

Following the previous reasoning, this study also hypothesizes that work ability moderates the strength of the mediated relationship between age-diversity practices and the preference for early or late retirement through work engagement. When older workers experience low work ability, they interpret organizational practices in a positive way and consequently may reciprocate by being fully engaged in their work (Alfes, Shantz, Truss, and Soane, 2013b), which leads to a preference for retiring later. The perception of incapacity associated with low work ability reinforces the need to implement age-diversity practices that contribute to an engaged workforce and motivate the preference for a later retirement age. On the other hand, older workers who experience high levels of work ability already feel that they are able to meet job demands, and thus are more engaged in work and more willing to retire later. Therefore, for workers with high work ability, the indirect effect of age-diversity practices on the preference for early or late retirement is weaker. The following hypothesis is then proposed:

> Hypothesis 4: Work ability moderates the indirect effect of age-diversity practices on the preference for early or late retirement via work engagement, such that the positive indirect effect is stronger among workers perceiving low work ability.

In summary, this study examines the impact of age-diversity practices on work engagement that, in turn, will influence the preference for early or late retirement. Also, this investigation argues that the relationship between age-diversity practices, work engagement, and the preference for early or late retirement could be strengthened by a negative perception of work ability. Figure 4.1 presents the theoretical model of this study.

Figure 4.1. Proposed theoretical model



MATERIALS AND METHODS

Procedure and Sample

The data used here were obtained as part of a larger survey about work attitudes and retirement among Portuguese workers. The questionnaire had both an online and a paper and pencil version, and participants took on average 15 minutes to complete it. Ten large companies from different industries (e.g., energy, retail, manufacturing, services) and both public and private sectors were invited to disseminate the study and ask for voluntary participation among their workers. Data were also collected by a group of undergraduate and master students from

ISCTE – University Institute of Lisbon, through their personal contacts and in their workplaces and internship places. Students participated in this research as part of their academic training and earned credit for completing the evaluation.

A sample of 232 older Portuguese workers, aged between 50 and 72 years old (M = 55.08, SD = 4.52), completed the questionnaire. Among the participants, 56.5% were female and 47.4% had completed higher education. More than half of the participants (64.2%) were the primary wage earner in their households. Twenty-two percent of them worked in the Education and training sector, 14.7% in the Health and social support sector, and 13.4% in Manufacturing and production. The majority of participants (51.7%) worked in the public sector. Regarding organizational tenure, 17.7% of the participants were in the organization for 10 years or fewer and 28.9% for more than 30 years. Ninety-two percent of the sample had worked for more than 25 years.

Measures

All participants were fluent in Portuguese, which required the translation of the items from the source language (i.e., English) to the target language (Portuguese). We first translated the questionnaire to Portuguese, and then an independent researcher performed a blind back-translation to English (Brislin, 1970; van de Vijver and Hambleton, 1996). The back-translation version was compared to the original version and evaluated by a bilingual researcher, who did not suggest any modifications. Given that the work engagement scale was already adapted and validated for Portugal (Sinval *et al*., 2018), it was not included in the translation process.

Age-diversity practices were measured using a seven-item scale that assesses the extent to which workers perceive an inclusive and non-discriminatory treatment of workers of all ages regarding age-sensitive HR practices. Four of these items were retrieved from Boehm and colleagues' age-diversity climate scale (2014). We included three additional items to account for organizational practices related to a) performance evaluation ("All workers have the same opportunities to get an adequate evaluation, regardless of their age"), b) recognition ("Experience, skills, and knowledge of workers are recognized, irrespective of their age"), and c) job design ("The work is adjusted to workers' needs over time"). Responses were rated on a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Additionally, a CFA was conducted to test the one-factor structure of this scale. The results revealed a satisfactory model fit: $\chi^2 = 26.08$, $df = 9$; $\chi^2 / df = 2.898$; CFI = 0.98; TLI = 0.95; RMSEA = 0.09; SRMR =

0.03 (Hu and Bentler, 1999). The Cronbach's alpha showed a good internal reliability (α = 0.87).

Work ability was assessed through four questions regarding both physical and mental demands of the work, at present and in the future (adapted from McGonagle *et al.*, 2015; Tuomi, Ilmarinen, Jahkola, Katajarinne, and Tulkki, 1998; Weigl, Müller, Hornung, Zacher, and Angerer, 2013). It refers to an individual, subjective perception about workers' own ability to continue working considering work demands and personal resources (McGonagle *et al.*, 2015). A list of the statements is presented in the Appendix C. A sample item is: "How do you rate your current work ability to meet physical demands?" Participants answered on a five-point scale ranging from 1 (very poor) to 5 (very good). The internal consistency coefficient for this scale was good (α = 0.90).

Work engagement was measured using the short version of the Utrecht Work Engagement Scale with nine items (UWES-9) (Schaufeli *et al.*, 2006; Sinval *et al.*, 2018). The scale assesses a positive, fulfilling work-related state of mind (Schaufeli *et al.*, 2002). An example item is: "I am enthusiastic about my job". Participants indicated how often they felt the way described in the statements on a seven-point rating scale ranging from 0 (never) to 6 (always). The scale revealed a good internal consistency (α = 0.95).

Preference for early or late retirement was obtained through two questions. Participants indicated their expected ("At what age do you expect you could retire?") and preferred ("At what age would you like to retire?") retirement age (Hess, 2018; Zappalà *et al.*, 2008). Preferred and expected retirement age were positively correlated (r = 0.50, p < 0.001), without multicollinearity problems as proposed by Tabachnick and Fidell (2013). To obtain the preference for early or late retirement, we calculated the difference between these two items by subtracting the expected retirement age from the preferred retirement age. As suggested by Hess (2018) and Zappalà and colleagues (2008), a negative value indicated a preference for early retirement (i.e., workers perceive they will have to work longer than they would like to), while a positive value revealed a preference for late retirement (i.e., workers would like to work longer than the statutory retirement age but there are factors preventing this desire).

Control variables

Age, gender, education, status as wage earner, and organizational tenure were assessed as control variables. Age has been identified as a significant predictor of work ability (Converso *et al.*, 2018; van den Berg, Elders, de Zwart, and Burdorf, 2009), work engagement (Kim and

Kang, 2017), and retirement planning (Evans, Ekerdt, and Bosse, 1985; Taylor and Shore, 1995). Earlier research shows that gender, education, income, and organizational tenure are related with the transition to retirement (Fisher *et al*., 2016; Topa *et al*., 2018; Wang and Shultz, 2010). Age was measured in years. Gender and education were coded as dummy variables (0 = male, 1 = female; 0 = without an academic degree, 1 = with an academic degree, respectively). Participants were asked if they were the primary wage earner (i.e., if their job was the main source of income for the household) (0 = no; 1 = yes). Finally, organizational tenure was also dummy coded (0 = ≤ 30 years; 1 = > 30 years).

Data analysis

A Confirmatory Factor Analysis (CFA) was conducted to validate the measurement model. To test the moderated mediation, SEM was used. Bootstrapping was also implemented to validate the results obtained by the parametric method (maximum likelihood estimation). We used 5,000 bootstrap samples to generate 95% bias-corrected confidence intervals (CI) for both direct and indirect effects (Cheung and Lau, 2008).

Considering the model's complexity, due to the number of indicators involved in the moderation and that can result in an under identified model (Cortina *et al*., 2001), we followed the matched-pair strategy for defining products to represent the latent interaction, as suggested by Marsh and colleagues (2004). We began the analysis by standardizing all the indicators of age-diversity practices (independent variable) and work ability (moderator). Then we created the multiplicative terms of the latent variable interaction factor matching the items in terms of their quality. As age-diversity practices have seven items and work ability has four, we created four pairs, matching the best four indicators from age-diversity practices with all the indicators from work ability (i.e., the best indicator from age-diversity practices with the best indicator from work ability, etc.) (Marsh *et al*., 2004). Finally, we tested the research hypotheses under study. The analyses were performed with Analysis of Moment Structures (AMOS, v. 24; Arbuckle, 2016).

Measurement model and common method variance

The measurement model specifies the relationships between latent variables and their indicators (Henseler, 2017). Table 4.1 shows the model fit statistics for different measurement models. The baseline three-factor model showed an adequate model-data fit. The normed chi-square was 2.08 ($\chi^2 = 317.85$, $df = 156$; $\chi^2 / df = 2.083$), below the cutoff value of 3 (Hair *et al*., 2010). The comparative fit index (CFI) and Tucker-Lewis index (TLI) values were 0.96 and 0.95 (respectively), near the suggested cutoff value of 0.95 (Hair *et al.*, 2010). The root-mean square error of approximation (RMSEA) was 0.07, with the 90% confidence interval for RMSEA ranging from 0.056 to 0.078, which was less than the 0.08 value suggested by Browne and Cudeck (1992), and indicates a reasonable fit. The standardized root-mean square residual (SRMR) was 0.05, a value smaller than 0.08, and that indicates a good fit (Hair, Black, Babin, and Anderson, 2014; Hu and Bentler, 1999).

Table 4.1. Fit indices for measurement model comparison

Models	Three-Factor – Model 1 (Full measurement model)	Model 2 a)	Model 3 b)	Model 4 c)	Model 5 d) (Harman's single factor)
χ^2 (df)	317.85 (156)	459.18 (155)	422.73 (154)	469.88 (151)	482.74 (149)
χ^2 / df	2.083	2.962	2.745	3.112	3.240
CFI	0.96	0.89	0.93	0.92	0.92
TLI	0.95	0.91	0.92	0.90	0.89
RMSEA	0.07	0.09	0.09	0.10	0.10
SRMR	0.05	0.06	0.12	0.09	0.09
χ^2_{dif} (df)		141.33 (1)***	104.88 (2)***	152.03 (5)***	164.89 (7)***

Note: N = 232; χ^2 – chi-square; df – degrees of freedom; χ^2/df – normed chi-square; CFI – comparative fit index; TLI – Tucker–Lewis index; RMSEA – root mean square error of approximation; SRMR – standardized root mean square residual; χ^2_{dif} – chi-square difference.

*** $p < .001$

a) Work ability and Work engagement combined into a single factor.

b) Work ability and Age-diversity practices combined into a single factor.

c) Work engagement and Age-diversity practices combined into a single factor.

d) The three factors combined into a single factor.

As shown in Table 4.1, results demonstrated that the hypothesized measurement model (three-factor model) shows a better fit than all the alternative models. All the standardized loadings are greater than 0.50 (as suggested by Hair *et al.*, 2010), and range from 0.63 to 0.94. Therefore, we proceeded with the assessment of the reliability and construct validity (convergent and discriminant validity) of the hypothesized measurement model. Convergent validity results are summarized in Table 4.2.

Table 4.2. Measurement model: convergent validity

	CR	AVE	MSV
Age-diversity practices	0.88	0.51	0.30
Work ability	0.90	0.69	0.32
Work engagement	0.95	0.70	0.32

Note: CR – Composite reliability; AVE – Average variance extracted; MSV – Maximum shared variance

Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) were used for evaluating convergent validity. As presented earlier, Cronbach's alphas, which ranged from 0.87 to 0.95, showed that the latent variables had very good/excellent reliability (Kline, 2011). As shown in Table 4.2, the CR values ranged from 0.88 to 0.95, exceeding the minimum reliability value of 0.70, and all of the AVE values were above the threshold value of 0.50, confirming the construct reliability of composite indicators (Hair *et al*., 2010). The latent variables therefore meet the standard requirement of convergent validity. The assessment of discriminant validity uses the Fornell-Larcker criterion, which defines that the square root of each construct's AVE should be greater than the inter-construct correlations (Fornell and Larcker, 1981). The Fornell-Larcker criterion is met with regard to all measures. Also, discriminant validity is obtained if the AVE is greater than the maximum shared variance (MSV) (Hair *et al*., 2010), which is shown in Table 4.2. These results sustain the existence of discriminant validity in the model.

In this study all variables were collected from a single source at one point in time and using the same self-report questionnaire. Thus, we needed to establish whether common method bias was a concern in our data (Podsakoff *et al.*, 2003; Williams and Brown, 1994). As we examined individual perceptions (about age-diversity practices and work ability), dispositions (work engagement), and preferences (for early or late retirement), participants are the best source of data regarding their own beliefs. Other sources (e.g., supervisors, coworkers) would have difficulty providing responses on behalf of workers due to the subjective nature of the variables, making self-reported measures clearly more appropriate (Conway and Lance, 2010). Nevertheless, we conducted Harman's single-factor test using CFA (Podsakoff *et al*., 2003). Results showed that a single-factor model did not fit the data well (Table 4.1). These results show that common method variance is not a major concern in this study.

RESULTS

Table 4.3 presents descriptive statistics (mean and standard deviation), reliability and bivariate correlations for all of the constructs. Participants revealed a preference for retiring on average at 61.06 years old (*SD* = 4.77), an average of 4.16 years before their expected retirement age (*M* = 65.22, *SD* = 3.72). Age and organizational tenure were significantly correlated with the preference for early or late retirement ($r = 0.35$, $p < 0.001$; $r = 0.18$, $p < 0.01$, respectively). Gender, education, and status as wage earner showed a significant correlation with work ability ($r = -0.19$, $p < 0.01$; $r = 0.17$, $p < 0.01$; $r = 0.13$, $p < 0.05$, respectively). A significant correlation was found between status as wage earner and work engagement ($r = 0.14$, $p < 0.05$). Age-diversity practices, work ability, and work engagement had a significant correlation with preference for early or late retirement ($r = 0.19$, $p < 0.01$; $r = 0.17$, $p < 0.01$; $r = 0.24$, $p < 0.001$, respectively).

The structural model

The structural model specifies the relationships between the constructs (Henseler, 2017). Our hypothesized moderated mediation model had an acceptable fit to the data: $\chi^2 = 523.78$; $df = 261$; $\chi^2 / df = 2.007$; CFI = 0.94; TLI = 0.93; RMSEA = 0.07; SRMR = 0.09. Age, gender, education, status as wage earner, and organizational tenure were controlled but they did not change the estimated main effects and interaction effects in the moderated mediation model.

Hypothesis 1 posited that age-diversity practices would be positively related to work engagement (Table 4.4). Results support this hypothesis (B = 0.71, $p < 0.001$, 95% CI = 0.48; 0.97), showing that as age-diversity practices increase, work engagement also increases. Hypothesis 2 stated that work engagement would mediate the relationship between age-diversity practices and the preference for early or late retirement. Results revealed the indirect effect to be significant (B = 0.51, 95% CI = 0.13; 1.04), providing support for Hypothesis 2. The direct effect became not significant (B = 0.47, $p > 0.05$, 95% CI = -0.67; 1.56), suggesting a full mediation (Preacher and Hayes, 2004).

