



INSTITUTO
UNIVERSITÁRIO
DE LISBOA

"I'm not what you think I am": The Power of Threat and Challenge Responses to Negative Age-Based Meta-Stereotypes on Thriving at Work and Spillover Effect

Sara Raquel Alves de Oliveira

Master in Social and Organizational Psychology,

Supervisor:

Doctor Miriam Rosa, Integrated Researcher and Invited Auxiliary Professor,
Iscte - Instituto Universitário de Lisboa, Cis_Iscte

Co-Supervisor:

Doctor Eduardo Oliveira, Auxiliary Professor,
Faculty of Economics, University of Porto

October, 2022



CIÊNCIAS SOCIAIS
E HUMANAS

Social and Organizational Psychology Department

Faculty of Economics, Organization and Human Resources Section

"I'm not what you think I am": The Power of Threat and Challenge Responses to Negative Age-Based Meta-Stereotypes on Thriving at Work and Spillover Effect

Sara Raquel Alves de Oliveira

Master in Social and Organizational Psychology,

Supervisor:

Doctor Miriam Rosa, Integrated Researcher and Invited Auxiliary Professor,
Iscte - Instituto Universitário de Lisboa, Cis_Iscte

Co-Supervisor:

Doctor Eduardo Oliveira, Auxiliary Professor,
Faculty of Economics, University of Porto

*Para a Inês,
A pessoa mais importante do (meu) mundo.*

Acknowledgement

Aos meus. Mãe, Pai, Mana.

Se eu fosse um avião, vocês eram as asas.

Se eu fosse uma abelha, vocês eram a flor.

Se eu fosse um comboio, vocês eram a linha.

Se eu fosse uma casa, vocês eram a fundação.

Se não fossem vocês, não era eu.

À minha amiga e colega de trabalho. Marta Pinto.

Foste o guarda-chuva nas tempestades académicas.

Foste o raio de sol nos momentos mais cinzentos.

Foste o elevador nos dias em baixo.

Sem ti não era a mesma coisa.

À minha orientadora e agora amiga. Miriam Rosa.

Foste a águia-mãe que mesmo quando eu não piava, soube quando abrir as asas.

Foste a luz que indicou o caminho.

Obrigada pelas partilhas. Todas.

Ao meu coorientador. Eduardo Oliveira.

Foi um poço de conhecimento, do qual eu pude ir buscar água.

Por último, mas certamente não menos importante. Obrigada a mim.

Obrigada à Sara do presente, do passado e do futuro.

Obrigada a todas as Saras que habitam em mim.

Obrigada por seres como és e não teres desistido.

Abstract

Age diversity in the workplace is no longer an option or an ethical duty, but necessary for the economic functioning of societies. However, age-based negative attitudes (ageism) persist, with important consequences. This research is composed of two studies with distinct but related objectives. Study 1 aimed to identify, in a Portuguese sample (N=123), which age-based stereotypes are most associated with each age group. A reluctance to attribute negative stereotypes to both younger and older people was observed. Study 2 aimed to assess work-related consequences of ageism for the target, namely the relationship between the activation of age-based threat and challenge responses at work on thriving at work and negative spillover, through the longitudinal intensive daily diary methodology. Data were collected during seven workdays via participants' cellphones (N=44, 301 observations). Although no variation across time was found, hindering multilevel longitudinal analyses, a negative association between threat response and thriving at work was found, and a positive association with negative spillover. Additional analyses showcased value in considering thriving dimensions (learning and vitality) separately. Challenge was not a predictor of either thriving or spillover unlike expected. Although preliminary and limited, the findings of the study can serve as a guide for future studies, and for organizations to rethink the benefits of diversity and design more age-inclusive processes. Overall, it aims to bring awareness to the topic of workplace ageism and its potential harmful effects both at work and outside.

Keywords: Ageism, Age-Based Meta-Stereotypes, Reactions to Age-Based Meta-Stereotypes, Thriving at Work, Negative Spillover, Daily Diary Studies

APA Classification Code: 2900 Social Processes & Social Issues; 3000 Social Psychology; 3020 Group & Interpersonal Processes; 3600 Industrial & Organizational Psychology; 3660 Organizational Behavior

Resumo

A diversidade etária no trabalho já não é opcional ou um dever, mas necessária para o funcionamento económico das sociedades. No entanto, as atitudes negativas baseadas na idade (idadismo) persistem, com importantes consequências. Esta investigação é composta por dois estudos com objetivos distintos mas relacionados. O Estudo 1 visava identificar, numa amostra portuguesa (N=123), quais os estereótipos etários mais associados a cada grupo etário. Observou-se relutância em atribuir estereótipos negativos tanto a pessoas mais jovens como a mais velhas. O Estudo 2 visava avaliar consequências do idadismo para o alvo, nomeadamente a relação entre ativações de ameaça e de desafio, e o *thriving* no trabalho e *spillover* negativo, através de dados recolhidos diariamente via *app*. Os dados foram recolhidos durante sete dias de trabalho através dos telemóveis dos participantes (N=44, 301 observações). Embora não tenha existido variação ao longo do tempo, impedindo análises longitudinais, encontrou-se uma associação negativa entre ameaça e prosperidade, e uma associação negativa com o *spillover*. Análises adicionais salientaram mais-valia em separar as dimensões de *thriving* (aprendizagem e vitalidade). O desafio não foi um preditor de *thriving* ou *spillover*, ao contrário do esperado. Embora preliminares e limitadas, as conclusões do estudo podem servir de guia para estudos futuros, e para as organizações repensarem os benefícios da diversidade e conceberem processos mais inclusivos em termos etários. Globalmente, pretende sensibilizar para o tema do idadismo no trabalho e os seus potenciais efeitos nocivos, tanto no trabalho como fora dele.

Palavras-chave: Idadismo, Meta-Estereótipos Etários, Reações a Meta-Estereótipos Etários, *Thriving at Work*, *Spillover* Negativo, *Daily Diary Studies*

Código de Classificação APA: 2900 Processos Sociais e Questões Sociais; 3000 Psicologia Social; 3020 Processos de Grupo e Interpessoais; 3600 Psicologia Industrial e Organizacional; 3660 Comportamento Organizacional

Contents

Acknowledgement	iii
Abstract	v
Resumo	vii
Chapter 1	1
Introduction	1
1.1. Objectives	4
Chapter 2	7
Literature Review	7
2.1. Diversity	7
2.2. Age Conceptualization in Organizations	9
2.3. Stereotypes and Meta-Stereotypes	11
2.4. Ageism	12
2.5. Young, Middle Age and Older Adults	14
2.6. Ageism Against and In Favor of Younger Workers	14
2.7. Ageism Against and In Favor of Middle-Age Workers	17
2.8. Ageism Against and In Favor of Older Workers	19
2.8. Reactions to Negative Meta-stereotype Activation: Threat and Challenge	21
2.9. Possible Consequences	24
2.9.1 Thriving at Work	24
2.9.2 Spillover Effect	26
Chapter 3	29
Methodology	29
3.1 Additional Analysis	29
3.1.1 Preliminary study (Study 1)	29
3.2 Main Study (Study 2)	34

3.2.1 Quantitative Methodology	34
3.2.2 Surveys	34
3.2.3 Experience Sampling Method (ESM) or Ecological Momentary Assessment (EMA)	35
3.2.4 SEMA3	36
3.2.5 Participants	36
3.2.6 Procedure	37
3.2.7 Instruments/Measures	38
Chapter 4	41
Results	41
4.1 Reliability	42
4.2 Multilevel Confirmatory Factor Analysis (MCFA)	43
4.3 Confirmatory Factor Analysis (CFA)	44
4.4 Linear Statistical Models (Regressions)	46
Chapter 5	49
Discussion	49
5.1 Practical Implications	53
5.2 Limitations and suggestions for future studies	54
5.3 Conclusions	57
Sources	59
Bibliographic References	61
Annexes	83

Table Index

Table 3.1 – Characteristics most associated with each age group by comparison of means	32
Table 4.1 – Between Reliability	42
Table 4.2 – Intraclass Correlation Coefficient	43
Table 4.3 – One-Factor CFA	45
Table 4.4 – Two-Factor CFA	45

Figure Index

Figure 1.1 – Conceptual Model	5
Figure 2.1 – Aging Conceptualization	10
Figure 2.2 – Descriptive Stereotypes about Younger Workers (Portugal)	17
Figure 2.3 – Age Meta-Stereotype Activation Model	22
Figure 2.4 – Thriving at Work Model (Antecedents and Outcomes)	25
Figure 4.1 – Example of a Multilevel Model with Two-Level	41

Acronyms' Glossary

CFA – Confirmatory Factor Analysis
CFI – Comparative Fit Index
CHALL – Challenge Response
COVID-19 – Corona Virus Disease
EMA – Ecological Momentary Assessment
ESM – Experience Sampling Method
EURAGE – European Research Group on Attitudes on Age
ICC – Intraclass Correlation Coefficient
INE – Instituto Nacional de Estatística [Statistics Portugal]
MCFA – Multilevel Confirmatory Factor Analysis
OCDE – Organization for Economic Co-operation and Development
RMSEA – Root Square Error of Approximation
SEMA3 – Smartphone Ecological Momentary Assessment
SPILL – Spillover Effect
ST – Stereotype Threat
TLI – Tucker-Lewis Index
TW – Thriving at Work
TWL – Thriving at Work (Learning)
TWV – Thriving at Work (Vitality)
USA – United States of America
WHO – World Health Organization

CHAPTER 1

Introduction

By 2020, the Portuguese population aging rate had increased 43.5% (PORDATA, 2021a). According to Statistics Portugal (Instituto Nacional de Estatística [INE], 2020) it is predicted that, by 2080, the working age population will decrease by 2.4 million people. Perhaps, for these reasons, population-aging was classified as the challenge for the 21st century and placed on the United Nations Organization 2030 Agenda for Sustainable Development (Papavasileiou, 2017). In addition, even with the mortality associated to the COVID-19 pandemic, life expectancy has increased to 81.06 years old, a rise of approximately 2 months (INE, 2021). The youth are entering the labor market later, as they remain in the education system longer. For example, in 2015, 349.658 students were enrolled in higher education in Portugal, and this expectancy has been growing exponentially since then, with 433.217 students enrolled in the current year (PORDATA, 2022a). On the other hand, older workers have seen their permanence in the labor market prolonged (PORDATA, 2022b). This, however, saw a slightly, not impactful, decrease due to the mortality rate inflated by COVID-19 pandemic (Jornal de Negócios, 2022).

For employers and other stakeholders to adapt to ongoing changes in the business world, organizations need to re-evaluate their policies and practices towards an age-diverse workforce. The success of organizations, and today's economic society, depends on the successful integration of multiple generations into the work context (Organization for Economic Cooperation and Development [OCDE], 2020). Demographic ageing crisis is a problem that cannot be ignored and, therefore, it is important to know what conditions are necessary to integrate, maintain and make the different age groups cooperate in the work context.