Table 4.3. Construct means, standard deviations, correlations, and reliabilities

	M	SD	1	2	3	4	5	6	7	8
1. Age	55.08	4.52								
2. Gender[a]	0.56	0.50	-0.06							
3. Education[b]	0.47	0.50	0.10	0.05						
4. Primary wage earner[c]	0.36	0.48	-0.05	0.27***	-0.04					
5. Tenure[d]	0.29	0.46	0.34***	-0.01	-0.02	-0.08				
6. Age-diversity practices	3.64	1.18	0.04	-0.07	0.13	-0.11	0.02	(0.88)		
7. Work ability	3.69	0.82	-0.04	-0.19**	0.17**	-0.13*	-0.05	0.35***	(0.90)	
8. Work engagement	4.57	1.36	0.09	-0.06	0.08	-0.14*	0.04	0.50***	0.60***	(0.95)
9. Early/late retirement	-4.16	4.36	0.35***	-0.11	0.03	-0.10	0.18**	0.19**	0.17**	0.24***

Note: N = 232. Reliability coefficients are reported in parentheses.

[a] Male = 0, Female = 1.

[b] Without an academic degree = 0, With an academic degree = 1

[c] Yes = 0, No = 1

[d] ≤ 30 years = 0, > 30 years = 1

$^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$ (two-tailed test).

Table 4.4. Multiple regression results for work engagement and preference for early or late retirement

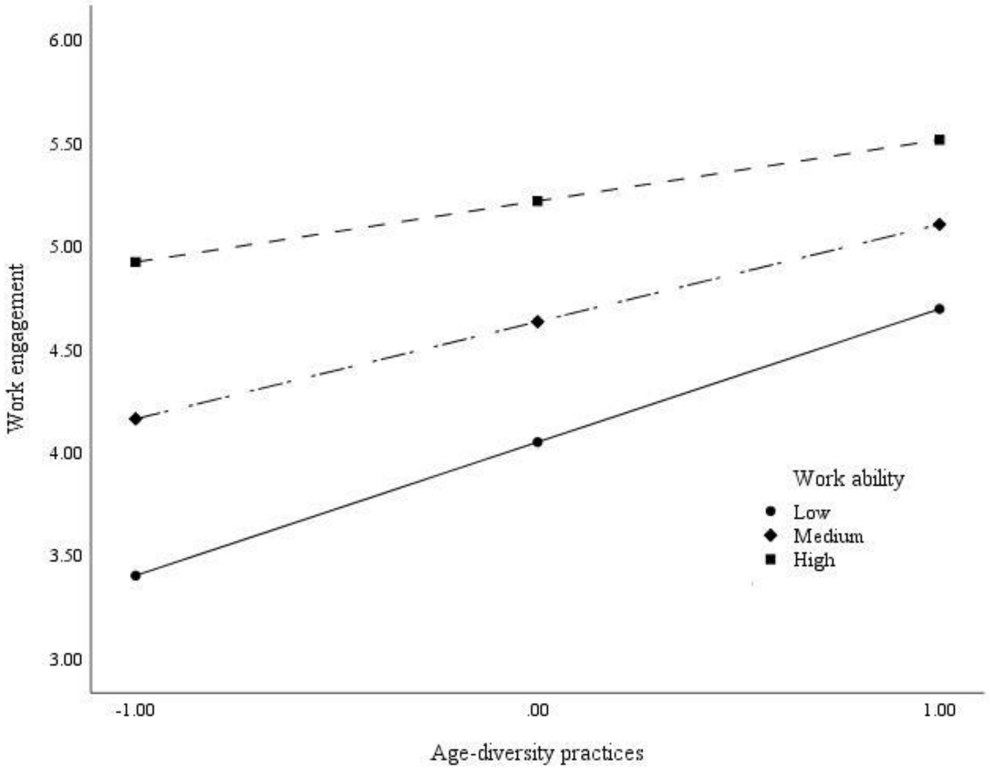
Variables	Work engagement			Preference for early or late retirement		
	Coefficient	SE	95% CI	Coefficient	SE	95% CI
Independent variables						
Age-diversity practices	0.71***	0.13	0.48, 0.97	0.98*	0.48	0.03, 1.88
Work ability	0.79***	0.12	0.56, 1.06			
Interaction						
Age-diversity practices x Work ability	-0.28*	0.12	-0.55, -0.03			
Mediator						
Work engagement				0.71*	0.29	0.15, 1.28
Direct effect						
Age-diversity practices				0.47	0.57	-0.67, 1.56
Indirect effect						
Age-diversity practices				0.51**	0.23	0.13, 1.04

Note: N = 232. All estimates for the moderated mediation were also tested for significance using bias-corrected (BC) confidence interval from 5,000 bootstrap samples.

* *p* < .05 ** *p* < .01 *** *p* < .001

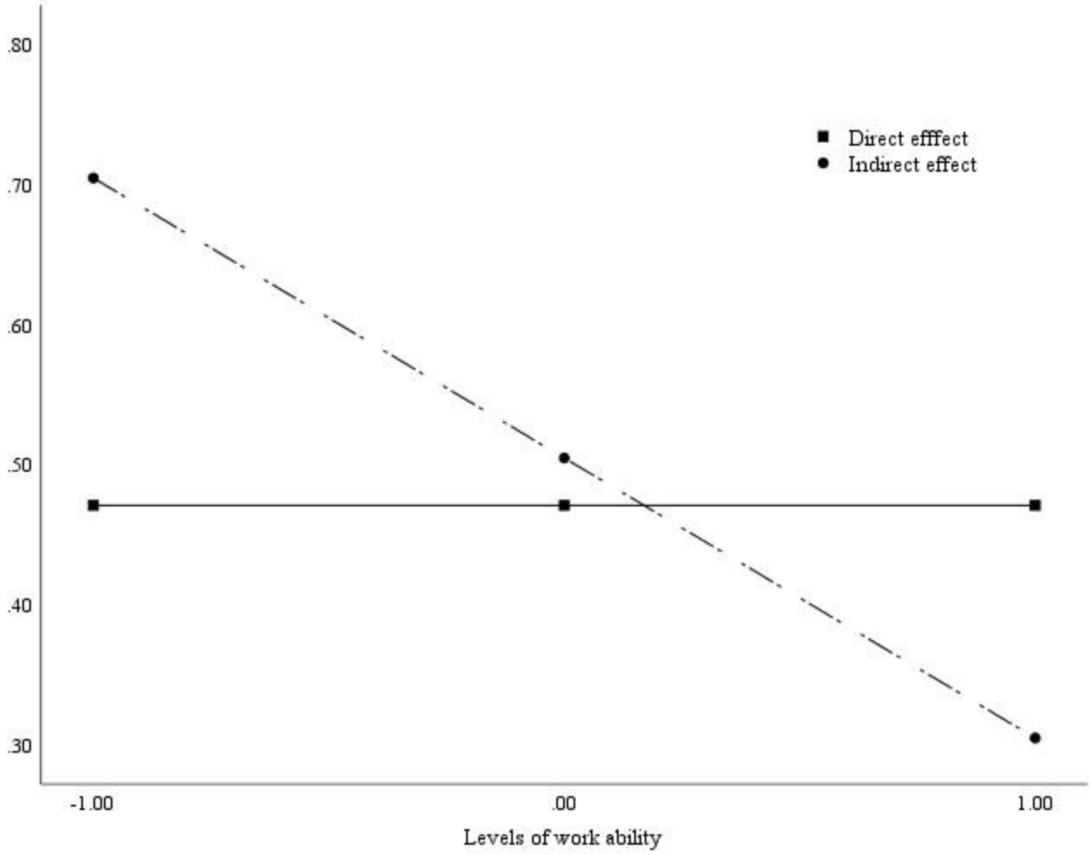
Hypothesis 3 specified that work ability would moderate the relationship between age-diversity practices and work engagement. As shown in Table 4.4, the interaction term of age-diversity practices and work ability was significantly associated with work engagement (B = -0.28, *p* = 0.03, 95% CI = -0.55; -0.03). To further examine the moderation effect, we plotted the results and performed a simple slopes analysis based on the mean of the moderator (work ability) and at one SD above and below the moderator's mean (Aiken and West, 1991; Preacher *et al.*, 2006). Figure 4.2 plots the interaction, which shows that as work ability decreases, the effect of age-diversity practices on work engagement increases. The simple slopes test further supports the moderation effect. The relationship between age-diversity practices and work engagement is stronger when work ability is low (B = 1.00, 95% CI = 0.64; 1.36) and weaker when work ability is high (B = 0.43, 95% CI = 0.08; 0.78), supporting the third hypothesis.

Figure 4.2. Moderating effect of work ability on the relationship between age-diversity practices and work engagement



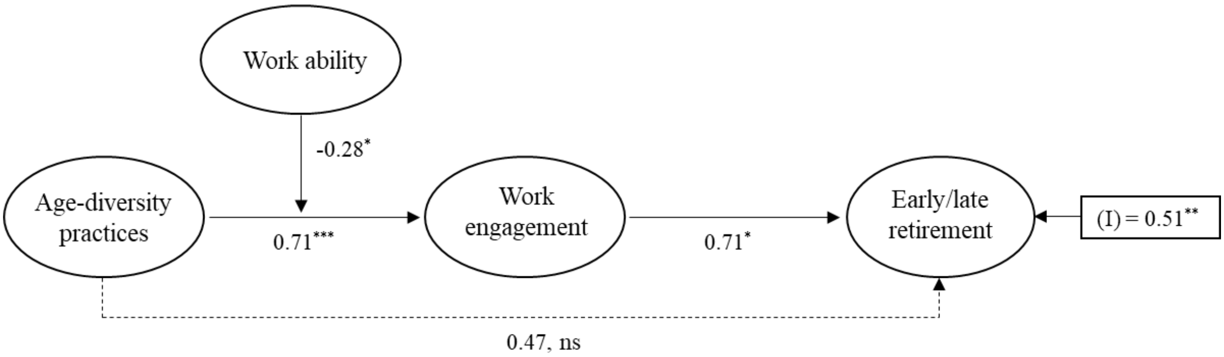
Hypothesis 4 posited that work ability would moderate the indirect effect of age-diversity practices on the preference for early or late retirement via work engagement. Findings showed that the index of moderated mediation was -0.20 (95% CI = -0.56; -0.02), demonstrating that as work ability decreases, the indirect effect of age-diversity practices on the preference for early or late retirement via work engagement increases (Figure 4.3). The simple slopes test provides further support for Hypothesis 4 (B_{low} = 0.70, 95% CI = 0.18; 1.46; B_{high} = 0.31, 95% CI = 0.06; 0.83).

Figure 4.3. The conditional indirect effect of age-diversity practices on the preference for early or late retirement via work engagement



Overall, work engagement mediates the relationship between age-diversity practices and the preference for early or late retirement, and this indirect effect was especially important for older workers who experience low work ability (Figure 4.4).

Figure 4.4. Results of the moderated mediation model



Note: (I) Indirect effect of age-diversity practices on the preference for early or late retirement via work engagement

ns: not significant; * $p < .05$ ** $p < .01$ *** $p < .001$

DISCUSSION

In response to the calls for identifying the factors that facilitate the extension of working lives (Burke and Ng, 2006; Vendramin *et al*., 2012), this study explored processes of mediation and moderation linking age-diversity practices to the preference for early or late retirement, in a sample of older workers. We proposed that age-diversity practices influence work engagement that, in turn, will influence the preference for early or late retirement, and, further, that the strength of this relationship is moderated by workers' perceptions of work ability. Data supported our moderated mediation model.

The first hypothesis proposed that age-diversity practices would be positively related to work engagement, and it was supported by the findings. Older workers that perceived the existence of age-diversity practices in their organization felt higher levels of energy, were more dedicated to their work, and were more often fully immersed in work. As stated by the reciprocity rule of SET, workers perceive age-diversity practices as a signal of organizational intention for a long-term investment in them and reciprocate by increasing their involvement in their work. This finding is consistent with those of previous studies showing that HR practices influence workers' involvement in work (Alfes *et al*., 2013b; Conway, Fu, Monks, Alfes, and Bailey, 2016). In our study, we narrow the broad range of HR practices by introducing age-diversity practices as an antecedent of work engagement. Older workers are a heterogeneous group and differ in their particular needs and expectations regarding their work. The implementation of HR practices that are age-sensitive (i.e., sensitive to the diversity that results from individual experiences throughout life) can promote older workers' engagement by responding to these specific needs and expectations. For example, workers who seek growth and want to achieve higher levels of functioning will feel more engaged in their work if they receive regular training or perceive the existence of opportunities for internal mobility.

The second hypothesis posited that work engagement would mediate the positive relationship between age-diversity practices and the preference for early or late retirement. This hypothesis was also sustained by the results. Individuals who have a positive perception of age-diversity practices are more likely to be engaged in their work and, therefore, have a greater tendency to remain in the workforce, delaying retirement. This result shows a mutual investment in the employee-organization relationship that engenders feelings of obligation, gratitude, and trust in both parties (Blau, 1964). This sense of commitment can buffer the "proximity to retirement" effect (Ekerdt and DeViney, 1993) that is characterized by a period of a decreasing investment in work-related activities (de Wind *et al.*, 2017). Therefore, organizational factors such as age-diversity practices can slow down the preretirement work disengagement process by creating the perception that older workers' talent is valued and needed in the organization (Damman, Henkens, and Kalmijn, 2013). Hence, age-diversity practices might increase the likelihood that older workers will extend their working careers and retire later.

In the third hypothesis we proposed that work ability would moderate the relationship between age-diversity practices and work engagement, and this, too, was supported by the empirical findings. The extent to which age-diversity practices lead to work engagement is contingent upon the overall levels of functioning of older workers. More specifically, results demonstrate that the influence of age-diversity practices on work engagement can be especially important for older workers feeling less capable to meet job requirements. As work ability is related with age-related changes that occur throughout life, workers will likely experience decreasing levels of work ability as they age (Converso *et al.*, 2018), which makes age-diversity practices especially important for older workers' engagement. As the aging process is different from person to person, due to the multiplicity of factors influencing it, it is important to adjust organizational practices to individual needs. Older workers who exhibit low levels of functioning, or who are at risk of experiencing it, will welcome HR initiatives that maintain the current levels or accommodate the lost resources (e.g. flexible work arrangement, reduced workload) (Kooij *et al.*, 2014). Age-diversity practices, due to their flexibility to answer to workers' idiosyncrasy, can promote the engagement of older workers experiencing a decline in work ability.

Finally, the fourth hypothesis proposed the moderated mediation model. Findings show that the effect of age-diversity practices on the preference for early or late retirement via work engagement is stronger for lower levels of work ability. This means that older workers who experience low work ability are more likely to retire later if they are more engaged in their work due to the existence of age-sensitive HR practices in their organization that support and value them. On the contrary, the lack of age-diversity practices may be interpreted by older workers as a sign that the organization does not support them, which in turn will lead them to disengage from the workforce and encourage them to retire earlier than expected.

From a societal perspective, governmental strategies to extend working lives (e.g., increasing statutory retirement age, penalizing early retirement exits) might, on the one hand, provide workers with more opportunities to continue working and, on the other hand, force workers to stay in the labor market, despite their health problems or lack of motivation to work (Flynn, 2010b). This means that older workers who feel obligated to work longer will show increases in work disengagement (Damman *et al*., 2013), challenging organizations' strategies to encourage workers to work longer. So, age-diversity practices appear to play an important role in providing opportunities for workers to achieve higher levels of functioning and feel motivated to continue working, as well as in supporting individuals to maintain and utilize their existing resources (Kooij *et al*., 2014; van Dalen *et al*., 2015; Zaleska and de Menezes, 2007).

Thus, in short, by accommodating age-related changes in workers' capacities and skills (Ilmarinen, 2001; Truxillo *et al*., 2015), age-diversity practices can foster older workers' engagement and their desire to retire later. In that manner, organizations will retain the best talents that are already part of the organization, but will also be able to attract and recruit new talents, achieving an engaged age-diverse workforce.

Theoretical and practical implications

This study makes some valuable academic contributions, namely to the HRM, work engagement, and retirement-related literatures. The results contribute to the HRM literature by showing that practices that are developed taking into account the age-related changes that occur throughout life can benefit older workers' engagement. These practices are not specific to the age group of older workers, but are instead sensitive to the gains and losses that occur more frequently in this phase. In line with SOC theory (Baltes and Baltes, 1990), age-diversity practices can help individuals to reach higher levels of functioning, to maintain current levels, or to return to earlier levels of functioning, and to function adequately at lower levels (Baltes *et* *al*., 1999; Kooij *et al*., 2014). Thus, age-diversity practices help workers to employ different SOC strategies according to their goals and needs and, therefore, they will become more engaged and committed.

We extend earlier research on work engagement and retirement by showing that workers' engagement affects retirement intentions. Work engagement is a mechanism that influences a range of positive outcomes, such as organizational commitment, health, and performance (Christian *et al*., 2011), and can also encourage older workers to postpone retirement. Besides this direct effect, there is a mediating effect of work engagement in the relationship between organizational practices and retirement. This finding shows that this fulfilling, positive state of mind explains how organizations can encourage workers to stay in employment longer.

Finally, the results also contribute to the existing literature on work engagement and retirement by showing the moderating role of work ability in the proposed model. When workers experience low work ability, the relevance of age-sensitive HR practices becomes even more salient. Age-diversity practices are perceived as a signal that the organization still value older workers' contributions, although there is a gap between personal capacities and work demands. As long as organizations provide working conditions that support older workers, such as age-diversity practices, low work ability will not necessarily result in early retirement (Oksanen and Virtanen, 2012). In fact, despite the perception of low levels of functioning, older workers can still be engaged in their work and want to contribute to organizational success.

Empirical findings reveal important practical implications, especially in a context of an aging workforce. Findings suggest that HR managers can implement age-diversity practices to facilitate work engagement among older workers, especially for those who are most vulnerable due to their low work ability. These results highlight the importance of periodically (e.g., annually) evaluating the engagement and work ability of all workers, including older workers. Many organizations already conduct surveys to evaluate workplace climate or workers' satisfaction, with the purpose of identifying and implementing strategies for retaining talents and enhancing productivity. Organizations can benefit from measuring these two constructs (i.e., work engagement and work ability) when surveying their workers in order to identify and monitor their needs, and to create practices that meet these needs. Data from these internal surveys can help organizations to determine which groups of workers are at risk of retiring earlier than the statutory retirement age, due either to low work ability or to low work engagement, and adopt the necessary initiatives for a sustainable late career.

For example, in a manufacturing company, older assembly line workers may be exposed to physically demanding tasks, while those in the accounting department may be exposed to prolonged use of visual display terminals. The first group of older workers might benefit from accommodative practices such as flexible work arrangements (e.g., compressed work week, exemption from night shifts). An individual from the second group that has eye strain might benefit from a set of maintenance practices focused on an ergonomic adjustment of work (e.g., make the monitor's and room brightness match by reducing glare from windows) and training on how to prevent visual discomfort when working at the computer. Such age-diversity practices might encourage workers to use SOC strategies to adapt to changes in work ability, promote engagement, and ensure that late career is a positive experience for individuals.

These bundles of development, maintenance, utilization and accommodative practices can contribute to workers' engagement, and engaged workers will likely prefer to retire later, which is beneficial for the organization. First, an engaged age-diverse workforce can contribute to better organizational outcomes, such as performance, since workers will feel valued and committed with their organization (Boehm *et al.*, 2014). Second, organizations can capture important knowledge that older workers possess that might be advantageous or detrimental for organizational success, and also ensure that this knowledge is transferred to the workers who will succeed those who are retiring in the near future (e.g., workforce planning, succession planning, mentoring). Finally, age-diversity practices can make organizations more appealing for candidates of all ages, which will facilitate the attraction and recruitment of individuals that meet organizational requirements. This will result in an age-diverse workplace with a range of different skills, experience, and perspectives, which might contribute to greater creativity and innovation in teams (e.g., Wegge *et al.*, 2012). Hence, age-diversity practices can help organizations to extend working lives, thus responding proactively to the challenges of an aging workforce.

Limitations and future research

This study highlighted the relevance of age-diversity practices, work ability, and work engagement in retirement preferences, expanding current knowledge about the organizational role in the retirement decision-making process. However, it also has some limitations. First, data were collected at one point in time and, therefore, the conclusions need to be interpreted with caution since in cross-sectional studies it is not possible to identify the causal order of the relationships under study. Future studies with longitudinal designs are welcomed to explore causal effects between these constructs and also to follow workers' perceptions about age-diversity practices over time. A second limitation pertains the non-representative sample of this study for older Portuguese workers, which limits the generalizability of the findings. Data were collected with a convenience sample focusing on heterogeneity, with the purpose of increasing the variety of jobs, individual (e.g., age, gender, education) and organizational (e.g., HR practices, dimension, industry) characteristics. In the future, it would be important to replicate the moderated mediation model in a representative sample of older Portuguese workers. A third limitation of this study is that all participants were from one country (Portugal). Since there are retirement-related particularities in each country, future research should consider other cultures for more generalized results.

Also, we measured perceived rather than actual practices as we were interested in understanding how workers perceive the bundles of HR practices implemented by their organization. However, actual practices can vary across organizations according to their business strategies and the environmental constraints and contingencies. For instance, some organizations may implement essentially development practices for older workers, providing training and internal promotion opportunities, while other organizations may offer mainly accommodative practices, such as workload reductions. Thus, it would be important to apply the case study design to explore how actual and perceived age-supportive HR practices influence work engagement and retirement preferences.

In this study, we conceptualized the preference for early or late retirement in terms of individual preferences and expectations about retirement timing and, therefore, operationalized it using a subjective measure. Future research on this topic could operationalize early, on-time, and late retirement using objective criteria such as age, years of service, and eligibility (e.g., the age at which one becomes eligible for a government pension), and examine the influence of age-diversity practices, work engagement, and work ability in these measures.

Finally, it would also be interesting to examine differences across industries or occupations. Different industries are represented in this study, but the sample size does not allow comparisons among them. In the future, the proposed model can be examined comparing, for instance, the health sector with manufacturing, providing some extra insight about the importance and influence of age-diversity practices and work engagement in these specific contexts.

CHAPTER 5

‘WHAT COULD MAKE ME STAY AT WORK’: RETIREMENT TRANSITION PROFILES

ABSTRACT

Aging populations pose a persistent challenge to the sustainability of public pension systems. To tackle these financial pressures, many countries strengthen the incentives to work by increasing the statutory retirement age and reducing early retirement benefits. These policy reforms make retirement a topic of utmost importance for individuals, organizations, and societies. Although retirement predictors are already a widely studied topic in the literature, there is still much to investigate about why people decide to retire when they do. In particular, the role of work-related variables in the retirement decision-making process is still not fully understood. Thus, the aim of this study was to examine how individual and work factors influence retirement timing (early, on-time, and later retirement). Forty-one interviews were conducted, and data were subjected to content analysis. The inter-relationship between the multiple categories was analyzed by a Multiple Correspondence Analysis (MCA) combined with Cluster Analysis. Results revealed three distinct profiles, which allowed us to group the participants into three clusters. The *stay factors* profile (e.g., high positive experiences at work, having no dependents, the spouse/partner not being retired) was associated with later retirement. These results can be important for organizations that want and need to retain the best senior talents, by acknowledging that positive experiences at work are associated with older workers' desire of postponing retirement.

INTRODUCTION

Retirement is a phenomenon widely studied by various scientific disciplines, including psychology, sociology, economics, gerontology, and health sciences. Retirement research has received a boost of scientific attention in the last decade as a result of demographic changes, technological developments, and economic and financial crises (Sargent, Lee, Martin, and Zikic, 2013; Wang and Shi, 2014).

With the institutionalization of retirement in the mid-twentieth century, public and private pension schemes became common, and the statutory age of retirement was defined in Western industrialized countries (Phillipson, 2013). Later, with the rise of mass unemployment following the 1970s oil crisis, early retirement became a social trend that "*resulted from unintended policies and collective responses to the new socioeconomic pressures*" (Ebbinghaus, 2001: 76). The efforts of governments to reduce labor supply led to improvements in public pension systems (e.g., broadened eligibility for pensions before the normal retirement age) and other welfare programs (e.g., unemployment insurance), which contributed to decreasing employment rates of older male workers (55-65 years old) (Guillemard and Rein, 1993; Hofäcker, Hess, and Naumann, 2015). Also, the economic downturn led organizations to increase productivity and lower costs by restructuring and downsizing, which had a direct effect on older workers (e.g., early retirement incentives) (Ebbinghaus, 2001). Together, these measures conveyed the idea to older workers that early retirement was less costly and more attractive than continuing to work.

At the end of the twentieth century, policy makers in industrialized countries became aware of the problems created by this policy of early retirement. In times of aging populations and threats to the sustainability of public finances, many countries adopted policies to support an extended working life, such as the substantial rise in public pension eligibility ages and increasing financial penalties for early retirement (Hofäcker *et al.*, 2015; OECD, 2017). This change of mindset from early retirement to active aging materialized in the promotion of increasing employment of older workers, full participation in society, and healthy, independent and dignified living of older people (Duchemin, Finlay, Manoudi, and Scott, 2012; Hess, 2017). Hence, within a short historical period, the nature of retirement has changed in terms of both meaning and timing, and it is likely that the future will bring more changes (Henkens *et al.*, 2018; Phillipson, 2013; Sargent *et al.*, 2013). As a result, the concept of retirement itself has become more unpredictable and difficult to define.

Despite the many definitions of retirement, it is commonly understood as a complete and permanent withdrawal from paid working life (Denton and Spencer, 2009). Retirement is a decision-making process that occurs over time and that involves a number of reflections and decisions about when and how people will enroll in retirement (Beehr, 1986; Moen, 2012). In this process, there are a combination of individual (e.g., age, gender, education, work centrality) and situational (e.g., eligibility, family commitments, organizational policies) factors that interact and shape an individual's transition to retirement (De Preter, Van Looy, and Mortelmans, 2013; Fisher *et al.*, 2016; Flynn, 2010b; Scharn *et al.*, 2018). These factors are dynamic and their relevance to the individual can change over time, which makes this process even more complex and unpredictable.

Although the antecedents of older workers' retirement timing are quite well-researched, work-related factors are not yet fully understood. Research about the potential influence of the work situation on workers' decisions to retire has received growing attention since the study of Beehr, Glazer, Nielson, and Farmer (2000). The modifiable nature of some aspects of the work context brought to light the role of organizations in promoting extended working lives (Carr *et al.*, 2016). For example, past research found that increasing mental and physical demands, adverse working conditions, low recognition, and low support were associated with early retirement (Böckerman and Ilmakunnas, 2019; Carr *et al.*, 2016; Dal Bianco, Trevisan, and Weber, 2015). These results suggest that there are several workplace characteristics that can be changed by organizations to delay retirement timing, but it is still necessary to understand the universality of these interventions according to individual factors. Some workers are expected to benefit more from the workplace modifications than others. Individuals who experience poor health, for instance, might benefit from a reduction in the workload, but probably they will continue to desire an early retirement, as they do not feel able to perform their job.

This study examines how individual and work factors influence people's retirement timing. We explore how individual aspects (e.g., health, financial satisfaction) are associated with work-related variables (e.g., relationships at work, job satisfaction) in the definition of retirement transition profiles. Moreover, we investigate how these profiles are associated with retirement timing (i.e., early, on-time, and later retirement).

Despite the extensive empirical research on retirement, studies are often based on survey data (Kojola and Moen, 2016; Robertson, 2000). These studies, especially those with a longitudinal design and large samples (e.g., English Longitudinal Study of Ageing (ELSA), Health and Retirement Study (HRS)) and cross-national databases (e.g., Survey of Health, Ageing and Retirement in Europe (SHARE)), have provided useful insights regarding how people plan, prepare, decide about, and adjust to retirement. However, given the dynamic and complex nature of retirement, quantitative research does not capture the quality of individual experiences (Kojola and Moen, 2016). Thus, in this study, we conducted semi-structured interviews with the purpose of examining the factors associated with retirement timing in a more comprehensive way. The individual interviews were conducted with older workers (55 years old or over) and retirees who were retired for fewer than five years.

The contribution of this paper is threefold. First, we examine the interdependence of individual and work-related factors to shape the retirement decision-making process. By applying Multiple Correspondence Analysis (MCA) to the complex and multidimensional process that is retirement, we can better understand the many relationships that exist among a high number of (categorical) indicators that were included into retirement transition profiles. Second, we performed Cluster Analysis to define groups of older individuals in terms of their retirement transition profiles. These clusters were associated with different retirement timings, which demonstrated the utility of organizations to implement different retention strategies tailored to different groups. To the best of our knowledge, the combination of these statistical multivariate methods has not been used in studies concerning retirement timing.