Due to the unstable post-pandemic economic situation and current war in Ukraine, intergenerational conflicts may be further inflated, since people may assume employment as a scarcer resource (North & Fiske, 2015). For example, in the need to lay off human resources, both the youngest workers struggle with fear of being laid off, not by a meritocratic logic, but by organizational seniority (i.e., more experience of the older workers). Such reasoning may contribute to explain why young population registers a higher unemployment rate. The disparity is remarkable, since in 2020 the unemployment rate for young people under 25 years old was 22.6 %, while for adults between 55 and 64 years old it was 5.9% (PORDATA, 2021b). On the

other hand, older people struggle as they feel technologically disadvantaged especially in sectors in the wake of Industry 4.0 (Mariano et al., 2020; Shamim et al., 2016).

Therefore, the present study intends to analyze the impact of ageistic workplaces on both professional and personal related matters (Thriving at Work and Spillover) by studying workers Reaction to Negative Age-Based Meta-Stereotypes.

First, the notion of age is a social construct (Giles & Reid, 2005) and is, therefore, independent of biological age to some extent. As such, age groups are socially constructed, partitioning the continuum of objective age. A person (regardless of their biological age) will more or less identify with one of the socially defined age groups, thus classifying themselves as belonging to such a group (ingroup), and consequently singling out the groups to which they do not belong (outgroups). Secondly, the various age groups can be "afraid" of each other, because they assign their group and others with different characteristics, whether positive or negative. Such characteristics may stem from stereotypes associated with each age group (Tajfel & Turner, 1986).

From the moment we use stereotypical characteristics in an excessive, justifiable, and generalized way, we incur in prejudice and/or discrimination. Ageism is a stereotypical bias, prejudiced, and may also be discriminative in the name of age. Despite not being a recent term (Butler, 1969), it is still understudied and under-disseminated in the media (Castro, 2015). Contrary to what was initially thought, ageism can take on multiple directions, and can affect individuals of any age and not only older people (Fowler & Gasiorek, 2020). As such, it is an insidious type of prejudice and discrimination that can affect everyone transversally, from the day we are born to the day we die (Castro, 2015).

Finally, from the moment we are aware of the stereotypes associated with others, we also have a unique perception (more or less accurate with reality) of how we think others judge of us, the acclaimed meta-stereotypes. How do we deal with what we think others think of us?

Stereotypes are shared beliefs (Bouazzaoui et al., 2016) and blatant discrimination is often fostered, driven and most severe when in a group (e.g., bullying) (Jones et al., 2017), but the way we react to negative meta-stereotypes is very unique, as it is an intra-individual process (Truxillo et al., 2015). The literature distinguishes two types of reactions to negative meta-stereotypes: threat or challenge. The stereotype threat is characterized by the fear of conforming the meta-stereotype and the challenge reaction by the motivation not to conform the negative meta-stereotype (Finkelstein et al., 2015).

Never in the history of mankind has there been such intergenerationally in the workplace (Simões & Gouveia, 2008), previously average life expectancy was lower (INE, 2021) and

although children started working at an early age, they were seen as "mini adults" (Ilias & Akter, 2017). In this sense, it is important to recognize the benefits of age diversity and inclusion, as well as learn how to take advantage of it. Intergenerational tensions can be inflated by work environments with ageist beliefs that will consequently intensify negative age-based meta-stereotypes (Finkelstein et al., 2015). Although meta-stereotypes are based on an individual's awareness of the stereotypes associated with their belonging group(s), meta-stereotypes may not reflect reality (Finkelstein et al., 2012). From this assumption, it is important to know the impacts that reaction to negative age-based meta-stereotypes (Threat or Challenge) has in our lives.

Work has various meanings, as well as a greater centrality in people's lives and identity. It is notably a space for social contacts, where recognition and self-realization are paramount (Vendramin & Valenduc, 2014). The feeling of thriving at work may be one of the factors that ensure this recognition and self-realization, since it promotes a sense of learning and vitality (Kleine et al., 2019) promoting innovative capacity, proactivity, and better performance (Prem et al., 2017). It was, thus, chosen as a key outcome of well-being – or lack thereof – related to consequences of meta-stereotypes.

Also, for the reason of high identification with work (Vendramin & Valenduc, 2014), it is important to understand whether workers are able to separate negative events or activations of negative age-based meta-stereotypes occurring at work from the family sphere. The negative spillover effect to family life is characterized by the overflow of negative emotions and maladjusted behaviors into the family context, consequently disrupting the work-life balance (Bakker & Demerouti, 2013). The confinement resulting from the COVID-19 pandemic brought this discussion to the fore, since remote workers reported greater difficulty in "separating" work from personal life since workers were unable to disconnect from work, thus disinvesting in the family sphere (e.g., little quality time with family and friends) (Público, 2020; Sábado, 2021).

Finkelstein and collaborators (2015) developed an Age Meta-Stereotype Activation Model, where the authors suggest age meta-stereotyping activation as an event, since its activation is a triggered state (contrary to a fixed trait). One's reactions (threat or challenge) arises from that activation. So, the authors suggest future researchers to do an experience sampling methodology to capture meta-stereotyping as an event, rather than evocating retrospective memory that is recall bias susceptible.

The EURAGE (European Research Group on Attitudes to Age) international research group who are specialized in ageism, propose a multi-level approach of this topic. The authors

propose that ageism is structured from the outside to the inside. Ageistic stereotypes are shared beliefs from one's society and culture and are passed on and on since a young age. Therefore, contextual variables (e.g., economic, and political systems) shouldn't be ignored since they shape people's beliefs on age and aging. So, the researchers propose a Multilevel Model to structure the data, where individuals (level 1) are nested within societies (level 2), stating that observations at level 1 are clustered within level 2 (Vauclair et al., 2014).

These examples show us the importance of treating different variables with different methodologies. As such, state variables (i.e., dynamic, and volatile) should be measured over time with experience sample methodologies to capture slightly variances within-person across time (Beal, 2015; Kalokerinos, 2020). In order to do this, multilevel methodologies should be considered since the variables are clustered in one another. Inspired by these two researches above, we propose a model contemplating the Reactions to Negative Age-based Meta-stereotypes (Threat and Challenge), since they arise from the age-based meta-stereotype activation (i.e., an event) that and challenge will be measured through items that indirectly evoke emotional states as for example "Hoje fiquei preocupado(a) (...)" [Today I was worried (...)] and "Hoje andei motivado(a)" [Today I was motivated (...)]. As dependent variables, Thriving at Work and Negative Spillover Effect were contemplated since they complement each other by assuming bidirectionality between work-family (Bakker & Demerouti, 2013; Brofenbrenner, 1977), but also, Spillover is considered a very unstable variable over time, resulting from emotional states (Wood & Michaelides, 2016).

1.1. Objectives

In line with stated above, this Master's Dissertation intents, by resorting to a quantitative analysis through the intensive longitudinal daily diary research methodology, answer the following question:

- How do different reactions to the activation of the negative age-based meta-stereotype (Threat or Challenge) impact Thriving at Work and Negative Spillover Effect?

As it is assumed by the conceptual model, by having in mind a short-term period of seven days, the reaction (Threat or Challenge) to the activation of the age-based negative meta-stereotype will impact differently on the Thriving at Work and Spillover effect.

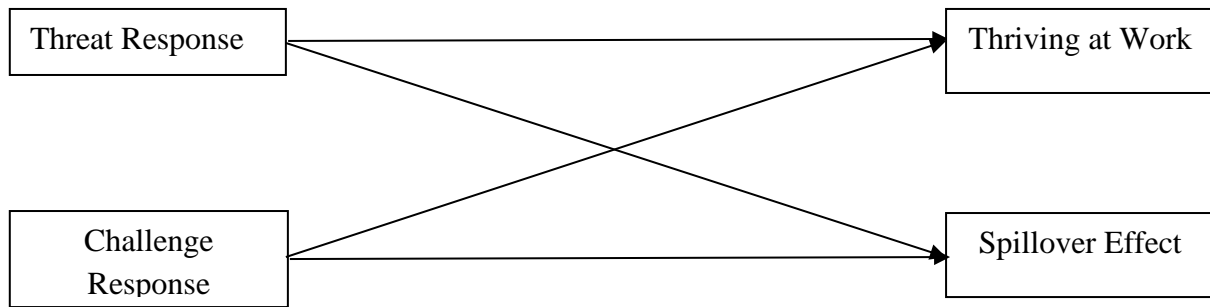


Figure 1.1 – Conceptual Model

The present research brings a methodological approach still novel in the study these constructs, since most studies in the area are conducted in artificial and controlled environments (i.e., laboratory) being few those that were conducted *in loco*, in this case, in organizational environments or, at least, in more ecologically valid ones (Kalokerinos et al., 2014; Posthuma & Campion, 2009).

By way of this masters' dissertation, we seek to find answers that inform employers on how to better understand and deal with age diversity, clarifying the role that negative age meta-stereotypes can cause. Above all, this research aims to draw attention and allow reflection on the importance of inclusive policies in organizations, and, in general, across all fields and ramifications of our society.

This Master's Dissertation is divided into five parts. The present chapter introduced the topic doing a state to the problem, the second chapter reviews the literature, identifies the variables to be studied and tested, and elaborates the hypotheses aimed at filling the gaps found in the literature. In the following chapters, the third and fourth, the analysis of the data collected is carried out and the theoretical and practical implications are discussed. Finally, reference is made to the main conclusions and limitations of this research, as well as some suggestions for future research.

Literature Review

2.1. Diversity

Globalization is a phenomenon of integration, interconnection, and even economic, social, cultural, and political interdependence of world societies. Many experts believe that globalization has been going on since the dawn of human existence; however, in general, this phenomenon was accentuated in the 19th century with industrialization, the development of railways, televisions, the telegraph, the post office and newspapers, among others (Kim & Bhawuk, 2008). The speed of globalization has been increasingly accentuated with technological development, and despite its benefits (e.g., creation of the European Union), problems have also emerged, namely: how do you deal with the largest mass of individual and cultural diversity that ever existed? (Kim & Bhawuk, 2008).

Today, there is a fully interdependent global economy, and with it has also come greater competitiveness. The market is tight, and you have to know how to move in it. In this sense, organizations have been changing strategically, adapting to new trends such as the successful inclusion of workers of different age groups, the integration of ethnic minorities, the adoption of gender equality policies, among others, understanding their benefits for the workplace (Roberson, 2013).

Like the chicken and egg paradox, culture and individuality seem to go around in circles, but which comes first? Does culture make us who we are and, therefore, our individual differences? Or is it people, and their individual differences, that make a culture? Some authors (McCrae, 2000) consider that culture comes before the *self*, and therefore, individual differences can be reduced to cultural ones. On the other hand, others (Shweder, 1973) argue that culture is conceptually different from the individual characteristics of the individuals that make up those cultures.

Thus, individual diversity has to do with characteristics, whether visible or not, inherent to the individual (e.g., sex, gender, age, sexual orientation, skin color, among others) which, although they may be related to culture, as may be the case with religion, can also be more or less independent from it (Urlick, 2017).