Third, we consider the Portuguese context specifically since, with a few exceptions (e.g., Fonseca and Paúl, 2004), there is a lack of research about the retirement transition of Portuguese workers. In 2007, the Portuguese government introduced the sustainability factor in the calculation of the statutory age for receiving an old-age pension, linking it to changes in the life expectancy (Decree-Law no. 187/2007; Decree-Law no. 167-E/2013). These reforms represent a change in older workers’ expectations about the length of their careers as they will have to work considerably longer than they had earlier planned or anticipated. Thus, considering the specific legal aspects of retirement in Portugal, this study provides a deeper understanding of why individuals prefer to exit the labor force before, at, or after the statutory retirement age.

Theoretical background

The transition from work to retirement has attracted considerable interest for many years and empirical research has identified numerous antecedents of this transition. Research has shown that retirement decisions depend upon a wide range of individual, organizational, and social aspects: demographic characteristics, financial status, health, family context, work-related variables, and the socioeconomic and political context (Browne, Carr, Fleischmann, Xue, and Stansfeld, 2019; Flynn, 2010a,b; Madero-Cabib, Gauthier, and Le Goff, 2016; von Bonsdorff, Huuhtanen, Tuomi, and Seitsamo, 2010; Wang and Shultz, 2010).

At the individual level, finances and health are the most studied predictors of retirement intentions and decisions, and its consequences (Barbosa, Monteiro, and Murta, 2016; Beehr, 2014; van Rijn, Robroek, Brouwer, and Burdorf, 2014). The well-established influence of the economic aspects in retirement can be explained by the rational-economic approach: Individuals estimate what will be their monthly income as a retiree, according to their pensions and savings, evaluate if this income covers the expenses, and if so they decide to retire (Feldman and Beehr, 2011; Topa, Moriano, Depolo, Alcover, and Moreno, 2011). Thus, the assumption is that workers cannot retire until they can afford to do so financially, regardless of how they feel about work or retirement. For instance, an important reason for working beyond the normal retirement age is the individual’s financial situation (Burkert and Hochfellner, 2017; Fasbender, Wang, Voltmer, and Deller, 2016; Sewdas *et al*., 2017). In the current socioeconomic context after the recession, which was characterized by cuts in benefits, tax increases, and higher cost-of-living (Baker and Rosnick, 2011; Szinovacz, Martin, and Davey 2014), it is crucial to understand how financial aspects influence retirement expectations.

Also, one of the leading factors predicting retirement timing is health (Wang and Shi, 2014). Health and retirement have a complex relationship since previous research demonstrated that health can be either a push or a pull factor (Oksanen and Virtanen, 2012; Shultz, Morton and Weckerle, 1998; Topa, Moriano, Depolo, Alcover and Morales, 2009). On the one hand, deterioration of health pushes individuals to retirement because they perceive that their work ability is impaired, they are afraid of further erosion of health, and retirement is an occasion to rest and recover (de Wind *et al*., 2013; Oksanen and Virtanen, 2012). On the other hand, healthy individuals may feel that retirement is an opportunity to enjoy life outside the work context, which pulls them toward retirement (de Wind *et al*., 2013; Shultz *et al*., 1998). Along with health, work ability has been consistently identified as an important antecedent of retirement (Boissonneault and de Beer, 2018; Cadiz *et al*., 2019; de Wind, Geuskens, Ybema, Bongers, and van der Beek, 2015). Work ability can be conceptualized as an individual’s perception of his or her ability (e.g., physical, mental resources) to meet the job demands (e.g., emotional, cognitive) (Cadiz *et al*., 2019; McGonagle *et al*., 2015). Individuals who report low work ability are more likely to exit from paid employment through early retirement as they feel that their resources are not enough to respond to the demands posed by work (Boissonneault and de Beer, 2018; Sell, 2009).

However, individuals who anticipate financial security in retirement and enjoy good health do not always choose to retire at the statutory retirement age. In fact, even when individuals me*et al*l the requirements to receive a pension, some people decide to continue working because there are other individual variables (e.g., family context, meaning of work) and work-related characteristics (e.g., social support, challenge at work) that motivate them to do so. For instance, individuals who experience personal meaning at work (i.e., have meaningful and satisfying tasks) are more likely to engage in post-retirement employment (Fasbender *et al*., 2016). Also, people who experience social loss in retirement (e.g., loss of social contacts, feelings of being less needed and less respected) see work as an opportunity to fulfill their social needs, leading them to engage in post-retirement employment (Fasbender, Deller, Wang, and Wiernik, 2014). Thus, the option for continuing to work beyond the moment retirement becomes possible is based on different types of motivations.

Family situation is one of the aspects of a worker's personal life that influence retirement timing. Previous research on this topic considers the caregiver role and the employment status of the spouse or partner as important predictors of an individual's intention of anticipating or postponing retirement (Kubicek, Korunka, Hoonakker, and Raymo, 2010; Szinovacz, DeViney, and Davey, 2001). If a spouse, partner, or family member needs to be taken care of, individuals might decide to retire earlier to have more flexibility to assume this role (Kubicek *et al*., 2010). Also, many couples plan their careers to retire at about the same time, even if they differ in age (Gustafson, 2018). Moreover, people might face retirement as a period to enjoy more time with family if relatives do not have work or school commitments.

Finally, decisions about when to retire have also been linked to work characteristics, a relationship that has been explored especially in the HRM literature due to the potentially modifiable nature of these aspects (Browne *et al*., 2019; Carr *et al*., 2016). Work characteristics can be viewed as stay or retention factors when they attract individuals to work, or as push factors when they are perceived as negative aspects and lead older workers to retire (De Preter *et al*., 2013; Hofäcker and Unt, 2013; Hofäcker, 2015). Hofäcker and Unt (2013) proposed as stay factors for the institutional context the active aging policies that are implemented by Governments to improve older workers' employability and promote their maintenance in the workforce. Similarly, organizations can design and implement strategies to encourage older workers to stay active and productive at work (Armstrong-Stassen, 2008; Bal *et al*., 2012; Shacklock and Brunetto, 2011). As past research has shown, these strategies to prompt later retirement should include higher levels of support, more autonomy, greater decision authority, more recognition, opportunities to develop skills and to advance in the career, active aging practices, and an age-friendly climate (Browne *et al*., 2019; Carr *et al*., 2016; van Solinge and Henkens, 2014; Zappalà *et al*., 2008). Work experiences are, therefore, determinants of workers' satisfaction, and greater job satisfaction might lead workers to postpone retirement (Böckerman and Ilmakunnas, 2019; Oakman and Wells, 2013).

Research on retirement has been fruitful, demonstrating the multidimensionality and complexity of this process, as well as the need to include both individual and contextual variables in the analysis (Fisher *et al*., 2016; Furunes *et al*., 2015; Wang and Shultz, 2010). Also, retirement is a dynamic process that occurs over time, rather than a discrete event (Beehr, 1986). The day people actually retire is preceded by planning, preparation, and a decision about the best timing to retire, considering the individual's specific characteristics or circumstances. Although some individuals' lives and careers seem similar, the life course perspective argues that there are events and situations in the past that influence workers' unique intentions and future decisions about retirement (Beehr, 2014; Moen, 1996).

The qualitative approach used in the data collection of this study considers and accounts for multiple factors that might describe the idiosyncratic trajectories toward retirement. The combination of qualitative (i.e., content analysis) and quantitative (i.e., MCA and Cluster Analysis) data analysis can be especially useful to obtain a deeper understanding of the inter-individual variability observed in the transition to retirement. We therefore explored the co-existence of individual (i.e., financial satisfaction, health, pension eligibility conditions, family situation, meaning of work) and work-related (i.e., relationship with colleagues, work experiences, job satisfaction) factors in characterizing the retirement decision-making process. Furthermore, we used a person-centered approach to group individuals who were similar in terms of the configuration of these factors, with the purpose of understanding the preference for early, on-time, and later retirement.

METHODOLOGY

Participants and procedure

Forty-one Portuguese people participated in this study, aged between 55 and 70 years old (*M* = 61.3, *SD* = 3.77). More than half of the participants were male (56.1%), and 36.6% completed higher education. Of these 41 participants, 26 (63.4%) were still working. The demographic characteristics of the participants are described in Table 5.1. The average age of workers was 60.8 years (*SD* = 3.48), and of retirees was 62.2 years (*SD* = 4.20).

Table 5.1. Participants' characteristics

Demographic characteristics		N (Prop.)[1)]
Gender	Male	23 (.56)
	Female	18 (.44)
Age	55-59 years	14 (.34)
	60-64 years	16 (.39)
	65 years or over	11 (.27)
Education level	9th grade or less	10 (.24)
	10th grade – 12th grade	16 (.39)
	Higher education	15 (.37)
Employment status	Employed	26 (.63)
	Retired	15 (.37)

[1)] Due to the low frequencies of the categories, proportions are reported.

The data were collected through semi-structured interviews. Each interview was performed individually, and participants were recruited through personal networks and referrals. The inclusion criterion in the sample was being an individual at the end of his or her working life. To qualify for the study, workers had to have 55 years old or over, and retirees could not be retired for more than five years. The selection of the participants intended to maximize diversity in terms of age, gender, occupation, and career pathways. Participants were informed about the study's objectives and asked for their permission to record the interview.

Instrument

A semi-structured interview script was developed, anchored in relevant scientific literature, which focused on the specific theme of retirement. The script is provided in the Appendix D. A pre-test with four participants was conducted to assess the rigor and relevance of the script, to evaluate if questions were comprehensible to individuals, and to estimate the duration of the interview.

The first part of the interview script was designed to collect demographic information about the participants (e.g., age, gender, level of education). The interviews started with a broad open question ("When did you begin to think about your retirement?"). We also developed support questions focused on the different factors that influence retirement intentions for participants who were working and retirement decision for participants who were retired. The individual factors included questions about participants' financial situation (e.g., "How was your financial situation when you began to think about retirement?"), perceived health and work ability (e.g., "How do you evaluate your health? Do you feel you will be able to work until retirement?"), and social support outside the work context (e.g., "Tell me about your family. Did your household changed from the day you began to think about retirement until today?"). The work factors comprised questions about job characteristics, experiences at work, and organizational practices, and how these aspects can encourage workers to stay active (e.g., "Which aspects of your work motivate you to continue working? What aspects make you want to retire?"). From a biographical perspective, this interview script allows individuals to narrate their story identifying significant and meaningful experiences to them based on its pertinence to the retirement decision (Poirier, Clappier-Valldon, and Raybaut, 1983; Ramos, 2010). The temporal logic of the biographical perspective is important for understanding the dynamics of the retirement decision-making process.

Data analysis

The interviews, with an average duration of 32 minutes, were audio recorded and transcribed verbatim. Initially, the transcribed interviews were read through several times to obtain an overview of the retirement intentions or decision (Graneheim and Lundman, 2004). Then, data management and content analysis were conducted using MAXQDA18 (Kuckartz and Rädiker, 2019). A deductive approach was used to develop conceptual categories and some subcategories according to the literature (e.g., financial satisfaction, health, work-related factors), whereas other subcategories emerged from the data through an inductive process (e.g., meaning of work) (Patton, 2015). The coding units were sentences or paragraphs (excerpts relatively large) that were then assigned to the mutually exclusive subcategories (Bardin, 1996). Finally, a category system was developed with the name and definition of each conceptual category, along with examples of the units of analysis (Bauer and Gaskell, 2000; Patton, 2015). The category system is available in the Appendix D. Most of the variables had three categories, representing the absence of answer, and the positive and negative valence of the dimension. For instance, the variable Financial satisfaction was categorized by 1 – Not mentioned, 2 – Financial dissatisfaction, and 3 – Financial satisfaction. Other variables had three categories that represent the intensity of the dimension, as is the case with the variable Positive experiences (1 – Not mentioned, 2 – Positive experiences, 3 – High positive experiences). Only the variable Meaning of work had more than three categories (i.e., five categories) to describe the different meanings that work can represent to individuals.

The reliability of the category system was assessed through Cohen's kappa, which evaluates the degree of agreement between two raters in the coding process (Cohen, 1960; Hsu and Field, 2003). A total of 152 randomly selected units of analysis (20% of the total units) were coded by a second independent researcher who had access to the category dictionary. Cohen's kappa showed a substantial inter-rater consistency, $\kappa = .662$, $p < .001$ (Landis and Koch, 1977).

An MCA was applied to find retirement transition profiles. This multivariate method is particularly suitable to analyze the associations between multiple categorical variables. Like Principal Component Analysis, MCA allows the definition of structural axes (dimensions), which sustains the graphical representation of the input data multidimensionality in a smaller space, usually in a two-dimensional graph (Carvalho, 2017). Using an optimal scaling procedure (Blasius and Greenacre, 2006), the MCA algorithm defines optimal quantifications (coordinates) for all the categories of the variables under analysis. Those coordinates are used to represent all categories in a factorial plane. Focusing on categories, their associations are emphasized by the geometric proximity of their coordinates in the factorial plane, thereby making the structure of the interrelationships between the variables visible. In this case, MCA provided the structure of the associations between the factors that influenced the retirement decision-making process, which allowed us to assess the multivariate configuration of the retirement transition profiles.

Based on the new optimal quantifications obtained from the MCA algorithm, a Cluster Analysis was then performed to group participants according to their retirement transition profiles. First, a hierarchical cluster analysis was conducted through two different agglomerative methods: Ward and farthest-neighbor (Hair *et al.*, 2010). The convergence of the cluster solution proposed by each agglomerative method, joint with the MCA solution, sustained the accuracy of the MCA results. Then an optimization algorithm (k-means) was implemented to optimize the partition of the participants across their retirement transition profiles. As the profiles had a multidimensional configuration, the clustering solution made it easier to perform posteriori analyses. Data analysis was performed using SPSS 25.0.

RESULTS

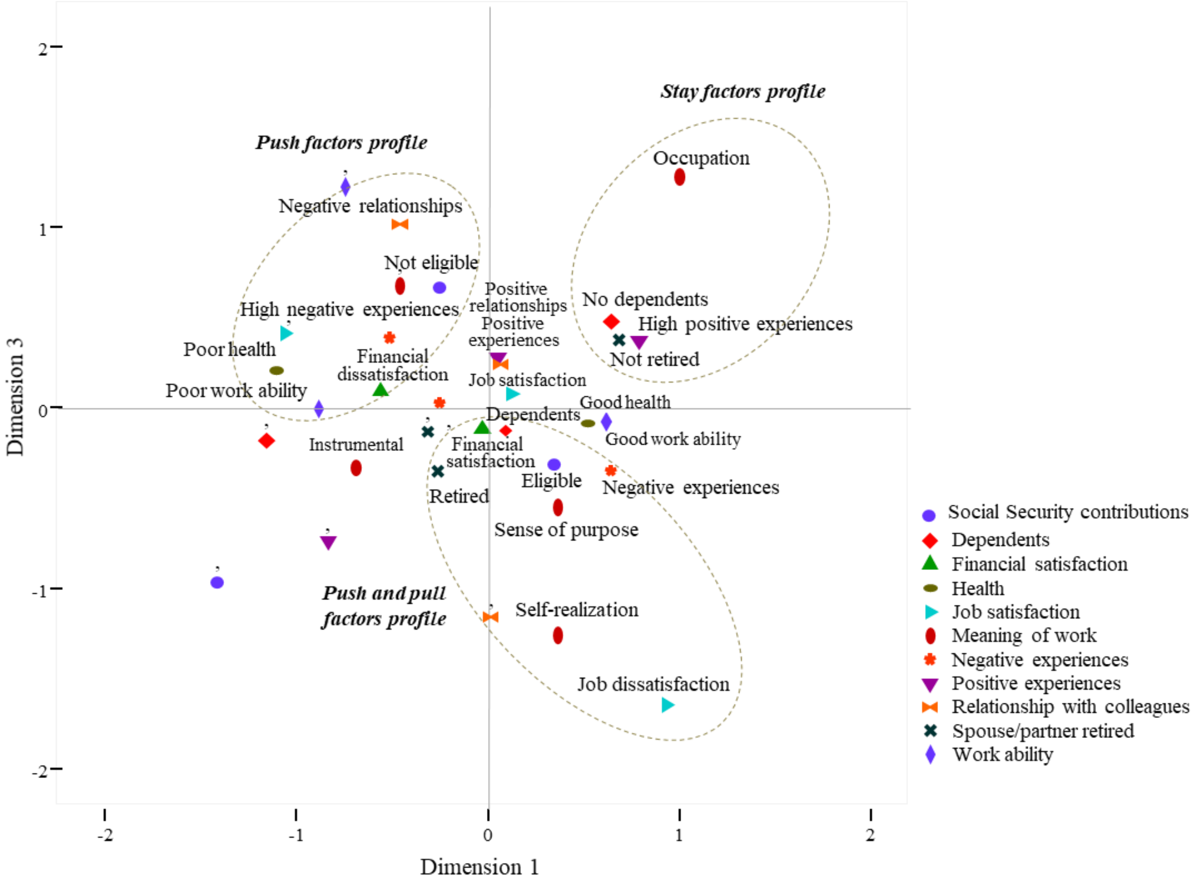
The results of the MCA suggested a three-dimension model to characterize the retirement decision-making process. The discrimination measures and the contributions of the active variables for the three dimensions are in Table 5.2. The discrimination measures in bold represent the variables for which the values were higher (or near) the inertia of each dimension. Regarding the definition of the profiles, dimensions 1 and 3 were used. Although dimensions 2 and 3 showed similar inertia (Table 5.2), dimension 3 was preferred, as the amount of contribution of the selected variables was greater. Thus, from the combination of these two dimensions (dimensions 1 and 3), the findings revealed three profiles that represent different associations among the categories. Figure 5.1 shows the association between the individual and work indicators that characterize the retirement transition.

The first profile, called *push factors* (Cluster 1, 22.0% of the participants), was characterized by a privileged association between negative relationships at work, high negative experiences at work, poor health, poor work ability, financial dissatisfaction, and not being eligible in terms of Social Security contributions. In this profile there was a predominance of negative aspects at both individual and work level that induce workers to retire. The second profile was characterized by an association between negative experiences at work, job dissatisfaction, the work meaning self-realization and sense of purpose, financial satisfaction, being eligible in terms of Social Security contributions, having dependents, and having a retired spouse or partner. This profile was called *push and pull factors* (Cluster 2, 34.1% of the participants) as there were negative aspects pushing people to retirement (e.g., job dissatisfaction) and positive factors that attracted workers toward retirement (e.g., retired spouse or partner). Finally, the third profile, known as *stay factors* (Cluster 3, 43.9% of the participants), was characterized by a privileged association between high positive experiences at work, perceiving work as an occupation, having no dependents, and the spouse/partner not being retired. In this profile the factors that make employment seem more attractive than retirement prevailed.

Table 5.2. Discrimination measures and contributions of the active variables

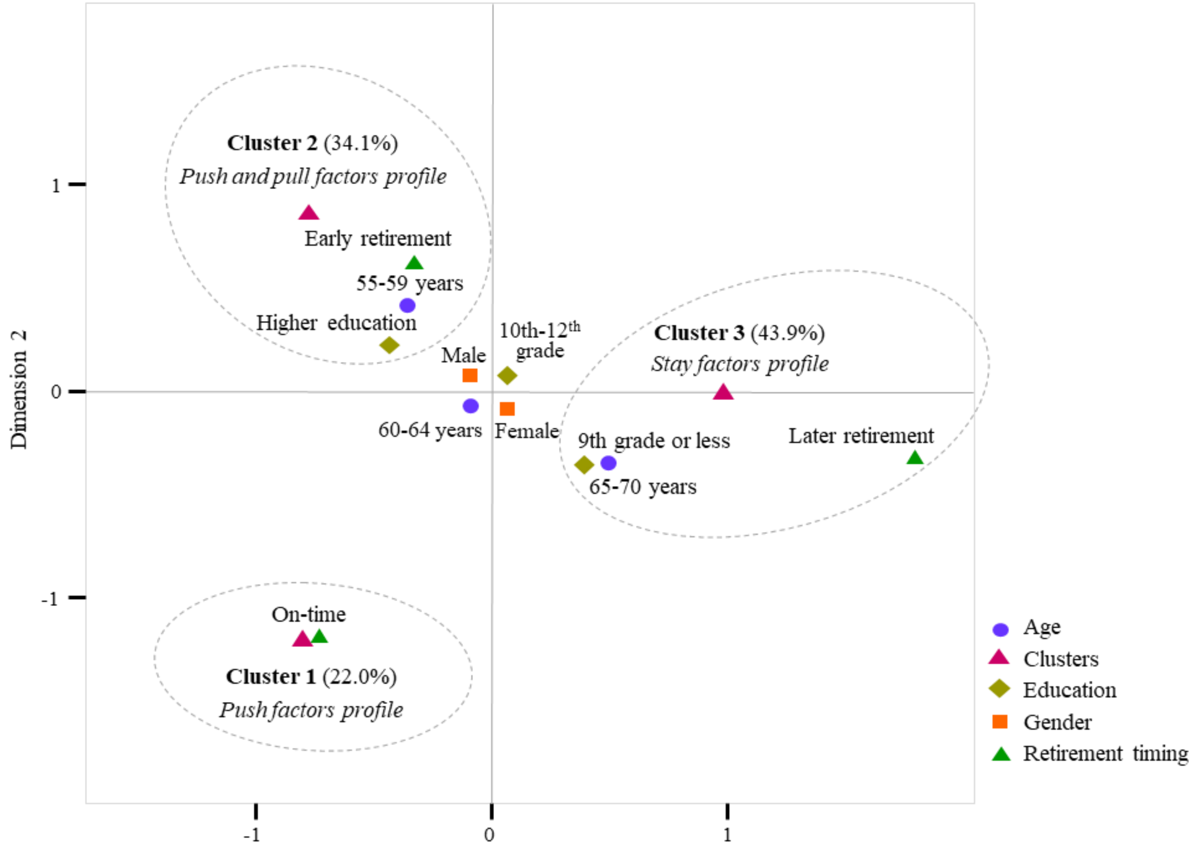
	Dimensions					
	1		2		3	
Active variables	Discrimination measures	Contribution (%)	Discrimination measures	Contribution (%)	Discrimination measures	Contribution (%)
Financial satisfaction	.028	0.95	.119	5.41	.013	0.61
Health	**.574**	19.45	.094	4.28	.018	0.85
Work ability	**.440**	14.91	**.274**	12.48	.077	3.63
Spouse/partner retired	*.211*	7.15	.008	0.36	.067	3.16
Dependents	**.308**	10.44	.136	6.19	.052	2.45
Social Security contributions	.125	4.24	**.300**	13.66	**.193**	9.10
Meaning of work	**.369**	12.50	.026	1.18	**.603**	28.42
Job satisfaction	**.236**	8.00	.041	1.87	**.234**	11.03
Positive experiences	**.386**	13.08	**.391**	17.81	**.233**	10.98
Negative experiences	**.260**	8.81	**.541**	24.64	.108	5.09
Relationship with colleagues	.014	0.47	**.267**	12.16	**.524**	24.69
Active total	2.951	100.00	2.196	100.00	2.122	100.00
Inertia	.268		.200		.193	

Figure 5.1. Topological configuration of the retirement transition profiles



Moreover, Figure 5.2 shows the association between age, education, and gender (demographic variables), clusters (new variable obtained after the clustering), and retirement timing. Cluster 1 was associated with on-time retirement. The demographic characteristics did not differentiate the participants in this cluster. Cluster 2 was associated with early retirement and was characterized by the youngest (55-59 years old) and most qualified (higher education) participants in this sample. Finally, cluster 3 was associated with later retirement and characterized by the oldest (65-70 years old) and least qualified (9th grade or less) individuals in this sample. Gender did not differentiate the participants across clusters.

Figure 5.2. Associations between clusters (according to retirement transition profile), retirement timing, and demographic characteristics



DISCUSSION AND CONCLUSIONS

The present study sought to examine the individual and work indicators that characterize the retirement transition profiles, as well as to group individuals according to these profiles. The results suggest the existence of three different profiles of retirement transition that were associated with different retirement timings (i.e., early, on-time, and later retirement).

Individuals in cluster 1, associated with the *push factors profile*, desired to leave the workforce as soon as they satisfied the eligibility conditions to receive a pension (i.e., on-time retirement). These workers can be seen as “the resistant” as they endured working while they needed it since they experienced several negative aspects in their work (e.g., working long hours, physically and mentally demanding tasks, highly competitive work environment), and perceived poor health and poor work ability. Only financial dissatisfaction and having a career with insufficient contributions to receive an old-age pension were motives to stay at work and retire on-time. Regardless of their age or education, individuals were pushed to retirement to avoid the negative experiences at work and to search for new ways of enjoying their time (e.g., to rest, pursue new hobbies). These results are consistent with previous research on the influence of low job satisfaction, continued economic pressure, and poor health and work ability in retirement timing (e.g., Fisher *et al*., 2016; Topa *et al*., 2009).

Individuals in cluster 2, characterized by *push and pull factors*, were "ready to go" as they desired to leave before the statutory retirement age (i.e., early retirement). These older individuals did not need to continue working since they were eligible for receiving an old-age pension in terms of Social Security contributions, and they were financially satisfied. Despite these being the youngest individuals in the sample, they were the most qualified, which probably contributed to a career with higher salaries and more benefits (e.g., health insurance, company car) (Münich and Psacharopoulos, 2018), and also to their satisfactory financial situation in later life, as explained by the Cumulative Advantage model (Crystal and Shea, 1990; Crystal, Shea, and Reyes, 2017). Furthermore, the family situation pulled these workers to retirement, which is also consistent with previous evidence. Individuals who have a retired spouse, and children or grandchildren of young ages want to spend more time and energy on the private life (Gustafson, 2018; Kubicek *et al*., 2010). These older individuals were also not satisfied with their work and had negative experiences, pushing them to early retirement. Only the meaning of work to these individuals can act as a retention factor. Work provided them with a sense of self-realization (e.g., upgrade skills and knowledge, challenge one's self) and purpose (e.g., add value to society, feel useful to others), feeling that their lives have meaning and for that reason they should stay at work. This idea is supported by previous studies showing that it is especially important for older individuals to perform meaningful work and to find meaning in life (Noonan, 2005; Steger and Dik, 2009). It is likely that when individuals find other activities that meet their sense of fulfillment and purpose (e.g., volunteering), they will leave the workforce to invest their time in these new roles, where they feel that their skills are used and valued (Higginbottom, Barling, and Kelloway, 1993).

Individuals in cluster 3, associated with the profile *stay factors*, showed a preference for later retirement, which conveys the message that "nothing can stop me now". First of all, work is a source of pleasure to these older individuals, as they had high positive experiences such as autonomy, challenging cognitive tasks, or opportunities to learn. As shown by past research, these aspects can be crucial to retain older workers and encourage them to retire later (e.g., Browne *et al*., 2019; Carr *et al*., 2016). Second, work meant being active and occupied, and having a routine, since the life outside the work-context did not attract the individual to retirement (i.e., having no dependents, having a spouse/partner who is still working). These individuals were the oldest and the least educated in the sample, a combination of factors that is associated with lower income throughout careers, which could, in turn, influence the need for working beyond traditional retirement ages (Crystal *et al*., 2017). However, the economic status of these participants did not emerge as a factor crucial to their desire to postpone retirement. In fact, positive experiences at work seem to be one of the key factors in retaining these older workers. It is likely that these older individuals will continue to participate in the workforce until their family and/or work situations change.

The findings of our research corroborate the idea that retirement is a multidimensional and complex process in which different factors have varying degrees of relevance to older individuals and relate to each other in different ways. This multidimensionality and complexity were well captured by MCA and Cluster Analysis, two methods that allowed the identification of different retirement transition profiles taken by different groups of older individuals. Hence, the transition to retirement is a life-altering decision that has different meanings, and results from a wide variety of answers to the question of why people retire.

Limitations and future research

This research may have two limitations. The first concerns the form of retirement analyzed in this study. All interviewees were considering or had already made a transition from full-time employment to full-time retirement (i.e., full-time work one day, retired the next), since this is still the most common form of retirement in Portugal. However, instead of the abrupt retirement, individuals may retire gradually over time by reducing their work hours in a current job, or moving to a less demanding job with a different employer. The different forms of retirement are a vital issue for future research on retirement patterns.

A second limitation is related to the context of the study. Despite the contribution of the findings to better understand the retirement transition in the Portuguese context, we recognize that the categorization process depends on the characteristics of the pension systems across countries (e.g., mandatory retirement, different retirement ages for men and women). For instance, if there is a mandatory retirement age, the relevance of work-related factors in motivating older workers to continue working sharply decreases. Thus, this study should be replicated in different contexts (e.g., countries, jobs) to understand the relative importance of the retirement regulation. Future work could also explore the role of retirement expectations in these retirement transition profiles.