Diversity that can be perceived with the “naked eye”, described in the literature as superficial-level diversity, is, therefore, more likely to drive prejudice, stereotyping and discrimination, especially if these characteristics circumvent normativity. Diversity, if poorly

managed in the work context, can lead to absenteeism, turnover intention, conflicts and affect the organizational commitment of workers targeted by “naked eye” diversity (Jehn et al., 1999).

Deep-level diversity is not directly observable and has to do with differences in attitudes, beliefs, and values (Harrison et al., 1998, *cit in* Lambert & Bell, 2013) arising from the unique life experience of each human being, always obviously influenced by the social, cultural, and economic context in which individuals are inserted. They are also considered personality traits by some authors (Martins & Milliken, 1996).

The literature suggests that a work context with a diversified human capital – both in deep and superficial level diversity – is beneficial, as it encourages creativity and the ability to innovate (Østergaard et al., 2011). Currently, many organizations are investing in training and skills development in this area. Not only do organizations see the commitment to diversity as a long-term investment, but also, with work expatriations becoming increasingly common and necessary – due to globalization – they want them to be successful.

Human Resource Management trends, in line with market needs, have changed dramatically over the years. In the 70s and 80s, the trend was to retire earlier in order to make room for the younger ones, but this is impossible nowadays due to demographic aging (Naegele et al., 2017). In addition to this reason, today the maxim is to invest on diversity, because an older worker cannot be replaced by a younger one, nor vice versa. Each one adds a unique value due to their age difference, which will be reflected in different contributions (Kalwij et al., 2010).

It is possible to derive better benefits and results from a heterogeneous team, especially if under an inclusive leadership and work context. This is because the mere existence of diversity is not self-sufficient in creating beneficial results and innovation. In fact, if not well managed, it can even be harmful. Inclusion at work is defined by the existence of equal opportunities for participation, as well as encouraging participation of all members (Shore et al., 2018). As Vernā Myers (2015), a recognized diversity activist advocates “*Diversity is being invited to the party; inclusion is being asked to dance*”.

According to the Contact Hypothesis advocated by Allport (1954), the most effective way to ensure that differences are well managed, as it reduces prejudice and allows the acquisition of competences in diversity, is through interpersonal contact between groups. This effectiveness is enhanced if the groups are under four conditions, which are 1) cooperating interdependently (e.g., at a task at work) 2) to achieve a common goal, 3) having the support of institutional authorities (e.g., from the organization, Human Resources policies etc.) more specifically, organizations must encourage positive contact and sanction pejorative contact.

Finally, 4) the contact must be from “equal to equal”, that is, it may not have the same effect if it acts on a subordinative-superordinate combo of very distant hierarchical positions (e.g., collaborator-manager). In fact, it may have the opposite effect and enhance prejudice since it can trigger threat feelings from disadvantage position member (Paluck et al., 2019).

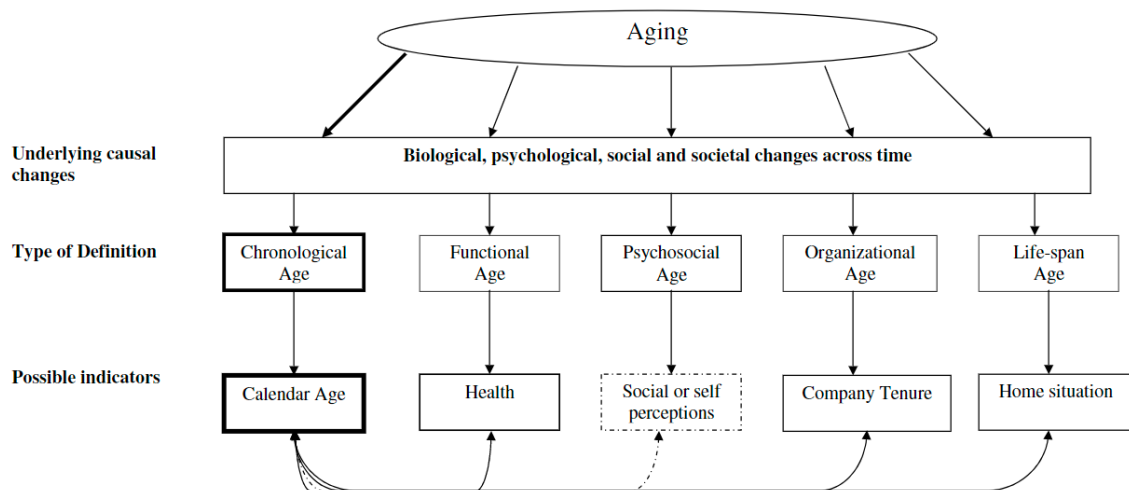
2.2. Age Conceptualization in Organizations

The concept of age has been changing throughout human existence. Being “old” in the Middle Ages is very different from being “old” today. This demonstrates that aging is much more than a biological constant.

Currently, the present paradigm, regarding this theme, was established by the capitalist perspective, where work is the central focus from which all ramifications of society emerge, even the basic values by which it is governed. Thus, age thresholds – being “too young” or “too old” – were demarcated by the age considered to be the most productive for working – the ‘working age’ (Kohli, 1988).

While it is popularly said that “age is just a number”, age has been formulated as a multidimensional construct. Looking at age only from a chronological perspective is no longer enough (Settersten & Mayer, 1997) because age, more than a number, is a social construct with meanings associated by culture (Burr & Dick, 2017).

For the work context, the literature (Sterns & Doverspike, 1989) already exposed different conceptualizations of age, namely: 1) Chronological Age: Biological age resulting from the years lived; 2) Functional Age: Age reflected in performance, resulting from motor and cognitive abilities; 3) Psychosocial Age: Age reflected in self-image and social perception of age, where both have a bidirectional relationship; 4) Organizational Age: Age influenced by the age conceptualizations implicit to the employer, which are usually based on years of service, career evolution, obsolescence of skills, among other factors; 5) Lifetime Age: Age referring to changes, normatively associated with a life stage (see also De Lange et al., 2006).



Note. Adapted from De Lange et al. (2006)

Figure 2.1 – Aging Conceptualization

The concept of age is also linked to the idea of generation, and in a period where intergenerational differences are more evident than ever (for example, in technological matters) (Simões & Gouveia, 2009), and it is inevitable that these will come together in the context of work, it is important to understand this concept. Generations are nothing more than the human need to group, categorize, stereotype in order to explain and more quickly predict behaviors. In this sense, generations are a way of categorizing and perceiving the social structure and are defined by the year of birth of an individual that occurs in a specific historical time and space, which is representative of social, political, economic, and technological criteria experienced in the early years of life and that will be decisive for his constitution as an adult (Mannheim, 1952).

Like organizational age prospects, what can be considered older in one industry can be considered young in another, as age is a construct dependent on contextual factors, one of which is the type of industry or sector (Segers et al., 2014). However, there is a proposed and so-called universal generational classification formed by Baby Boomers (1946-1963); Generation X (1964-1980); Generation Y or Millennials (1981-2001) and Generation Z (2002-forward). However, Papavasileiou (2017) considered, considering the Portuguese historical and political context, the following generations: 1) *Estado Novo* Generation (1947-1968); 2) Carnations Generation (1969-1986); 3) Europeanized Generation (1987-2002).

In work contexts increasingly advocated by these three generations, it is believed that such discrepancies can result in conflicts, even more, if inflated by a work environment characterized by ageist beliefs (Finkelstein et al., 2015). North and Fiske (2015) also mentioned

the potential increase in intergenerational conflicts in situations of economic crisis, since having or not having a job puts individuals in competition mode. Still dealing with the consequences from both 2008 and 2012 economic crisis, younger workers report having difficulty accessing the labor market, and older ones leaving due to the increase in the retirement age (Bidwell et al., 2013).

Although having a certain age or belonging to a certain generation can partially explain an individual attitude and behavior proclivity, the truth is that it does not fully explain it. Some studies have already shown that, contrary to popular belief, generational differences are more imposed than real (Lester et al., 2012). In fact, according to the Theory of Social Identity (Tajfel & Turner, 1986), it is known that by being aware of the generational classification, the individual will tend to identify with the ingroup (their generation) rather than the outgroup (other generations), and, therefore, will find ways to classify other generations as more different (Ramos & Sousa, 2017).

2.3. Stereotypes and Meta-Stereotypes

A stereotype is a shared belief about a particular group, usually a generalised idea sometimes drawn from normative information, other times based on misconceptions about that particular group (Stangor & Lange, 1994). We end up, in this attempt to categorise and simplify others (Hamilton, 1979), to fall into the creation and/or maintenance of stereotypes. We then develop a belief that is very far from being proven, that all people who are part of a category are the same, have the same characteristics. This belief is what turns a categorisation into a stereotype. Stereotypes have a cultural origin, it is a socially shared function of justifying attitudes and prejudices (Posthuma & Guerrero, 2013). Although stereotypes are inherent to human nature, and are useful for making decisions and predicting behaviour, they can also be related to prejudice and discrimination. Indeed, stereotypes (cognitive aspect), prejudice (affective aspect) and discrimination (behavior) are parts of the same chain. (Stangor & Lange, 1994).

Individuals are not permeable to stereotypes, even when they do not agree with them or try to retract or deny their impacts, they all possess a degree, greater or lesser, of awareness of stereotypes (Finkelstein et al., 2015). Existing awareness about stereotypes concerning their ingroup(s), the individual expects to be stereotypically evaluated based on these stereotypes. Consequently, this belief leads individuals to imagine how others perceive them, considering what they think others think of them (Finkelstein et al., 2013).

Therefore, a meta-stereotype is characterized by the very particular and subjective beliefs that an individual belonging to a group - usually negatively stereotyped - thinks others hold about their own group, and consequently about themselves (Mikilon et al., 2016). The activation of meta-stereotypes can positively or negatively affect the person who holds it, and, consequently, the relationships established with the person or group implicated (Vorauer et al., 2000), regardless of the reaction to the activation of the meta-stereotype.

2.4. Ageism

It was first defined by Robert Butler in 1969 as “the prejudice of one age group in relation to other age groups” (Butler, 1969, p. 243). Later, Butler (1980) reformulated the concept as “systematic stereotyping and discrimination against older people, such as racism and sexism based on skin colour and gender”. Although in the first instance ageism was described as unidirectional, today it is categorized as multidirectional, since it can be for or against any age. It was also initially conceptualized as a unidimensional concept although, later, Butler restructured its definition and assigned cognitive and behavioral components to it, in addition to the already contemplated 'affective component' which is based on prejudice.

Today, the literature defines ageism as a set of stereotypes (cognitive component), prejudices (affective component) and discrimination (behavioral component) against or in favor of an individual or group due to their age (Ayalon & Tesch-Römer, 2017). The cognitive component concerns the set of ideas, information, and beliefs about a particular social object; the affective to the evaluative process from which more positive or negative feelings arise and the behavioral to the intention to act in a certain way towards the social object (Branch et al., 2005).