Finally, longitudinal studies would also be an important contribution to understand how the roles of individual and work-related factors change over time for different groups of individuals. Participants could be interviewed, for instance, at three distinct times: about five years before the statutory retirement age, near the statutory retirement age, and five years after the moment of retirement. These three moments would allow researchers to explore future expectations, in the long and short term, as well as a retrospective analysis of the retirement decision-making process.

Practical implications

The changing landscape of retirement contributed to a growing interest of researchers and organizations in the topic, particularly in the identification of the factors that can contribute to extended working lives. There is a growing amount of research demonstrating the importance of hiring and retaining older workers for organizational success (e.g., Ng and Feldman, 2010; Peeters and van Emmerik, 2008; Peterson and Spiker, 2005). However, in practice most organizations remain passive in implementing practices that keep older workers motivated, healthy, active, and productive at work (Conen, Henkens, and Schippers, 2012; Van Dalen, Henkens, and Schippers, 2009). The findings of the present study can help organizations to develop and implement practices tailored to each of the three groups of older individuals.

Workers who feel that they need to stay at work, despite the lack of motives to do so, might benefit from accommodative practices, such as additional leave or reduced workload, and maintenance practices, such as ergonomic adjustments (Bal *et al.*, 2013; Kooij *et al.*, 2014). These practices can reduce work demands, improve working conditions, and prevent health deterioration, contributing to a late-career phase with quality of life. Nevertheless, these individuals who experience losses in their capabilities should also receive special attention from public policies. For cases in which people’s health does not allow them to work, disability pensions can be the only option even if it represents a significant loss of future income (OECD, 2003). Increasing the statutory retirement age without implementing policies to protect workers with health problems can threaten the retirement security of many older workers. At a societal level, a proactive strategy is needed to monitor the health and aging of potential at-risk workers (e.g., chronic patients, individuals in highly demanding jobs), preventing their premature departure from the workforce.

Individuals who desire to retire before the statutory retirement age, due to the forces that pull and push them to retirement, could possibly be encouraged to remain active if they were to find positive experiences at work. Also, as work gives these individuals a sense of self-realization or purpose, both developmental and utilization practices can influence workers’ decisions to postpone retirement (Kooij *et al*., 2014; Kuvaas, 2008). If people are not satisfied with their job, organizations can redesign jobs to enrich the tasks or create mentoring programs, giving workers autonomy and the opportunity to share their knowledge and contribute to the development of mentees' skills. Career management practices such as career counselling or career planning workshops can increase the individual competencies required for a successful performance, as well as provide important information to workers about career paths and promotions (Bagdadli and Gianecchini, 2019). These practices can at the same time enhance individuals' sense of self-realization and purpose, creating a meaningful work experience.

Finally, for those individuals who have already decided to delay retirement, a wide variety of organizational practices can still be essential to promote positive experiences at work. For instance, development practices such as regular training can provide older workers with increased knowledge and skills to take more responsibility in their job, allowing the organization to take advantage of their full potential. It is possible that in the absence of these practices, individuals will no longer have positive experiences, which may lead them to retire earlier than they truly wish. Besides the importance of organizational practices in this late-career phase, such practices were probably important throughout the career of these individuals. A performance evaluation system that provides feedback on current performance (maintenance practice) and on the performance required to achieve a higher job position (development practice), for example, may have provided workers with opportunities to learn and to grow and challenge themselves, contributing to an overall positive experience at work.

The growing diversity of retirement transition profiles requires that organizations develop differentiated practices to meet workers' needs and preferences over time. The ability of organizations to create and implement age-sensitive practices that support workers throughout their careers, especially in the late phase, can influence their intentions and actual retirement timing, fostering longer and healthier working lives.

CHAPTER 6

CONCLUSION

CONCLUSION

The aging of the Baby Boomers, a large and influential generation, triggered the study of age-related processes at work. While growing up, the Boomers in the US experienced distinctive life events (e.g., the space race, Vietnam War, Woodstock) that made them, in the eyes of some researchers and practitioners, very different from previous generations (Strauss and Howe, 1991). Employers and managers understood that it would be necessary to evaluate and identify the values and preferences of Baby Boomers to motivate them at work. Also, the growing number of Boomers in organizations began to spark concern about the future age structure of the workforce, especially with their exit through retirement and the potential loss of talent that would be difficult to replace (Barth and McNaught, 1991; Cappelli, 2005). A changing world of work (e.g., accelerated global competition, increased reliance on technology) has made these issues even more pressing (Burke and Ng, 2006). Hence, a time of fruitful research started with the purpose of discovering how generations and age influence work attitudes and behaviors.

Especially since the work of Kooij and colleagues (2010, 2011), the interest in these topics has grown immensely. On the one hand, research has focused on comparing workers of different ages regarding work-related needs, values, and preferences. While some researchers have attempted to identify generational differences at work (e.g., Beutell and Wittig-Berman, 2008; Cogin, 2012; Twenge and Campbell, 2008), others have invested their efforts in comparing different age groups, particularly the younger workers and the older workers (e.g., Claes and Van de Ven, 2008; Zaniboni *et al*., 2014). On the other hand, researchers have also sought to deepen the knowledge about older workers, their motives, preferences, goals, and experiences at work, and how these needs can be managed to encourage longer careers (e.g., Cheung and Wu, 2013; Kanfer *et al*., 2013; Vasconcelos, 2015).

Despite the great advances in the research on aging at work, there is still much to investigate about the role of age in the relationship between HR practices and work-related attitudes. An important consideration to understand these relationships is to look at individuals from a life-span development perspective, avoiding their categorization into generations or age groups. According to this perspective, the aging process is different for each individual due to the unique experiences they have had, which contributes to greater inter-individual variability over time (Kanfer and Ackerman, 2004; Light, *et al*., 1996). It is therefore understandable that individuals of similar ages (e.g., 25 and 30 years old) have different preferences regarding their jobs or value different practices depending on their needs. Also, individuals of different ages (e.g., 30 and 55 years old) might attach identical importance to certain aspects of the work. Retaining workers of all ages is therefore important to adopt a proactive, flexible, and long-term approach, which ensures that all needs are met throughout individuals' working lives.

Similarly, the heterogeneity of life paths is not always considered in the study of the motivation of older workers to stay active. In fact, researchers and practitioners often suggest organizational measures that target older individuals as an undifferentiated group, neglecting the multiplicity of factors that can push them to retirement or attract them to continue working.

These knowledge gaps guided this thesis. The main goal was to investigate the role of organizations in retaining workers of all ages through their HR policies and practices, while promoting longer and healthier working careers. Considering the values, needs, and preferences of an age-diverse workforce, this work examined the work-related aspects that can contribute to more engaged and committed workers, and thereby make them less likely to leave the organization. Moreover, this thesis focused on late career phases to understand how work factors can support older individuals to postpone retirement.

In this final chapter, we discuss the theoretical and practical implications of this thesis. Then, we present limitations and avenues for future research. We finish this work with a concluding remark about the main contributions of this research.

IMPLICATIONS

Theoretical implications

The first implication of this thesis is its contribution to clarify the role of generations at work, by examining perceived differences, and comparing generational and age differences in work values. Empirical evidence about the topic is mixed since some studies found generational differences at work, but others did not (Lyons and Kuron, 2014; Parry and Urwin, 2011). The results presented in Chapter 2 showed only a few actual generational differences and we offer two possible explanations to "clear the fog" on this matter: stereotypes and age. Stereotypes are widespread in society and influence the expectations that individuals hold about other generations' attitudes and behaviors, but also about their own generation (i.e., metastereotypes) (Finkelstein *et al*., 2013; Perry, Hanvongse, and Casoinic, 2013). The great number of perceived generational differences found in Chapter 2 highlights the role that stereotypes play in workers' and leaders' information processing and decision making. This suggests that it is important to understand how stereotypes affect organizational behavior, even though the actual differences between generations are almost non-existent (Lester *et al*., 2012; Lyons and Kuron, 2014).

These perceived differences can contribute to the proliferation of misconceptions about the preferences of subordinates and colleagues from other generations, which might affect the quality of interpersonal relationships in the workplace (e.g., trust, conflict) and even performance (Schmader, Johns, and Forbes, 2008; Walton, Murphy, and Ryan, 2015).

Individuals' age seems to be more accurate to describe inter-individual differences at work than generations. The variable *age* introduces dynamics to generations, by considering that people change throughout their lives due to the influence of biological, psychological, and social factors. As shown by the findings of Chapter 2, it is therefore understandable that there will be differences within-generations, making these groups less homogeneous than would be expected. For example, Campbell and colleagues (2017) found that work-related attitudes and values change gradually overtime, in relatively linear or curvilinear ways, rather than abruptly from one generation to another.

Together, the results of this thesis suggest that individuals should not be placed in categories assuming that those individuals in the same group share similar values and preferences. In particular, the evidence of Chapter 2 suggests that there are few actual differences between generations in work values, indicating that these cohorts are, after all, more similar to each other than different. Moreover, the results of Chapters 3 and 4 show the importance of having organizational practices that are sensitive to age-related needs and preferences, but are not exclusive or limited to a specific age group, to retain the best talents. The flexibility of these practices is what makes them an adequate response to the idiosyncrasy of the aging process. Findings from Chapter 5 also show that the motives for retirement (e.g., health, work experiences) are of different importance for older workers, and therefore organizations should implement differentiated measures for their retention.

Extensive research has shown that individuals tend to group entities into categories in an automatic way and to use category-based knowledge to better understand human characteristics and the complex relationships that exist in the social life (Devine, 1989). Despite this being an extremely important aspect of human cognition, it also has negative consequences. Individuals strongly believe in categories and tend to show positive bias toward people of their own group in comparison with those from other groups (Turner, 1985; Turner *et al.*, 1987). These perceptions of category-based (e.g., generations, age groups) differences are often inaccurate, and can trigger prejudice and discrimination. As this work shows, brackets are not as powerful at predicting attitudes and behaviors as people believe, and might in fact undermine relationships at work. Let us consider, for example, a manager who thinks that all people "in their twenties" prefer to use technology to communicate and he or she chooses to always communicate with them through e-mail. A 25-year-old worker might value more face-to-face communication, feeling that his/her preferences are not respected, he/she does not belong to the organization, and wants to leave it.

Also, stereotype threat, the situation in which a person is concerned about being judged on the basis of a negative stereotype, can hinder individuals’ sense of belonging, impacting their motivation, trust, and their intention to stay in the organization (Spencer, Logel, and Davies, 2016; Walton *et al*., 2015). For example, if a 55-year-old worker is categorized as a Baby Boomer and negative stereotypes such as being resistant to change and not being technology savvy are associated with the individuals belonging to this cohort (Perry *et al*., 2013), he or she will likely feel less motivated and engaged at work.

This thesis also contributes to the HRM literature by demonstrating that age-diversity practices, a novel construct in the literature, are important to retain workers of all ages and to encourage older workers to postpone retirement. Age-diversity practices are a compromise between general HR practices and specific practices for certain age groups. General HR practices are those that are available to all workers regardless of their characteristics, whereas the latter are usually designed and implemented for older workers. A study from Hennekam and Herrbach (2015) demonstrates that older workers perceive that age-related practices designed only for them are a form of stigmatization, and they prefer HR practices that are available for workers of all ages. As shown in Chapters 3 and 4, age-diversity practices create a supportive work environment for all workers through the implementation of measures that are suitable to different age-related needs. The role of leaders and supervisors is crucial in managing workers of different ages, by being aware of their expectations, and making them feel accepted and adjusted to the team. Also, if workers perceive that they all have access to training opportunities, and are recognized by their skills, knowledge, and experience, they will be more engaged in their job and committed to the organization. Job design should also be considered by managers and employers to accommodate age-related changes, allowing the maintenance of good levels of functioning and the compensation for the loss of some resources. Recruiting workers of different ages can further contribute to the perception of an organization focused on leveraging an age-diverse workforce.

Since age and generational differences at work have been overstated (e.g., Costanza *et al*., 2012; Fairlie, 2013), this work points to the necessity of adopting a life-span development perspective in the creation and implementation of HR practices. General practices are probably not enough to engage workers of all ages, and motivate them to stay in the organization, but specific practices are too much, and can be seen as a potential source of discrimination.

Despite the absence of a direct relationship between age-diversity practices and organizational withdrawal behaviors, an indirect relationship was found in Chapters 3 and 4. The findings emphasize that work engagement and affective commitment are important underlying mechanisms through which organizational practices can influence individuals' intention to stay and the preference for retiring later. As asserted by SET, workers respond favorably to the organizational practices that convey the message that employers care about individuals' well-being and value their contributions (Coyle-Shapiro and Shore, 2007; Cropanzano *et al*., 2017). The currency of exchange of workers to reciprocate the organizational support is increasing levels of engagement and commitment, and as a result increasing motivation to stay in the organization.

Past research has already shown that HR practices, as signs of organizational support, trust, and investment in workers, are key to reduce the intentions of leaving the organization and the labor market (Alfes *et al.*, 2013b; Armstrong-Stassen and Ursel, 2009; Griffeth *et al.*, 2000). This thesis extends knowledge on this topic by showing that age-sensitive, supportive, and inclusive practices, a specific set of organizational practices, can help individuals to cope with the challenges they face at work, especially those caused by age. As shown in Chapters 3 and 4, age-diversity practices are especially important for the engagement of those workers who assign less importance to work in their lives and who experience poor work ability. Such practices can help individuals to invest their physical, cognitive, and emotional resources in job tasks, and mobilize their energy and enthusiasm to better perform their job, even if work does not play a major role in their life. If workers feel that all individuals, regardless of age, are accepted and fit in the team, they will be able to work with more vigor, dedication, and absorption, rather than spending time managing conflict.

These findings are also important for understanding the role of SOC theory in successful aging at work. Since workers are expected to experience more losses at the end of their working life, SOC strategies are required to facilitate the adaptation to their environment (Moghimi *et al.*, 2017). The adjustment of the job to workers' needs may imply, for example, letting them prioritize goals (e.g., focus on the most important), and renouncing some responsibilities to reduce the workload, which is a selection strategy (Bal *et al.*, 2013). Acquiring new skills (e.g., learning a new language) to achieve the most important goals is a compensation strategy that may be possible through proper training (Freund and Baltes, 2002).

The results of this work are also important to the HRM-performance relationship, which has received special interest from researchers (Guest, 1997; Van De Voorde *et al*., 2012). Although this relationship has not been tested in this research, since commitment and engagement are predictors of individual and organizational performance (Kim, Kolb, and Kim, 2013; Riketta, 2002), it is likely that age-diversity practices can influence other work-related outcomes such as performance. Organizations need workers who are dedicated and enthusiastic about their jobs, and who are committed with business goals and values to increase their competitiveness and sustainability.

Finally, this thesis advances knowledge on the diversity of the retirement transition. People's experiences throughout life result in increased heterogeneity in late career, and greater variation in the timing of the retirement transition. Research has shown that there are multiple factors influencing the retirement decision, and that their relevance changes throughout life (Fisher *et al.*, 2016; Wang and Shi, 2014). This thesis also demonstrates the importance of individual and work-related aspects in this process, highlighting that the latter can be modified by the organization to meet the expectations of older individuals. Further, the results of Chapter 5 illustrate the inter-individual variability of the retirement decision-making process through the identification of three distinct profiles of retirement transition. These findings can help organizations to better respond to workers' preferences and needs, with the purpose of encouraging them to delay retirement, but also to better prepare for retirement those workers who choose not to postpone retirement. Thus, this research emphasizes the multidimensionality and complexity of retirement, and acknowledges that older individuals are a more diverse group of people than managers and society may think.

Practical implications

The findings reported in this thesis offer practical implications for organizations and employers, team leaders and practitioners in HRM, and for all the individuals who are responsible for attracting, managing, and retaining an age-diverse workforce. Moreover, the results of this research are important for promoting more sustainable careers in all industries, and both public and private sectors, despite the particularities of each organization.

The results of this thesis suggest that in order to create truly diverse and inclusive organizations, managers should avoid the segmentation of workers into generations or age groups. As proposed by Raymer, Reed, Spiegel, and Purvanova (2017: 167), practitioners should "*cease the practice of providing "generational differences" seminars and trainings that play to popular misconceptions about the "new" generation*". Such programs tend to exacerbate the preconceptions that already influence workers' judgment about colleagues of different ages. For example, a training seminar on generational diversity at work might address the characteristics that are commonly associated with different cohorts, and suggest strategies to deal with these hypothetical differences. However, if individuals have more in common than they might initially think, this type of training may be more harmful than beneficial. On the contrary, training is important to demystify the idea that there are clear differences between these groups in organizations, but that there are above all stereotypical views of other generations and age groups (Perry *et al.*, 2015).

Moreover, the results of this thesis suggest that it is more important to manage generational expectations and stereotypes at work than to design and implement practices that address specific generations or age groups. According to the intergroup contact theory, organizations can promote contact between workers of different ages (Abrams, Eller, and Bryant, 2006) through, for example, team building activities. The purpose of these events is to provide the opportunity for individuals to learn that they share similar motives and values at work, and that their diversity of knowledge and skills can be used for the benefit of the organization. Mentoring programs, for instance, can help organizations to leverage the few age differences at work, as these practices function bi-directionally: in a traditional format, in which an older worker mentors a younger protégée, and in a reversed format, in which older workers can learn from their younger colleagues (Chaudhuri and Ghosh, 2012). Such programs can be even more important in large companies consisting of multiple departments or teams, with different dimensions, structures, leaders, and goals.

Earlier research reports considerable evidence linking HR practices to organizational withdrawal behaviors, and this research showed that organizational practices cannot be universally implemented or limited to a group of workers. The “one size fits all” approach no longer answers to individuals’ goals. From the life-span development perspective, the idiosyncrasy of the aging process, which implies changes throughout life, suggests that workers should not be placed in static age groups to which certain practices or measures are addressed. Age-diversity practices are a set of organizational practices that aim to support workers of all ages, attracting them to the organization, promoting their integration and adjustment, and meeting their needs, preferences, and goals. These practices refer to a fair and suitable treatment regarding recruitment and selection, opportunities for development (i.e., training) and promotion, job design, performance evaluation, recognition, leadership, and socialization.

Recruiting and hiring an age-diverse workforce implies an effort to create an image (internal and external) of valuing diversity, using adequate and accessible instruments to disclose job offers to people of all ages (e.g., specific websites, campaigns, agencies), and defining expertise-based recruitment criteria to avoid the prevalence of negative stereotypes.

Organizations can, for instance, give training to HR managers, leaders, and other potential interviewers who participate in the recruitment process about the stereotypes that people have about applicants, especially age stereotypes (Finkelstein and Burke, 1998). While in some industries there may be a negative bias toward older people, such as technology services, in other industries, such as carpentry, the bias may exist against younger individuals.

Career management should be designed to monitor the development needs of workers, providing access to training and methodologies appropriate to the age differences of trainees. For example, due to a reduced capacity in working memory, older workers may need more time to complete the training tasks successfully (Kubeck, Delp, Haslett, and McDaniel, 1996). However, rather than increasing total training time only to the older trainees, which means making participant age salient, the trainers should give all the individuals more time to complete the tasks. Further, as suggested by Callahan, Kiker, and Cross (2003), video modelling can be used as an effective method to train all individuals, but especially the older ones since this method positively affects self-efficacy and motivation to learn.

Moreover, an important part of career management is promotion opportunities, which should be offered to all workers who demonstrate that they meet the requirements for the job. It is important for the organization to present a long-term career perspective based on the individual's interests, skills, and knowledge. Besides the promotions, there are horizontal career movements for those individuals who do not aspire to assume more responsibilities in their jobs or who have no possibility to do so (Boehm *et al.*, 2013). Therefore, individuals and managers should discuss expectations to define a career plan that is suitable for both parties, and that is sensitive to age-related changes.

Adjusting the work to individuals' needs over time is also an important measure of career management. There are workplace accommodations that can be introduced to ensure that workers are healthy and productive in the long-term. For example, redeployment to an alternative job inside the organization can compensate for performance constraints (Naegele and Walker, 2006). In this strategy, however, it is important to avoid that the individual feels that he or she has lost his/her status or that the worker feels overqualified for the job. Other preventive strategies may include workload reduction, flexible working times and alternative work arrangements, and ergonomic adjustments (Boehm *et al.*, 2013; Truxillo *et al.*, 2015). It is important to highlight that these practices should not be available only to older workers, but to all people in order to prevent health problems and improve productivity. When implementing these measures, it is also important to consider the characteristics of the organization. For example, in small organizations, where financial and material resources often lack, there may be increased difficulty in adjusting the job to individuals' needs (Cardon and Stevens, 2004).

Performance evaluation can be used to identify individuals with potential for promotion, but also to reward their accomplishments. An appropriate assessment should be non-discriminatory for people of all ages, which once again requires being aware of the negative age stereotypes. The widely held beliefs that older workers are less productive than younger workers can negatively influence supervisors' appraisals (Waldman and Avolio, 1986). Also, a study from Kmicinska, Zaniboni, Truxillo, Fraccaroli, and Wang (2016) has shown that younger workers can be the target of an unfavorable assessment from high-conscientiousness colleagues. To overcome this problem, organizations can use multiple sources to evaluate performance, and give training about common stereotypes to those who participate in this process. Additionally, creating an age-supportive system of performance evaluation demands the definition of multiple criteria (e.g., quality and quantity).

Recognizing workers' experience, skills, and knowledge, regardless of their age, is also an important practice to retain a talented workforce (Armstrong-Stassen, 2008; van Dam *et al.*, 2017). Recognition of people's merit may take the form of monetary rewards (e.g., bonuses, profit sharing) and of non-monetary (e.g., healthcare insurance, vehicles). Workers of different ages might prefer different types of rewards. For instance, a 35-year-old worker can choose a health insurance that is extensible to the family, while a 40-year-old worker might prefer to receive the financial bonus. Appreciation may also take a more symbolic form with, for example, the election of the employee of the month or year, or an award for years of exemplary service. Most importantly, recognition should be based on workers' accomplishments and all rewards need to be available to all workers (Boehm *et al*., 2013).

Finally, the role of direct supervisors in managing workers of different ages is very important to make them feel accepted in the team, and to promote socialization among colleagues. If workers of all ages do not feel they fit in the department or team, subgroups can emerge (younger vs. older workers), which can generate conflicts, hamper cooperation, and impair team effectiveness (Wegge *et al.*, 2012). Age diversity can have positive effects on performance outcomes when there is a positive team climate in which individuals feel comfortable about showing their knowledge and skills. According to Wegge and colleagues (2012), training the supervisors about age stereotypes and age discrimination at work can reduce conflicts and increase innovation. Also, develop initiatives in which individuals can socialize and get to know each other would also be important to create an inclusive work environment.

In some situations, however, it may be important to direct some organizational practices to a particular target. For example, if the organization has a very young age structure, it can only create a truly age-diverse workplace by attracting older workers. This means that for some organizations and at specific times it might make sense to implement specific recruitment and selection strategies to employ older individuals, such as asking current workers to share information about job vacancies with their networks or hiring an external agency to lead the process. However, this situation should be the exception, not the rule.

Age-diversity practices should be integrated in a broader and comprehensive strategy of age management, providing a work environment where each individual is able to reach his or her potential. Such practices should be different but complementary and implemented systematically in order to increase organizational performance (Saridakis *et al.*, 2017). When implementing these practices, organizations should take into consideration their characteristics and context, and develop the measures that best fit their needs and goals in a sustainable manner. It is also necessary to take into account several features that influence workers' perceptions about the HRM. Sanders and Yang (2016) suggest that it is important that workers perceive intention of management in the implementation of HR practices. Therefore, the effectiveness of age-diversity practices depends on the capacity of managers to show that these practices are distinctive, consistent, and consensual (Sanders and Yang, 2016).

Organizational practices are therefore a mechanism to retain workers of all ages, by reducing their turnover intention and increasing the desired retirement age. However, at a macro level, public policies are required to promote workers' health and safety while they age. The campaign "Healthy Workplaces for All Ages" led by the European Agency for Safety and Health at Work (EU-OSHA) was an important initiative to call the attention of governments to the challenges of an aging workforce regarding occupational health and safety. Also, the EU has been making policy recommendations to assess training needs in later life and to increase individuals' qualifications (European Commission, 2018). Adult education and training programs funded by the EU, such as online and distance learning courses (including e-learning and blended learning) for working adults, bring considerable benefits for individuals, organizations, and society (European Commission, 2018). In the context of extending working lives, the results of this research demonstrate the importance of continuing to implement national policies that improve working conditions and promote more sustainable careers for workers of all ages.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

One of the main limitations of this work is the cross-sectional nature of the four empirical studies. Cross-sectional data provide important information about age-related differences at a specific moment in time, but do not allow distinguishing between various effects associated with age, such as period and cohort (Costanza *et al.*, 2017). Age, period, and cohort (APC) are three different effects that can influence intra and inter-individual changes over time. Age is usually conceptualized as an individual variable, whereas period and cohort are treated as contextual variables (Bell and Jones, 2014). The aging process occurs according to the combination of these three effects: when people are young, they are influenced by a set of remarkable life events (generation effect); people are affected by a particular historical time period, regardless of their age (period effect); and throughout life, individuals change according to distinctive developmental factors (age effect) (Yang, 2008). They are difficult to isolate and need to be carefully interpreted in research.

Despite age-heterogeneous cross-sectional studies being the dominant paradigm in the literature, future investigation should invest in longitudinal designs to understand the interdependence among aging-related processes. During the period of this thesis, it would not be possible to carry out a longitudinal study to distinguish these three effects. In the future, the analysis of individuals over time through longitudinal studies would permit the separation between fixed effects and random effects, helping to identify time-varying elements in research.

To conduct longitudinal studies in Portugal, it would be necessary to create a national observatory of aging and employment to investigate the factors contributing to successful aging at work across the life span. The purpose of this observatory would be to collect and analyze demographic information in combination with individual factors (e.g., health, housing conditions), work variables (e.g., job characteristics, working conditions), and public policies (e.g., changes in the legislation about retirement), throughout the lives of a representative sample of Portuguese individuals. This project would make it possible to analyze individuals' past experiences to better understand the cumulative effects of work on late-life decisions, including retirement. This study would also allow researchers to go beyond retirement intentions, comparing individuals' expectations and plans about retirement with the actual retirement behavior. Additionally, different forms of retirement transition (e.g., part-time employment, self-employment) not analyzed in this research could be considered. By bringing together researchers, practitioners, and the society, such a project would shed valuable light on the antecedents and the impacts of longer working careers. The publication of the findings in reports could increase social awareness about these topics and foster the development of initiatives that promote active and healthy aging at work.

A second limitation has to do with the samples of these studies, which are not representative of their universe as it is not possible to have access to a sampling frame due to data protection. These non-representative samples may introduce selection bias in the investigation (e.g., individuals who retired early due to health problems and did not participate in the study), which does not allow the generalization of the findings. Although these were non-representative samples, there was an attempt to depict the structure of the universe with a deliberate sampling for heterogeneity in terms of certain criteria, such as individuals' age and occupation, the industry and the sector (public and private) in which they work.

In the study reported in Chapter 2, a proposal for the definition of Portuguese generations was presented based on the scarce literature on the topic. Despite the lack of evidence on generational differences in this study, it would be interesting to explore in greater depth the historical, social, and cultural events that may characterize Portuguese society in the twentieth and twenty-first centuries, with the aim of defining a more accurate generational classification for the Portuguese context. Future research could thus reexamine the impact of this new classification on work values, as well as on other important work-related attitudes and behaviors.

In Chapters 3 and 4, age-diversity practices were assessed through individuals' perceptions about the existence of such practices. An interesting complementary measure would be to ask participants how much they value these practices. In their research, Pinto and colleagues (2014) included two measures about HRM practices: one related to workers' perceptions about what practices exist in the organization where they work, and another referring to the importance attached by workers to each practice. They found that the scores for the importance of all HRM practices were greater than the scores for the existence of these practices. Thus, future research should also assess the value attributed by workers to age-diversity practices. It is possible that some practices are more important to individuals' retention because they satisfy their needs of affiliation (e.g., being accepted in the team), self-esteem (e.g., being recognized), or self-realization (e.g., having more responsibility after a promotion) than others (e.g., recruitment). The information about the most valued practices can provide a starting point for employers and managers who wish to implement age-diversity practices in their organizations.