Ageism can manifest itself in a negative or positive way. The Stereotype Content Model (Fiske et al., 2002) advocates stereotypes as bi-dimensional in the 'Sociability-Competence' spectrum, where being positively evaluated in one does not invalidate being negatively evaluated in the opposite. Within this binomial, competition and status act as positioners within the stereotype spectrum. Which means, in the specific case of groups targeted with ambivalent stereotypes, high levels of perceived competition are reflected in low levels of sociability and vice versa, and competence is judged by perceived status, indicating that individuals with high levels of status are perceived as more competent and vice versa (Fiske et al. al., 2002). In this way, the theory states four quadrants that differ in terms of feelings towards the ingroup and

outgroup(s). For example, high sociability and low competence, very commonly associated with the older adults, arouse paternalistic feelings such as pity and sympathy (Fiske et al., 2002).

This theory came to demonstrate that, contrary to what Allport and collaborators (1954) initially thought, it is not only negative stereotypes that have an impact on antipathy towards a group. Also, as with racism and sexism, ageism can take a benevolent or hostile form. Hostile ageism, as the name suggests, is more blatant and, therefore, more easily detected. In its content, it assumes a blatantly negative form and is highly disapproved nowadays (Martin & North, 2022). Just as racism and sexism "evolved" taking other forms to meet historical and societal changes, ageism went through the same process taking subtle (more acceptable) forms, which, although apparently positive, still derive from ageist attitudes. Thus, benevolent ageism is often not perceived as negative, but rather as an act of respect or attention, especially when dealing with older people (Cherry & Palmore, 2008). For example, thinking "older adults should be protected" or "insisting an older adult take the seat you have offered, even after they have refused" (Cary et al., 2016) although it's an apparently positive gesture, have equally negative consequences, as it is directly associated with hostile ageism allowing its perpetuation (Cary et al., 2016). Also, in the same logic, contrarily to what expected, positive meta-stereotypes can also be harmful once they transmit a desirable behavior leaving the target with fear of not achieving such high standards, so, there is a chance positive meta-stereotypes can provoke stereotype threat as well (Finkelstein et al. 2015).

As Social Psychology explains, attitudes influence behaviors, and therefore, from ageist attitudes to discriminatory behaviors is only a very thin limit. The behavioral intention, included in the attitudes, can often not be brazen, and therefore, hide it's ageistic content. For example, assigning only basic tasks may come from the idea that the young person is not capable (Redman & Snape, 2006).

Age is one of the essential characteristics for primary categorization, together with sex and race (Fiske & Neuberg, 1990), however, ageism is the one that transversally everyone can experience (Cruikshank, 2009), even thus, it is the least talked about, even in the media, because it is considered less burdensome and frequent, due to the benevolent forms it can take (Tse et al., 2010). Nevertheless, ageism is a complex construct that compels cognitive, emotional, and behavioral issues, of an explicit and implicit nature, with positive or negative impacts and that can be evidenced at the micro, meso and macro levels (Iversen et al., 2009). Due to its scope, ageism has been increasingly in the sights of national, European, and international institutions which integrate projects and launch campaigns against ageism (Jornal de Notícias, 2021; World Health Organization [WHO], 2021). An important focus on prevention and intervention is

assumed by these institutions not only because of its transversality, that is, literally everyone can suffer from ageism, but also due to the negative social consequences and for the well-being of individuals, which can compromise the permanence of these individuals in working age.

2.5. Young, Middle Age and Older Adults

With average life expectancy increasing substantially, the very conceptualization of age and the perspective of “new” and “old” is constantly changing (Burr, 2015). In the medieval time, an individual aged 40 could be reaching the end of his/her life, while currently, “65 is the new 50” (Rose, 2010). But also, the very perspective of “new” or “old” depends on the evaluator who makes the judgement, as demonstrated by the study by Davidovic and collaborators (2007), where children, between 10 and 16 years old, considered that an “old man” was between 36 and 80 years old ($M = 63$). Nurses, aged between 20 and 47 years old, considered it to be between 50 and 75 years old ($M = 60$). Inherent in the evaluator's judgment is also their own relationship with age (i.e., identification with his chronological age) which is therefore influenced by multiple factors impregnated by culture.

As discussed above, the conceptualization of age can be complicated due to its multidimensionality and context dependence. For this reason, in order to carry out this research, participant's biological age variable was treated as a continuous one, since participants might be negatively impacted by putting them within an age range if they do not categorize themselves and/or identify within that age range (Levy & Macdonald, 2016).

2.6. Ageism Against and In Favor of Younger Workers

Ageism against or in favor of young people is still neglected, little talked about and very little studied when compared to ageism towards the older adults. Also, regarding the work context, the picture is the same, and this is reflected in the current inclusion policies, which only apply to workers from middle age onwards (Gargouri & Guaman, 2017).

Such inclusion policies, although extremely important, end up reinforcing discrimination in other ways, subtly inciting reverse ageism (Gargouri & Guaman, 2017). Reverse ageism, like reverse racism and sexism, describes prejudice or discrimination against members of a majority group in favor of members of a disadvantaged minority. It can be done, for example, through measures described as positive discrimination (e.g., affirmative action measures such as quotas). Basically, it is about the awareness of the inequality between groups which is tried to be filled by the praise of the minority group and despising the majority in order

to balance the inequalities between the groups. It turns out that “the other side of the coin” does not resolve the crux of the issue and may further incite inequalities and rivalries between groups (Labini & Zapperi, 2007; Raymer et al., 2017). It is theorized that, since the older population was the first to be considered in ageism studies, it is suggested that this population is the most negatively affected, but in the work context, young people report a greater perception of age discrimination than older workers (Marchiondo et al., 2016).

Young people have faced the consequences of ageism not only in terms of access to the labor market, since – especially for their first job – inferior working conditions are offered (Carmo et al., 2014), as well as unpaid internships (Lawton & Potter, 2010). But they also have greater difficulty in keeping their jobs compared to older workers, since in case of need for dismissal, they will usually be the first affected in a logic not of meritocracy, but of organizational seniority (O’Dempsey & Beale, 2011 *cit in* Blackham, 2019).

Even in a work context, young people can continue to experience the negative effects of ageism through peers, generating negative experiences at work caused by discriminatory behaviors, which can be hostile or benevolent (Roberts et al., 2004). Although the general impression is that this population does not suffer stereotypically, Finkelstein and colleagues (2013), report that, targeting this age group, only 48% of stereotypes are positive. Conversely, young, and middle-aged people attributed a total of 73% of positive stereotypes to older people, and young and older people attributed a total of 85% to middle-age people. Therefore, in contrast to what is commonly believed, young people experience high levels of discrimination at work (Marchiondo et al., 2016) because they are globally seen as unfit for the world of work for not having the skills considered “professional” (Raymer et al., 2017). This tendency increases if they are in hierarchical positions with greater responsibility (e.g., leadership, security forces) (Collins et al., 2009; Redman & Snape, 2006).

Reverse ageism is a vicious circle. Although belonging to a generation comprises positive and negative aspects, group members will have a tendency to favor their ingroup and negatively evaluate those in the outgroup, since negative information is more prevalent in memory than positive (Arango-Kure et al., 2014). In this case, young people, when they perceive this negative appraisal about themselves, through the activation of meta-stereotypes, or, when they feel it, through discrimination, will prescribe these stereotypes, and consequently will validate the beliefs arising from reverse ageism, leading the older adults to enter a cycle of self-confirming prophecies, further solidifying their ageist beliefs (Raymer et al., 2017). Human beings seek to confirm what they already believe, therefore, everything that can go against what we believe has much more weight and captures our attention more quickly. Another side of this

confirmation bias is to discredit information that does not meet our expectations. Thus, the self-confirming prophecy is nothing more than a bias of maintenance of previous beliefs (Voss et al., 2017).

The stereotypes used to describe young people are mostly negative. Some of the most mentioned are “inexperienced”, “lazy”, “unmotivated”, “immature”, among others (Finkelstein et al., 2013). Specifically, regarding the professional scope, young workers are seen as individualistic, impulsive, and less committed to work when compared to older workers (Raymer et al., 2017). However, empirical data has debunked these stereotypes, demonstrating that the productivity and performance levels of younger workers are equivalent to those of older workers (Sturman, 2003) as well as their levels of commitment (Raymer et al., 2017).

It was to be expected that, in modern societies, the older workers would be the most discriminated in the professional context, since the modernization of work and the acceleration of the market imposed by capitalism reinforces the deterioration associated with aging (Kohli, 1988). However, despite the existence of some positive stereotypes associated with young people (i.e., “energetic”, “enthusiastic” and “tech-savvy”) (Finkelstein et al., 2013), being in line with the need that this modernization and streamlining impose, curiously what is observed is the opposite effect, i.e., the work domain is where youth reports being the most discriminated (Vauclair et al., 2015).

A very interesting project, entitled Age at Work, focuses on prescriptive stereotypes (i.e., “should-based” expectations about groups based on their age). Nevertheless, descriptive stereotypes were also gathered. The project reveals which descriptive stereotypes are most associated with young Portuguese in the work context (Project, n.d.). The word cloud (Figure 2.2.) from the project demonstrates that the most mentioned stereotypes were “creative”, “inexperience”, “precarious”, “ambition”, “dynamic” and “energetic”. The stereotypes are in line with the US scenario also described by the project and by some authors (Finkelstein et al., 2013), although the Portuguese scenario presents, at first sight, more positive stereotypes than the United States of America (USA) context (Age at Work Project, n.d.). Projects of this nature are very important not only because they expand studies of ageism to young people, as well as to the Portuguese context, but also because descriptive stereotypes are the main predictors of meta-stereotypes (Vorauer et al., 1998). The more we know about stereotypes the more we might know about meta-stereotypes.



Note. Adapted from Schmitz et al. (2021)

Figure 2.2 – Descriptive Stereotypes about Younger Workers (Portugal)

2.7. Ageism Against and In Favor of Middle-Age Workers

Regarding this age group, there is a lack of studies on ageism (Kite et al., 2005). From the existing studies, some support the target position of this group in relation to this type of discrimination (Bratt et al., 2020; Nelson, 2005), but most refute this position (Calasanti, 2016; Garstka et al., 2005; Gullette, 1998). Most studies explain that being in middle age is a favorable position, as they are in the “middle” not fitting in as either the “younger” or “older”, middle-aged individuals can benefit from a status of corporate power.

This issue is explained to us by the Social Identity Theory (Tajfel & Turner, 1986) which reinforces the need of humans for the feeling of belonging with the ultimate goal of group identification, realizing it through three mental processes ordered consequently (stages). The first, called categorization, to which stereotypes are related, is characterized by the act of grouping individuals into a category in order to more easily identify them and predict their behavior. Second, social identification, which has to do with the emotional meaning of belonging to a group. The greater the identification with the groups to which we belong, consequently, there is a tendency to normalize and adopt their behaviors, unconsciously conforming to what we think of “student” or “woman” is, for example. Finally, the social

comparison stems from the comparison of the ingroup, the one to which we belong, with the outgroup(s). At this stage, one enters directly or indirectly into dispute, since each individual tends to compete for the ingroup, in order to maintain or increase their status and power. This stems from intergroup comparisons, where, from an evaluative perspective, one group positions itself in relation to another (Tajfel & Turner, 1986). Taking into account the Theory's assumptions, one can describe the middle-age age group as having a higher group status compared to the younger and older ones (Garstka et al., 2004), which is due to the respect and influence they have in the social environment (Youmans, 1971), prestige (Feinman & Coon, 1983) and wealth (Cameron, 1970). For this reason, this age group struggles to maintain its high status, while the rest of the age groups struggle to improve it (Garstka et al., 2005).

Since middle-aged individuals are aware of their privilege in relation to younger and older individuals, and vice versa, and, as such, have less activation of ageist meta-stereotypes, they are less likely to claim that they are experiencing age discrimination, since they do not relate actions, microaggressions, behaviors, verbal expressions, etc. of others to the fact that they are the age they are (Glover & Branine, 1997). However, as this age group is in a favorable position in relation to the others, their reaction to the behavior of others towards themselves will depend on whether they interpret it as support or an affront to their status (Tajfel & Turner, 1986), and the age discrimination reported by this age group may depend on this same factor. This reaction can be potentiated by intrapersonal factors, such as identification with chronological age. Thus, when interpreted as a threat, this group reacts defensively, justifying its group status attributing the advantages to personal skills (Branscombe & Miron, 2004). This type of reaction can be explained by the fundamental attribution error that explains the biased tendency to explain positive or negative outcomes by placing the locus of control internally or externally in a positive or negative way (Tetlock, 1985). In this case, the middle-aged workers may place a positive effect of their personal characteristics (internal locus of control) to justify their status.

As there is currently an aversion to aging (Butler, 1969), middle-age individuals may try to deny advancing age (Nelson, 2000; Neugarten, 1974), in this way there may be an increased resistance to associating a particular experience as discriminatory because of age, as they may not identify psychologically with their chronological age. However, the exact opposite can happen, and the fear of aging can activate ageist meta-stereotypes, which leads to the fact that, in these cases, middle-age adults may report feeling ageist discrimination (Logan et al., 2016).

The social pressure to prevent aging is happening at an earlier age, as can be seen, for example, in the advertisements for anti-aging creams that are currently targeted for the Millennials and Generation Z age group (Levy & Macdonald, 2016). Thus, middle-age adults who visually appear to be older, middle-age adults transitioning to an older age (Sabik, 2015), or even very subjective issues such as one's self-esteem - greatly affected in women of this age group age, who suffer, compared to men, very strong aesthetic pressures associated with beauty standards (Antonucci et al., 2010; Fredrickson & Roberts, 1997) - can have an impact on the activation of age meta-stereotypes, and consequently on the experience of middle-age individuals in terms of ageism. It is concluded that, more than in other age groups, in this age group the spectrum of reactions to ageism is vast and very dependent on intrapersonal issues.

Studies (Glover & Banine, 1997) reinforce that the content of ageism is usually in the form of social pressure to reach certain standards associated with the idea of age throughout life (De Lange et al., 2006), and that, when not reached, constitute a "flaw" in the individual's life history. According to Finkelstein and collaborators (2013), middle-aged adults were more strongly categorized as "experienced" and "family-oriented", and these stereotypes already demonstrate the association of the idea that being a middle-age adult means constituting family.

Experts continue to reinforce the need for more studies on ageism covering all age groups (Gee et al., 2007; Giles & Reid, 2005), not least because conceptions of age are constantly changing. A major disruption is looming in terms of the restructuring of nursing homes and day centers that will have to exist to accompany the changes in the generational transition, such as, for example, the transition from an illiterate older adult population to a more academically educated one or the transition from a population with no technological skills at all to one already quite literate in this area, among others (União das Misericórdias Portuguesas, 2021).

2.8. Ageism Against and In Favor of Older Workers

Primarily, the study of ageism was concerned with its (negative) tendency towards older individuals (Butler, 1969). More essentially, the existing studies focus on the ageist attitudes and behaviors of the youngest towards the older adults (Minichiello et al., 2000).

Since the 1990s, the need to keep workers in the labor market has increased due to the ageing population, have begun to be implemented policies to extend working lives (Phillipson, 2013) and, consequently, to promote active ageing (Mann, 2007). This leads to the fact that, today, this is the most studied type of ageism and where there are more prevention and intervention policies in various contexts.

In general, older workers tend to be pushed aside in the workplace as the workforce is renewed (Maule et al., 1996). The premises for such logic struggle with their replacement in the workplace as they come to feel like a burden, perceived by the employer as too costly, inflexible, difficult to change and learn (Imel, 1996). Ageism against older people has become more pronounced over the decades due to technological changes (Cutler, 2005). This type of ageism, especially towards older adults close to retirement age, as they get older becomes increasingly benevolent, and therefore more socially acceptable because it is more subtle. This happens, due to the belief that they become almost imputable, unable to make their own decisions triggering paternalistic feelings (Finkelstein et al., 2015). In some studies, interviewees reported feeling "(...) being seen as less human" (Minichiello et al., 2000).

Ageing anxiety is present in all age groups, even in younger people (Bousfield & Hutchison, 2010), because all individuals are aware of the stereotypes associated with ageing (Kenyon, 1992; Koch & Webb, 1996), and, as such, as they get older, these stereotypes become more accessible to awareness (meta-stereotypes awareness). Consequently, the internalization of prejudice may occur, i.e., the awareness of these stereotypes (meta-stereotypes) may lead to conform behaviors in line with the meta-stereotypes, leading to the confirmation of one's own and others' ageist beliefs (Finkelstein et al., 2015). Similarly, to younger people, older people can experience ageist discrimination in the hiring and firing process (Roscigno, 2010), as well as within the workplace by peers and superiors directly or indirectly through bullying, humiliation, threats, verbal abuse (Workplace Bullying Institute, 2007 *cit in* by Powell, 2010), or subtly in the form of jokes (Minichiello et al., 2000).

Although stereotypes may be based on reality, they stem from causal attributions that generalize about one or another specific situation (Rupp et al., 2006). Most of the stereotypes regarding older workers, when confronted with facts, fall apart. Namely, it is believed that they suffer a decrease in productivity by becoming slower and less energetic. In fact, there are no differences that can differentiate whatever the age group is in terms of productivity and performance (Reio & Sanders-Reio, 1999). Even jobs requiring legally justified age limits do not show an age-related decrease in performance (Wilkening, 2002). Furthermore, there is a belief that as one ages, we become cognitively more rigid and unable to change and learn, as such, older people are given fewer opportunities for vocational training (Salthouse & Maurer, 1996), however, such stereotype is totally refuted by brain plasticity theory (Pauwels et al., 2018).

In their study, Finkelstein and colleagues (2013) found out that 60% of the stereotypes indicated by young people towards old adults were positive. Interestingly, the older adults

thought that the stereotypes of young people (old adults' meta-stereotypes) were mostly negative, mentioning characteristics such as "boring", "stubborn", "grumpy", not mentioned by young people. However, we cannot claim a positive stereotype, it is really positive, as often benevolent ageism is implied among apparently positive comments, beliefs, behaviors (Finkelstein et al., 2013; Minichiello et al., 2000).

2.8. Reactions to Negative Meta-stereotype Activation: Threat and Challenge

Reactions to the activation of the negative meta-stereotype can be distinguished into threat or challenge (Voyles, 2017).

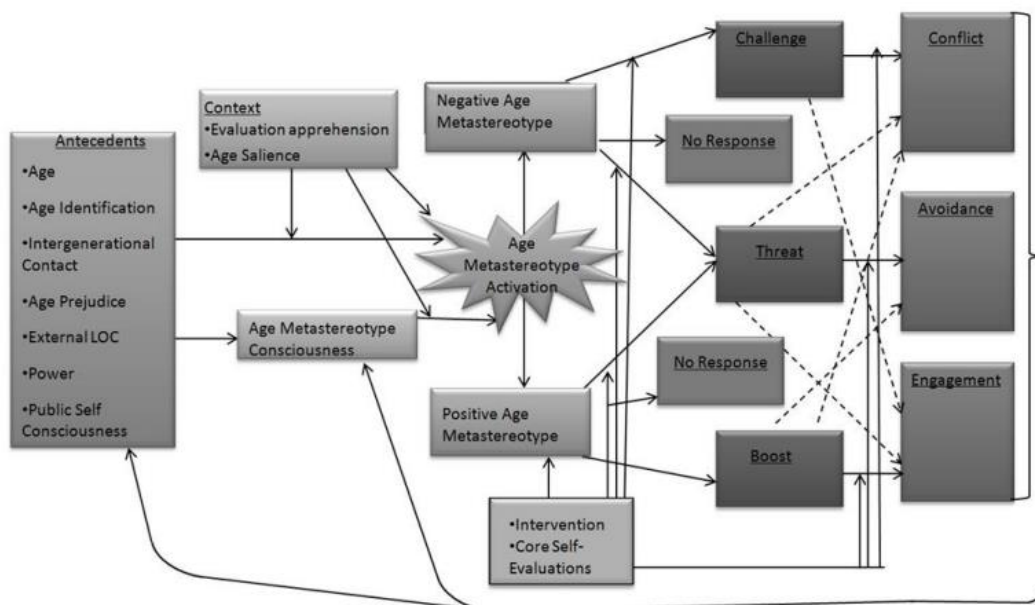
From a point of view already much more addressed by the literature, and also based on the theory of Tajfel and Turner (1986) already mentioned, negative meta-stereotypes are assumed as a threat to the status of a group, and therefore may threaten the positive image its members wish to maintain.

This reaction, described by the literature as the stereotype threat, is then, the feeling of anxiety and distress caused by the fear of prescribing negative meta-stereotypes, resulting in the individual's repression (Lazarus & Folkman, 1984). Individuals who react by stereotype threat are more likely to interpret events as discriminatory (Vauclair et al., 2016). As such, this type of reaction causes very strong emotional distress, as individuals are often in fear and cognitive-behavioral withdrawal (Folkman & Lazarus, 1984). This type of reaction produces negative effects both at the intrapersonal and interpersonal levels, as well as for the work context, being completely counterproductive since it decreases the cognitive, innovative and concentration capacity by triggering anxiety (Finkelstein et al., 2015). This type of reaction can lead to two types of behavioral adaptations: either the individual unconsciously falls back on the meta-stereotype and confirms it, thus making a self-fulfilling prophecy come true. This process, described in the literature, explains that by being aware of the expectations of others (meta-stereotypes) or of oneself, the individual may behave in a manner consistent with these expectations, confirming them (Jussim & Eccles, 1994). Or, on the other hand, the threat may serve as an "incentive" due to the fear of confirming the meta-stereotypes the subjects may even work harder, but such reaction will end up compromising their performance (Steele & Aronson, 1995), if this does not happen it may compromise other aspects of their personal life (e.g., family relations, emotions, appetite etc.) (Beilock et al., 2007; Inzlicht & Kang, 2010), having in the end always a negative impact (Swift et al., 2013). The stereotype threat reaction may

derive from the activation of negative meta-stereotypes, but also positive ones, since the individual may feel pressured to maintain such expectation (Voyles, 2017).