In this research the focus on perceived practices (i.e., workers' perceptions) rather than actual practices (e.g., reported by HR managers or employers) is due to their predictive ability of several work-related outcomes (Kehoe and Wright, 2013). People perceive and interpret organizational practices subjectively, which elicits attitudinal, cognitive, and behavioral reactions. However, to better understand the role of age-diversity practices in organizational withdrawal behaviors, researchers should also consider investigating actual practices in the future. To accomplish this goal, a case study could be an appropriate method. Researchers could analyze documents about the HR practices that are available in the organization (e.g., internal reports), interview the top management, and survey workers from the HR department. A questionnaire could then be applied to all workers to examine the influence of the age-diversity practices implemented by the organization on different outcomes.

Among the outcomes that could be studied, an important one is performance. Performance was not examined in this research project, but it should be considered in future investigation. In a case study design, objective measures of performance, both individual (e.g., performance evaluation results) and organizational (e.g., profits, sales), could be available (Bommer, Johnson, Rich, Podsakoff, and MacKenzie, 1995; Singh, Darwish, and Potočnik, 2016). In investigations where it is not possible to identify the organization, objective measures may not be available, and instead subjective measures have to be used. For individual performance, there are self-report and hetero-report (e.g., supervisor ratings) measures (Bommer *et al.*, 1995). For organizational performance, managers can be asked to rate the organizations' profitability or innovation efforts (Singh *et al.*, 2016).

The last limitation of this research is that the studies do not consider the particularities of each industry. In the studies reported in this thesis, individuals with different professional occupations and from different industries were included, which makes the sample more heterogeneous. However, there are several characteristics of the industry in which the organization operates that can affect the workers' careers in the long-term, such as the type of service provided, the features of the clients, work schedules, and levels of physical and cognitive demands. In the health and care sector, for instance, work is organized in shifts, which implies that physicians, nurses, and other technicians have to work during the night. For example, in some industries unions play a very important role in the decisions of organizations with the negotiation of collective labor contracts (e.g., transportation, hospitality, insurance and banking). These characteristics could limit organizations' actions in changing work characteristics or implementing HR practices. Hence, future studies should explore the role of organizational practices in retaining workers of all ages in specific sectors.

CONCLUDING REMARK

The attraction, recruitment, and retention of talented workers is increasingly important for organizations' sustainability in a context of an aging population and business globalization. Implementing HR practices that meet workers' preferences, needs, and goals throughout life is an important strategy to promote longer and healthier careers, which benefits both organizations and individuals.

This thesis has shown that it is important to consider the aging process at work from a life-span development perspective, in which there are age-related changes in abilities, attitudes, and behaviors. The findings reveal that there are only a few inter-individual differences in what people value at work. For that reason, workers should not be placed in static homogenous groups (generations or age groups) to which certain measures are addressed by HRM. Instead, the practices created and implemented by the organization should be flexible, non-discriminatory, and supportive of workers of all ages. These age-diversity practices can create a more engaged and committed workforce, which will lead to lower turnover intentions and to the preference for retiring later.

Finally, this thesis also demonstrated the heterogeneity of older individuals in the motives that influence their desire for early, on-time, or later retirement. Retirement transition profiles result from multiple factors, including those related to work aspects and that can be modified by managers and employers to encourage the extension of working lives. Thus, organizations play a crucial role in fostering successful aging at work, but also outside of this context. As the writer Madeleine L'Engle said "*the great thing about getting older is that you don't lose all the other ages you've been*".

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APPENDICES

APPENDIX A – SCALES USED IN THE STUDY REPORTED IN CHAPTER 2

I Value (adapted from Lester *et al.*, 2012)

How important would it be to you for each of these characteristics to be present in your workplace?

1. Teamwork
2. Independence/autonomy
3. Security/stability
4. Professionalism
5. Flexibility allowed
6. Formal authority
7. Openness to new technology
8. Face-to-face communication
9. E-mail communication
10. Social media
11. Clear structure/organization
12. Empowered participation (voice your opinion)
13. Learning/training opportunities
14. Pleasure/fun (at work)
15. Recognition

Generations Value (adapted from Lester *et al*., 2012)

Baby Boomers: To what extent do you think a person between the ages of 52-70 would want each of these characteristics to be present in their workplace?

Generation Y: To what extent do you think a person below the age of 32 would want each of these characteristics to be present in their workplace?

Generation X: To what extent do you think a person between the ages of 33-51 would want each of these characteristics to be present in their workplace?

1. Teamwork
2. Independence/autonomy
3. Security/stability
4. Professionalism
5. Flexibility allowed
6. Formal authority
7. Openness to new technology
8. Face-to-face communication
9. E-mail communication
10. Social media
11. Clear structure/organization
12. Empowered participation (voice your opinion)
13. Learning/training opportunities
14. Pleasure/fun (at work)
15. Recognition

APPENDIX B – SCALES USED IN THE STUDY REPORTED IN CHAPTER 3

Age-diversity practices (adapted from Boehm *et al*., 2014; Sousa *et al*., 2019)

1. Employees are developed (i.e., training) and advanced without regard to the age of the individual.
2. Managers in my organization demonstrate through their actions that they want to hire and retain an age-diverse workforce.
3. I feel that my immediate manager/supervisor does a good job managing people of different ages.
4. It is easy for people from diverse age groups to fit in and be accepted.
5. All workers have the same opportunities to get an adequate evaluation, regardless of their age.
6. The work is adjusted to workers' needs over time.
7. Experience, skills, and knowledge of workers are recognized, irrespective of their age.

Work centrality (Lobo *et al*., 2016)

1. Work plays the most important role in my life.
2. Work is at the center of my life.
3. I live to work.
4. The best moments of my routine happen during work.
5. The most important events of my life involve my work.
6. My personal choices are constrained by work.
7. I prefer to perform work-related tasks over other tasks.
8. I prefer to perform routine tasks in the workplace than outside work.
9. Work activities give me pleasure.
10. Activities outside work are boring.

Work engagement (Schaufeli *et al.*, 2006)

1. At my work, I feel bursting with energy.
2. At my job, I feel strong and vigorous.
3. I am enthusiastic about my job.
4. My job inspires me.
5. When I get up in the morning, I feel like going to work.
6. I feel happy when I am working intensely.
7. I am proud on the work that I do.
8. I am immersed in my work.
9. I get carried away when I'm working.

Affective commitment (Allen and Meyer, 1990)

1. I would be very happy to spend the rest of my career with this organization.
2. I really feel as if this organization's problems are my own.
3. I do not feel like "part of the family" at my organization.
4. I do not feel "emotionally attached" to this organization
5. This organization has a great deal of personal meaning for me.
6. I do not feel a "strong" sense of belonging to my organization.

APPENDIX C – SCALES USED IN THE STUDY REPORTED IN CHAPTER 4

Work ability (adapted from McGonagle *et al*., 2015; Tuomi *et al*., 1998)

1. How do you rate your current work ability to meet physical demands?
2. How do you rate your current work ability to meet mental demands?
3. In two years, how do you expect to be your work ability to meet physical demands?
4. In two tears, how do you expect to be your work ability to meet mental demands?

APPENDIX D – MATERIALS USED IN THE STUDY REPORTED IN CHAPTER 5

Instrument – Interview script for retirees

Introduction: Good morning/afternoon Mr./Mrs. My name is Inês and today I would like to talk to you about retirement. We are conducting a study to understand the motives that influence individuals' decision about when to retire. All information you provide will be kept strictly confidential. Your name, or any other name that you mention, will not be identified at any time. Thank you for your time and cooperation. Before we start, I would like to ask your permission to record this interview.

1. Demographic information

Gender	
Age	
Education level	
Retirement age	

2. When did you begin to think about retirement? Why?
    - 2.1 Since that time and until retirement, how much time has passed?
    - 2.2 In what aspects did you think?
    - 2.3 At that time, how did you expect retirement to be?
    - 2.4 Has retirement been what you expected?
    - 2.5 What did you gain with retirement? What did you lose?

3. How was your financial situation when you began to think about retirement?
    - 3.1 How did your financial situation evolve until you made the decision to retire?

4. At that time, how was your health?
    - 4.1 Did you feel you would be able to work until retirement age?

5. Tell me about your family. What was your household like at that time?
    - 5.1 When you began to think about retirement, did you talk to anyone?
    - 5.2 Which people were important in your decision?

6. When you decided to retire, where did you work? What was your job? What were your tasks?
    6.1 Did something happen at work that influenced your decision about retirement?
    6.2 At that time, what aspects of your work motivated you to continue working? And what aspects made you want to retire?
    6.3 Before retiring, would you like to have performed another job?
    6.4 How was your last day of work?

7. We finished our interview. Would you like to add some information to what you said? Do you have any questions about the study?

Conclusion: I would like to thank you for your availability and cooperation. If you want to know more about the investigation you can call me or send me an e-mail.

Instrument – Interview script for workers

Introduction: Good morning/afternoon Mr./Mrs. My name is Inês and today I would like to talk to you about retirement. We are conducting a study to understand the motives that influence individuals' intentions about when to retire. All information you provide will be kept strictly confidential. Your name, or any other name that you mention, will not be identified at any time. Thank you for your time and cooperation. Before we start, I would like to ask your permission to record this interview.

1. Demographic information

Gender	
Age	
Education level	

2. When did you begin to think about retirement? Why?
    - 2.1 Have you been thinking about retirement?
    - 2.2 What do you expect about retirement?
    - 2.3 What do you expect to gain with retirement?
    - 2.4 What do you think you can lose with retirement?

3. How was your financial situation when you began to think about retirement?
    - 3.1 How important is your financial situation to decide about the retirement timing?

4. At that time, how was your health?
    - 4.1 How do you currently evaluate your health? Do you think that your health status is related to your work?
    - 4.2 Do you feel you will be able to work until retirement?

5. Tell me about your family. Did your household changed from the day you began to think about retirement until today?
    - 5.1 What does your family think about your intention to retire?
    - 5.2 Who can help you to decide?

6. When you decided to retire, where did you work? Where do you work now?
    - 6.1 What is your job? What are your tasks? Can you describe me your workday?
    - 6.2 Which aspects of your work motivate you to continue working? What aspects make you want to retire?
    - 6.3 Before retiring, would you like to perform another job?
    - 6.4 Did the organization inform you about retirement?
    - 6.5 How do you imagine your last day of work?

7. We finished our interview. Would you like to add some information to what you said? Do you have any questions about the study?

Conclusion: I would like to thank you for your availability and cooperation. If you want to know more about the investigation you can call me or send me an e-mail.

Category system

Categories	**Subcategories**	**Definition**	**Example**
Financial satisfaction	Financial dissatisfaction	Financial situation perceived as unsatisfactory; expenses exceed income	“A very low salary, and in retirement it will probably be a little less.” (P7)
	Financial satisfaction	Financial situation perceived as stable, comfortable; income exceeds expenses	“I feel I am privileged because I have a beach house, I have a country house, I have a house in the city…!” (P16)
Health	Poor health	Health problems (diagnosed by the physician or not); feeling tired, stressed	“I have a lot of bone problems.” (P20)
	Good health	No health problems; physical, mental and social well-being	“I think I’m fine... I’m a very healthy person.” (P37)
Work ability	Poor work ability	Lack of resources (cognitive, emotional, physical) to perform the job successfully	“There was a time, not so long ago, when I realized that I was no longer able to do certain tasks.” (P40)
	Good work ability	Possess resources (cognitive, emotional, physical) to perform the job successfully	“What drives me to continue working is that I feel the vigor, the ability to perform my job as a lawyer.” (P38)
Job satisfaction	Job dissatisfaction	Dislike the job and the tasks	“The main reason [I left] was because I stopped doing the job I liked.” (P13)
	Job satisfaction	Enjoy, appreciate the job and the tasks	“I really like what I’m doing.” (P2)
Positive experiences at work	Positive experiences	Challenging tasks; autonomy; task identification – mentioned 1 to 2 times	“A job that was very intense, with different tasks (…), interacting with interesting people... It was very pleasing.” (P29)
	High positive experiences	Challenging tasks; autonomy; task identification – mentioned 3 times or more	

Negative experiences at work	Negative experiences	Repetitive tasks; physically and/or psychologically demanding job – mentioned 1 to 2 times	“They expect a teacher to do [several tasks] that really go beyond our competence (…). Classes are bigger and bigger (…) and this requires a physical effort, psychological (…). It’s exhausting.” (P19)
	High negative experiences	Repetitive tasks; physically and/or psychologically demanding job – mentioned 3 times or more	
Relationship with colleagues	Negative relationships	Negative interactions; highly competitive environment; conflicts; envy	“It is a very competitive work environment.” (P33)
	Positive relationships	Good work environment; companionship; support from colleagues and supervisors	“My colleagues have helped me a lot, my supervisor, things that I will never be able to thank.” (P40)
Meaning of work	Instrumental	Salary that grants access to goods and services; financial independence	“From the moment (…) I dial four numbers at the ATM, and my salary is there… I work anywhere.” (P8)
	Sense of purpose	Contribution to society; help others; adds value to something	“My commitment to society. (…) It was a commitment to the cause.” (P23)
	Self-realization	Fulfillment; realize one’s potential; opportunity to learn and grow	“It is the sense of realization.” (P24)
	Occupation	Have something to do; occupy the time	“While working, I’m busy, I’m distracted.” (P21)
Spouse/partner retired	Not retired	Participants’ spouse or partner is still working	“While my wife is working, I am going to stay at work.” (P5)
	Retired	Participants’ spouse or partner is retired	“My husband is home already retired.” (P39)
Dependents	No dependents	There are no people who depend on the participant	“I live alone.” (P29)
	Dependents	People who depend on the participant either economically or in terms of care (children, grandchildren, parents, etc.)	“I have an aunt living with me, 89 years old. She has Alzheimer’s disease. (…) I have to change her diaper, feed her (…) It’s exhausting.” (P1)

Social Security (SS) contributions	Not eligible	Participants do not meet the criterion of the number of years of SS contributions to receive a full pension	"I had twin daughters, and I chose to stay home, so I am missing several years of contributions." (P4)
	Eligible	Participants meet the criterion of the number of years of SS contributions to receive a full pension	"I currently have 44 years of uninterrupted contributions to Social Security." (P17)
Retirement timing	Early retirement	Intention (or decision) to retire before the statutory retirement age	"I anticipated it, and I retired at 60 years old, when at the time the [statutory] age was 63 years old." (P15)
	On-time retirement	Intention (or decision) to retire at the statutory retirement age	"When the law allows it, I will retire, and enjoy that time." (P6)
	Later retirement	Intention (or decision) to retire after the statutory retirement age	"I prolonged my working life for some time (…), I wanted to think better about what to do next." (P30)