The activation of a negative meta-stereotype does not necessarily have to give rise to a threat reaction. It can also trigger a challenge reaction. This is characterized by dissonant feelings, partly negative (e.g., indignation towards the source on which the meta-stereotype is based) and partly positive (e.g., pride in the group to which they belong), thus enhancing an increase in motivation and self-efficacy towards the refutation of such meta-stereotypes (Voyles, 2017).

The Age Meta-Stereotypes Model (Finkelstein et al., 2015) demonstrates the possible responses to activation of positive and negative meta-stereotypes and their possible behavioral actions in the work context, as well as the antecedents that inflate or deflate them.



Note. Adapted from Finkelstein et al. (2015)

Figure 2.3 – Age Meta-stereotype Activation Model

We could think the activation of a negative meta-stereotype would condition to a negative reaction, and a positive meta-stereotype to a positive reaction. The truth is that a negative or positive meta-stereotype can lead to a positive, negative, or neutral reaction. In Figure 2.3, it can be seen that, experiencing the activation of negative meta-stereotypes, the person may have a threatening, challenging or neutral response (Finkelstein et al., 2015). And

indeed, each reaction is not mutually exclusive: an individual may experience mixed reactions to varying degrees. Some explanations that help determine prevalence of one reaction in favor of another are for example, the assessment of resources and demands, if resources outweigh demands, the challenge reaction is more likely, as the individual anticipates to have the resources to successfully circumvent the negative meta-stereotype. It also has much to do with intrapersonal variables such as self-efficacy, self-esteem, internal locus of control, emotional stability, among others (Blascovich & Mendes, 2000).

The model shown in Figure 2.3 perspectives for each affective reaction possible behavioral reactions in the workplace. Namely, threat reactions translate into behavioral reactions of avoiding contact with colleagues of other age groups in order to avoid confrontations. For the challenge reaction, workers are more likely to engage in intergenerational conflicts (Finkelstein et al., 2015).

Stemming from negative meta-stereotypes, all behavioral reactions are mostly work compromising in various ways, such as the work environment and performance itself (Kleine et al., 2019; Spreitzer et al., 2005; Voyles, 2017). There is only a very low probability that a challenge reaction can strengthen organizational commitment, as can be seen in Figure 2.3 where a very faint arrow is depicted (Finkelstein et al., 2015). Although both reactions are harmful for the individual, the difference between both is that the stereotype threat presents immediate negative effects for the individual as well as for the work and family sphere. On the other hand, the challenge response may take longer to present its harmful effects, since the individual driven by the willpower to show they do not corroborate the stereotypes, will initially present a compensatory behavior (e.g., staying extra hours at work etc.) that after some time ends up being exhausting because it focuses the cognitive resources and efforts on the need to counteract the meta-stereotype (Finkelstein et al., 2020; Voyles et al., 2014).

In a period where intergenerational differences are more evident than ever (Simões & Gouveia, 2009), it is believed such discrepancies may result in conflicts, even more so if inflated by a work environment characterized by ageist beliefs (Finkelstein et al., 2015). In this sense, it is important to understand the impact of the perception of ageism (Meta-stereotypes) on workers in their professional (Thriving at Work) and personal (Spillover) contexts.

2.9. Possible Consequences

2.9.1 Thriving at Work

A paradigm shift is taking place regarding the meaning of work. Work is no longer just a way to earn a living, but a source of self-fulfillment that should be challenging and promote learning and evolution (Valenduc, 2014).

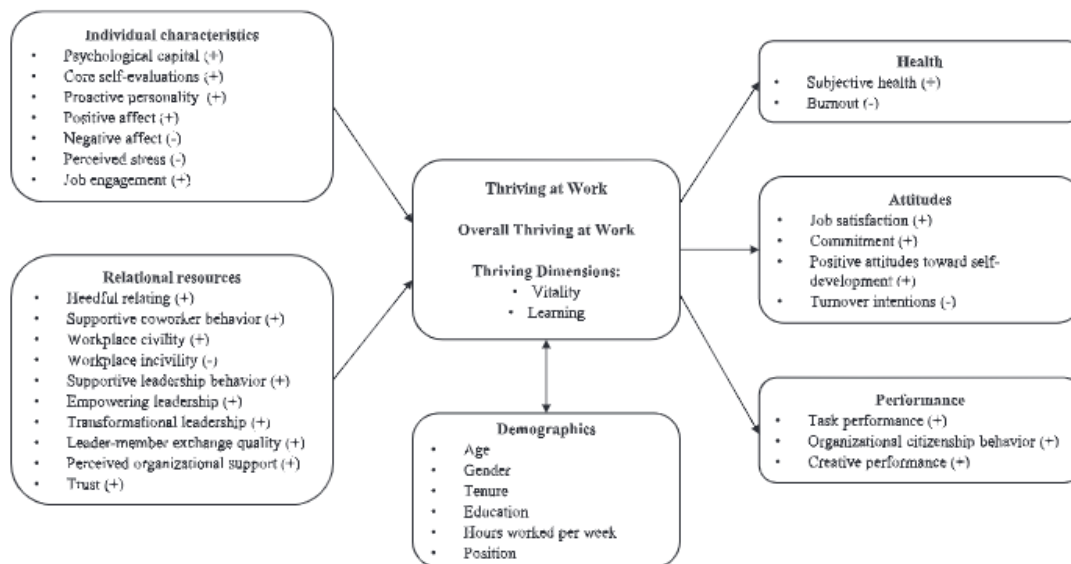
Spreitzer and colleagues (2005) stated that the feeling of success at work goes beyond a good salary, although this finding is more or less true depending on the centrality of work in the individual's life and, obviously, contextual variables (e.g., cost of living, number of dependents, etc.), there are indeed individuals who leave higher-paying jobs for others where they will feel more professionally fulfilled. These authors then define success at work as a "psychological state characterized by a shared sense of vitality and learning" (Spreitzer et al., 2005, p. 538). Employees are thriving at work if they experience personal growth by feeling energized and alive (vitality) and by the sense of continuously acquiring and applying knowledge (learning). The feeling of thriving at work leverages intrinsic motivation in workers (Kleine et al., 2019). The sense of prosperity at work, based on the need to continuously evolve at work, brings benefits to the individual by fulfilling and enhancing their intrinsic motivation needs, but also to organizations, since this translates into greater productivity, innovative capacity, and better performance (Prem et al., 2017).

Learning is associated with overcoming difficulties and, essentially, with the mentality of seeing them as opportunities to learn instead of obstacles. In this sense, some authors (Spreitzer et al., 2005) consider that success at work can exist even in the face of adversities and stressful factors. Prem and colleagues (2017) further specify that stressful factors associated with a challenge response in the face of meta-stereotypic activation is positively related to learning at work. Contrarily, Kleine and collaborators (2019) argue that success at work is negatively associated with the presence of stressors in a work environment. To support this finding, Kulik (2014) demonstrated that a threat response to meta-stereotypic activation negatively impacts thriving at work.

Based on the activation of negative meta-stereotypes, the challenge reaction appears to be more advantageous (for the individual and for the organization) than the threat reaction, since it promotes prosperity at work. In the long term, however, this may also cause emotional distress on the individual because they constantly feel the need to overcome the negative image in the light of his/her meta-stereotype. The ideal would be to create a work environment that is

as inclusive as possible, because the probability of having a challenge reaction depends on both intrapersonal (e.g., self-esteem, personality traits, resilience etc.) and contextual (i.e., weakening events in one's personal life) variables (Inzlicht et al., 2006; Major et al., 2002). And, because the challenge reaction is more likely to trigger conflict rather than commitment behavioral responses (Finkelstein et al., 2015).

Also, job prosperity is impacted by numerous antecedent variables as shown in the Thriving at Work Model (Spreitzer et al., 2005) visible in Figure 2.4 below. Individual antecedent variables such as proactive personality, and relational variables such as peer support and perceived organizational support positively impact on decreasing burnout and turnover intention, as well as job satisfaction, commitment, and performance. Nowadays, burnout syndrome is one of the main concerns of European organizations and health institutions, as it is increasing considerably, especially after the COVID-19 pandemic. It is characterized by a depressive state originated by the physical and mental exhaustion of stress caused by work (Areosa & Queirós, 2020). In the reverse direction to what's proposed by the model, the burnout syndrome leads to a decrease in personal and professional fulfilment and thriving at work (Maslach & Leiter, 2008).



Note. Adapted from Kleine et al. (2019)

Figure 2.4 – Thriving at Work Model (Antecedents and Outcomes)

It is also important to understand that thriving at work depends on the stage of personal and professional life in which the worker is (OCDE, 2020). Despite what was previously

thought, namely that thriving at work decreases with age, recent studies have shown the opposite (Porath et al., 2012; Taneva et al., 2016).

Through this literature review, two hypotheses were conceived considering the possible short-term effects, captured by longitudinal data collection of seven working days of both reactions on thriving at work. It is expected that, in the short term, threat reaction will have immediate negative impacts on thriving at work (Kulik, 2014). On the contrary, challenge reaction is expected to have a positive impact on Thriving at Work, since it will motivate workers to overcome the negative meta-stereotype (Alter et al., 2010). Thus, the following hypotheses were formulated:

Hypothesis 1: The threat response is negatively related to thriving at work;

Hypothesis 2: The challenge response is positively related to thriving at work.

2.9.2 Spillover Effect

The spillover effect is characterised by the spillover of emotions, attitudes, skills and behaviours from one context to another, which can have a positive or negative effect (Lambert, 1990). In this case, its negative effect may arise from ageist discrimination in the workplace, or only through the activation of ageist meta-stereotypes (Oliveira & Cabral-Cardoso, 2018). This negative effect, directly or indirectly impacts the individual and, consequently, can negatively impact on their work or personal life (Carlson et al., 2012; Duffy et al., 2002).

Often, individuals are unable to confront, clarify or, in the most serious cases, report the situation at the workplace, since it is a space of hierarchical inequality and where the individual feels uncomfortable, especially if they feel it coming from a hierarchical superior. Following on from this, the individual is more likely to ease the feeling by "unloading" on a safer target or environment, such as a family member (Bakker et al., 2009; Hoobler & Brass, 2006). This displaced aggression (Marcus-Newhall et al., 2000) constitutes a process of self-regulation (Muraven et al., 1998). The activation of a negative ageist meta-stereotype causes the individual to feel worn out as they will consciously or unconsciously try not to prove the meta-stereotype, leaving them with less motivation and cognitive ability to adopt adjusted self-regulatory behaviors at home. This means, an activation of negative meta-stereotypes, regardless of whether the individual responds as threat or challenge, can always cause a negative impact, if it does not impact negatively on the workplace, it will impact negatively on the family

environment and vice versa, as the spillover effect is based on the work-home interface proposed by the balance between the two (Barber et al., 2017).

The non-implication with neither of the two can be explained by the use of adjusted self-regulation mechanisms (e.g., physical exercise) although it may be proven ineffective in the long term. That adjustment will depend on the abilities and self-regulatory strategies of each individual (Barber et al., 2017). Some approaches suggest that although in a first instance individuals may be able to perform adjusted behaviors preventing spillover, eventually fatigue will emerge which will culminate in less willingness and motivation to do so. That is, in an initial phase individuals may act with compensatory strategies, but these strategies are costly since they lead the individual to direct their cognitive and motivational efforts towards trying to demonstrate that they do not corroborate the meta-stereotypes, divesting in priority tasks requiring more effort and focus. Such exhaustion may translate in the long term into a disinvestment in work or family life activities, or even both (Inzlicht & Schmeichel, 2012; Muraven & Baumeister, 2000).

The spillover effect can demonstrate its negative impacts directed to targets of the individual's personal life, for example through family (Lim & Lee, 2011) or marital conflicts (Lim et al., 2018), more specifically in the adoption of uncompensated behaviors expressed through criticism, anger, arguments, sarcastic jokes, among others. It can also manifest itself in the individual, indirectly impacting their home environment, for example affecting their quality of sleep (Barber et al., 2017; Fritz et al., 2019), fatigue, distraction or less investment in activities at home (Grzywacz & Marks, 1999). Even if the affected individual tries to avoid harming others around them, the experienced stress ends up being indirectly transmitted to those who live in the same environment as if it were a kind of energy (Bakker & Demerouti, 2013) the so-called crossover effect (Bolger et al., 1989). In the same way, the fact that family environment and work are interrelated systems (Bronfenbrenner, 1977), stress and discomfort will be relayed to work, being reflected in it. The spillover effect assumes a bidirectional direction, from personal life to work and from work to personal life (Grzywacz & Marks, 1999), however, always connected in an equilibrium interface, feeding back positively or negatively, like a snowball effect (Baker & Demerouti, 2013; Bronfenbrenner, 1977).

However, demonstrations of the spillover effect (e.g., yelling at a family member for no apparent reason) can be difficult to capture because its effects may take some time to manifest (Matthews & Ritter, 2019) as symptoms may be being alleviated by self-regulatory strategies and are dependent on an emotional distress process, this being dependent on the intensity, continuity and centrality/importance of the event or meta-stereotypic activation in the

individual (Cortina et al., 2001). Perhaps it is for this reason that the spillover effect directed to personal life is the least explored in the literature (Marchiondo et al., 2020). To measure this type of variables, the daily diary or experience sampling methodologies have proven to be more effective (Marchiondo et al., 2020), as previous studies have shown that daily diary methodologies capture the consequences of spillover in the short, medium, and long term. From a short-term perspective, Nicholson and Griffin (Nicholson & Griffin, 2015) showed that workers experienced malaise after leaving work. In the long term, negative spillover can activate burnout and turnover intention in workers (Barber et al., 2017).

It is also important to consider that spillover effects may be different depending on the age of the worker. Young people may show higher levels of spillover since they usually have less capacity to control impulses and more affective expression and, as such, they more easily spillover between environments (Diehl et al., 1996; Gross et al., 1997). For this purpose, Marchiondo and collaborators (2020) advise comparative studies between age groups.

Finally, regarding impacts of threat and challenge reactions on spillover, another two hypotheses were formulated, also having in mind its potential effect on the short-term (seven working days of data collection). Through literature we can expect that threat response will cause a negative impact at work and challenge response a positive one, that same effects shall spillover into workers personal life (Grzywacz & Marks, 1999; Lambert, 1990) as threat is more nefarious than challenge in its harmful impact (Alter et al., 2010). Threat response will harm right away, as for challenge may or may not have a negative impact (Finkelstein et al., 2015). In this line of thought two hypotheses were conceptualized:

Hypothesis 3: The threat response is positively related to negative spillover;

Hypothesis 4: The challenge response is negatively related to negative spillover.

The present work intends to make a contribution in the field by identifying important (meta)stereotypes related to different age groups at work (younger, middle-aged, and older workers) and provide some preliminary evidence regarding the hypotheses formulated. More details regarding this two-fold research proposal are given in the following chapter.

CHAPTER 3

Methodology

“Science begins with questions. Everybody can have questions, and even answers to them. What makes science special is its method of answering questions.”

(Toomela, 2010)

For social science research, there are multiple methodologies, each of them with both advantages and limitations. The scientific researcher should take an active role in choosing which of them is more appropriate for the purpose of their study and research questions (Creswell, 2014).

This Master’s Thesis is in the scope of a project run by the co-supervisor Eduardo Oliveira from School of Economics and Management of the University of Porto. Some of the procedures done included additional steps, some of which were not central for the development of this research, but complementary and interesting to help contextualize the results and discussion. Thus, in this follow-up, two independent studies were carried out, aiming for future developments that can be complementary, and integrated into one, more comprehensive study. The preliminary study (Study 1), as a first step, aimed to identify the stereotypes associated with each age group. The main study (Study 2) intended to check response-effect that ageism perception activation has. However, due to analysis complexity, meta-stereotype activation was not included in the full model, leaving us to focus on the downstream part (response>effect).

3.1 Additional Analysis

3.1.1 Preliminary study (Study 1)

The literature on meta-stereotypes is vague regarding the middle age group (Posthuma & Champion, 2009), also some age ranges have more positive or negative meta-stereotypes associated than others (Finkelstein et al., 2013) making it difficult to associate egalitarian dimension meta-stereotypes for each age group. Moreover, to our knowledge, such studies only

exist for the USA (Finkelstein et al., 2015) and Canadian reality (Vorauer et al., 1998). For those reasons, it was advisable to conduct a preliminary study focused on stereotypes applicable to each relevant age at work (younger, middle-aged, and older workers).

This study consisted of a questionnaire done using Qualtrics (Provo, UT). The sample was recruited through non probabilistic methods, namely convenience sampling, by researcher's own contact network (Vehovar et al., 2016) and had a total of 123 participants. Their ages varied between 18 and 92, with a mean of 30.48 years old ($SD= 14.53$). According to Finkelstein and colleagues (2013) definition of age groups, the sample counted with 88 young people (aged 30 or lower), 19 middle-age (31-50 years old) and 18 older adults (aged 51 or higher). Although there were two participants not fitting the label of workers due to their (advanced) age (71 and 92 years old), their responses were still considered because they can inform about current age-based stereotypes in general and results did not change if their data were excluded. Most of the sample was composed of females (88, 72%).

A total of 14 meta-stereotypes were adapted to Portuguese from Finkelstein and collaborators' (2013) article. The criterion was taking the negative and positive meta-stereotypes most frequently associated with each age group according to the authors. An even balance was not possible, since some age groups had more positive or negative meta-stereotypes associated, and some other stereotypes were assigned to more than one age group. In sum, the meta-stereotypes chosen to possibly apply to younger workers were: "impulsive", "energetic", "curious", "inexperienced", "innovative", "irresponsible", "overly-stressed", "technologically-savvy", and "unavailable". To middle-aged workers were: "autonomous", "energetic", "overly-stressed", "family-oriented", "unavailable" and "reliable". Finally, to older workers, they were "experienced", "conservative", "family-oriented".

In the questionnaire, the participants should answer how much did they think each of these stereotypes applied to each age group on the professional context, on a 5-point Likert scale from 1 (Does not apply at all) to 5 (Applies perfectly).

The data were analyzed through IBM SPSS Statistics Software (version 28) by way of simple mean comparisons between attribution of a given stereotype to the age groups. Comparisons were made having as baseline comparison the age group(s) of reference for that given stereotype based on Finkelstein and collaborators' (2013) article. These comparisons are summarized in Table 3.1.

Overall, participants found younger workers as more "technologically savvy", "innovate", "energetic" and "overly stressed" than middle-aged workers.

Also, participants found middle-aged workers are more “autonomous” and “family-oriented” than younger workers, but also more “reliable” than young and older workers. Also, middle-aged were considered to be more “overly-stressed” than older adults. Finally, with regards to older workers, these were considered more “conservative” and “family-oriented” than middle-aged workers, as well as more “experienced” than middle aged workers, and younger workers.

With this preliminary study we can conclude that, for Portuguese reality, contrarily to what was expected, younger workers were associated with more positive stereotypes, except for being overly stressed (negative valence). As for middle-ager workers with positive and neutral stereotypes (“family-oriented”). Finally older workers were assigned with positive (“experienced”), neutral and negative-valence (“conservative”) stereotypes (Finkelstein et al., 2013). Perhaps being overly stressed is antagonistic to being experienced, once younger and middle-aged workers were associated with this stereotype, but older workers were not. For middle-age workers, overly stressed might be connected to family duties, since this age group is probably invested in growing kids, as for older workers are invested in family but perhaps with already older children and possible grandchildren, generally not so time consuming. In this line of thinking, younger workers might be seen as overly stressed for their association with “inexperienced” stereotype mentioned by Finkelstein and colleagues (2013).

Interestingly, no differences between applicability of stereotypes to younger and to older workers was found in some stereotypes, such as being energetic, curious, inexperienced, innovative, and conservative. It was rather the distinctiveness compared to middle-aged that characterized the applicability of these stereotypes. It is possible to speculate that responses to these questions could have been, on their own, some kind of reactance to attributing these stereotypes to younger/older workers.

Table 3.1 - Characteristics most associated with each age group by comparison of means

Stereotype	Applicability						Mean differences
	Younger workers (Y)		Middle-aged workers (M)		Older workers (O)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Impulsive	4.02	0.83	3.23	0.75	2.71	1.14	Y vs O: $p=.154$ (n.s.) Y vs M: $p=.918$ (n.s.) Y vs O: $p=.191$ (n.s.)
Energetic	4.30	0.77	3.58	0.64	2.66	0.85	Y vs M: $F(4,116)=8.13, p<.001, \eta^2=.22$ M vs Y: $F(4,116)=8.28, p<.001, \eta^2=.22$ M vs O: $F(4,116)=6.47, p<.001, \eta^2=.18$
Curious	4.18	0.81	3.68	0.80	3.36	1.06	Y vs O: $p=.481$ (n.s.) Y vs M: $F(4,115)=9.22, p<.001, \eta^2=.24$
Inexperienced	3.83	0.92	2.59	0.72	1.98	0.84	Y vs O: $p=.674$ (n.s.) Y vs M: $F(4,116)=6.49, p<.001, \eta^2=.18$
Innovative	4.29	0.70	3.61	0.74	2.72	0.94	Y vs O: $p=.070$ (n.s.) Y vs M: $F(4,116)=10.92, p<.001, \eta^2=.27$
Irresponsible	3.62	0.87	2.67	0.78	2.31	0.95	Y vs O: $p=.817$ (n.s.) Y vs M: $F(4,115)=5.24, p<.001, \eta^2=.15$
Overly stressed	4.07	0.97	3.89	0.80	3.07	1.04	Y vs O: $p=.896$ (n.s.)

							Y vs M: $F(4,116)=5.25, p<.001, \eta^2=.15$
							M vs Y: $F(4,116)=4.30, p=.003, \eta^2=.13$
							M vs O: $F(4,116)=3.87, p=.005, \eta^2=.12$
Technologically-savvy	4.74	0.59	3.86	0.60	2.59	0.88	Y vs O: $p=.217$ (n.s.)
							Y vs M: $F(4,116)=9.35, p<.001, \eta^2=.24$
Unavailable	3.19	0.99	3.36	0.86	2.70	0.98	Y vs O: $p=.119$ (n.s.)
							Y vs M: $p=.071$ (n.s.)
Autonomous	3.39	0.99	4.22	0.65	3.68	0.91	M vs Y: $F(4,116)=2.47, p=.049, \eta^2=.08$
							M vs O: $p=.436$ (n.s.)
							O vs Y: $p=.233$ (n.s.)
Family-oriented	3	0.89	3.86	0.68	4.20	0.84	O vs M: $F(4,116)=13.95, p<.001, \eta^2=.33$
							M vs Y: $F(4,116)=4.24, p=.003, \eta^2=.13$
							M vs O: $F(4,116)=15.56, p<.001, \eta^2=.35$
Conservative	2.42	0.95	3.37	0.77	4.26	0.81	O vs Y: $p=.571$ (n.s.)
							O vs M: $F(4,115)=11.98, p<.001, \eta^2=.30$
Experienced	3.11	1.14	3.59	1.18	3.90	1.34	O vs Y: $F(4,115)=19.60, p=.004, \eta^2=.41$
							O vs M: $F(4,115)=28.22, p<.001, \eta^2=.50$
Reliable	3.52	0.88	3.96	0.71	4.11	0.77	M vs Y: $F(4,116)=16.92, p<.001, \eta^2=.37$
							M vs O: $F(4,116)=35.50, p<.001, \eta^2=.55$

3.2 Main Study (Study 2)

3.2.1 Quantitative Methodology

Quantitative methods are used to test objective theories or assumptions by analyzing the association between variables; in a way, these methods are more of a top-down approach. Also, the basic distinction between quantitative and qualitative methodologies are, normally, the use of numbered instruments to collect data, since numerical analysis is done (Creswell, 2014).

In this continuum, there can be different reasons that lead the scientific researcher more toward one methodology than the other. In this specific case, considering the vast existing literature, it was possible to tend some relationships between variables and so, formulate hypotheses (Creswell, 2014). So, for the operationalization of this study, a quantitative approach was taken, since a top-down approach to the problem was conducted, as well as the use of numbered instruments for measurement (i.e., surveys coded with number scales), and statistical procedures for data analysis.

Within quantitative methodology, there are experimental designs or nonexperimental designs, such as surveys (Creswell, 2014).

3.2.2 Surveys

Surveys are a numeric representation of tendencies, attitudes, or opinions of a sample of determinate population (Creswell, 2014) they usually intent to generalize to a global population (Fowler & Cosenza, 2009). Normally it is done using self-administered questionnaires or mediated by an interviewer who asks and registers the answers. Once again, surveys may also be divided into cross-sectional or longitudinal studies, which means a unique measure at a specific time or multiple measures across a period of time, respectively (Creswell, 2014). For this research, three distinct on-line questionnaires were used: the baseline questionnaire measured only once, since it contained sociodemographic questions or variables tending to be static across time, and two other were measured longitudinally across seven working days. The variables to be analyzed were measured longitudinally.

3.2.3 Experience Sampling Method (ESM) or Ecological Momentary Assessment (EMA)

Daily Diary Studies

ESM or EMA classifies as an active method of ambulatory assessment, ESA/EMA work as a daily diary study (Trull & Ebner-Priemer, 2014) allowing to “capture life as it is lived” (Bolger et al., 2003, p. 580). It is closer to reality because data is being collected in natural settings, in real-time (or close), and on multiple occasions (Conner et al., 2009). Both ESA and EMA are used interchangeably, and their differences lie mostly on the tradition from which they arose (focus on representativeness of behaviors in natural environments or health self-monitoring, respectively) (Trull & Ebner-Priemer, 2014, 2009).

This type of methodology is best suited to measure micro-internal processes such as experiences or sensations, whether a regular survey where the participant answers only once might be about recalling a memory or about stable/fixed beliefs (Kalokerinos, 2020). In this research, the outcome variables (thriving at work and spillover) are dynamic and within-person processes, very subjective and unstable because they can be triggered by various situations in daily life (Kalokerinos, 2020).

Besides, has numerous other advantages such as 1) Reducing recall bias, since the participants do not have to retrieve memories (at least not far distant ones) the experiences and sensations do not lose their intensity and are more accurate (Scollon et al., 2003); 2) Increasing ecological validity, since the data collection is done in natural settings the results can be easily transferred to the population; 3) Looking into differences over time (longitudinal approach), apart from measuring dynamic and within-person processes, as well as separating between and within-person effects (Kalokerinos, 2020); and 4) Assessing over multiple contexts (Kalokerinos, 2020), in this case, participants could answer while at work or home, or in another context more convenient for them (e.g., in public transportation right after leaving work).

There are three different types of ESM/EMA designs, which are: interval-contingent; signal-contingent and event-contingent. In this study it was chosen to use the interval-contingent (or fixed) design, where the surveys are sent (by notifications) at fixed times per day (Kalokerinos, 2020). All designs have strengths and limitations, but interval-contingency was best suitable for this study because the goal was to see at what degree threat or challenge responses related to thriving at work impacts and spillover effect in that workday and in previous days, being the observations evenly spaced would facilitate that day after day prediction. Also, to diminish recall bias, the participants were asked to always answer the Questionnaire 2 (Q2) up to one hour after leaving work and Questionnaire 3 (Q3) minimum one hour after arriving home. Furthermore, the variables being measured were not affected by

preparation or prediction, meaning that, even the participants knowing at what time would receive the notification, it would not compromise their answers, so it was the best option, also because it was easier for the participants to create a routine and remember answering (Kalokerinos, 2020).

3.2.4 SEMA3

The tool used to collect data was SEMA3 (Smartphone Ecological Momentary Assessment), a smartphone application designed to deliver questionnaires on smartphones in real time. It was designed by Melbourne University researchers, together with Australian Catholic University and Orygen – The National Centre of Excellence in Youth Mental Health, being developed and kept by Melbourne eReserch Group (Koval et al., 2019).

There are a few options available to apply ESM/EMA methodology, however SEMA3 presented some advantages, such as: 1) being an app which participants could download to their own personal phones overriding dependence of external resources (e.g., research laboratories), also avoiding adjustment time to a new mobile device; 2) being a free application for academic use (although a formal request has to be done on SEMA3 website); 3) the participant does not require internet to answer the questionnaire; 4) it is a better option in granting timely notifications; and 5) it also measures reaction times (Kalokerinos, 2020). The biggest downside is the inoperability in some Android systems (e.g., Huawei) (Koval et al., 2019).

3.2.5 Participants

This research gathered a total of 44 participants, of which 26 (59%) were female and 18 (41%) were male. Their ages varied between 20 and 57 years old, with a mean of 35.95 ($SD = 12.46$). In terms of education level, 23 (52%) had higher education (i.e., bachelor, master's degree etc.), 18 (41%) graduated high school and 3 (7%) had until ninth grade.

Regarding other demographic characteristics, 15 (34%) were married, 13 (30%) were in a relationship, 13 (29%) were single, and 3 (7%) were separated/divorced. In relation to having children, 23 (52%) did not have any and 21 (48%) had between one to three children. When asked about the percentage of time participants spent per week with their families and friends, 18 (41%) answered between 25% to 50%, 10 (23%) less than 25%, 8 (18%) between 51% to 75% and another 8 (18%) more than 75% of their time.

Concerning their careers, the participants had diverse professional backgrounds, from Arts and Culture to National Defense; however, most of the sample (9 participants, 21%) were from the educational background (e.g., kindergarten teachers). To see all variety of job functions, see annex A. Regarding having a headship job position, 37 (84%) reported they did not, only 7 (16%) participants of the sample reported having leadership duties.

As to professional experience in years it varied between not even a year to 40 years of experience, with a mean of 13.06 ($SD = 12.67$). In respect of antiquity in the role, it showed a range between not even a year to 24 years having a mean of 6.96 ($SD = 7.7$). Also, in regards of antiquity in the organization, a range from not even a year to 29 years, with a mean of 9.46 ($SD = 10.86$).

Most of the sample had a full-time job (35 participants, corresponding of 80%) with 32 (11%) having a fixed working schedule. With the majority of 25 participants (57%) having an open-ended employment contract.

Finally, when asked about how much time per week participants spent teleworking, 38 (86%) responded less than 25% with only 3 (6%) working remotely more than 75% of the time.

3.2.6 Procedure

For the main study (Study 2), the sample was gathered through non probabilistic methods of which a convenience sampling through researcher's own networks (Vehovar et al., 2016). To participate in this study the participant should have, at least, 18 years old and be currently employed. The researchers previously presented to potential participants the technical scope of the study, including that the download of a smartphone app would be necessary, and the data collection would occur over seven working days. If the person showed interest, an e-mail was requested for a posterior formal contact.

Since personal data was mandatory (e-mail) not only for a formal invitation over e-mail but also to receive a Participant ID to access questionnaires at SEMA3, a submission to Iscte's Ethic Commission was required. Once fully accepted by Ethics Committee, the data collection itself could officially start.

Due to the complexity of the study, the participants did not start and finish the data collection at the same time. The role of the researcher had to be very active, thus, to facilitate, the participants were divided into smaller groups, to make it easier to manage and coordinate their activities, answer any doubts, troubleshoot informatics' issues and keep the engagement. Hence, the data collection occurred between the 23rd of May until 9th of July.

The participants were contacted via e-mail (Annex B) where they were thanked for their availability and commitment and provided with a link to an instructions video. For that, a video PowerPoint presentation with the instructions was made (Annex C), projected, and recorded through Microsoft Teams with oral explanations all along. That video (Annex D) included explanations to follow all course of the study, such as the times to answer each questionnaire, to SEMA3 download guide.

The research was done through a total of three questionnaires carried out over seven working days. The first questionnaire (Q1) should be answered only once at any time of the first day of the study since it contained sociodemographic questions and other variables that would not change over time. Also, at the first day the participant should answer the second questionnaire (Q2) up to an hour after leaving their work and the third questionnaire (Q3) at least one hour after arriving home. For example, if a participant left work at 5 P.M. they should answer Q2 until 6 P.M., also if the participant arrived home at 7 P.M. they should answer from 8 P.M. For the following six working days, the time schedule answering logic was kept the same.

Regarding the informed consent, it was assured on the Q1 right at the beginning (Annex E). The participants should read the information about the study provided at the introduction, confirm they were at least 18 years old and consent their participation by signaling “yes” or “no”.

3.2.7 Instruments/Measures

As for the measurement of the variables included on the conceptual model, the following instruments were used:

Age-Based Stereotype Threat (Oliveira & Cabral-Cardoso, 2018, adapted from Shapiro, 2011). This instrument already used in the Portuguese population by Oliveira and Cabral-Cardoso (2018) is composed of three items formulated in the positive direction. The measurement is done through a 5-point Likert scale from 1 (Never) to 5 (Always). The items were originally formulated for the older age group, so a replacement for age-neutral language was done, since the study covers all age groups. As an example, the item “Hoje fiquei preocupado(a) ao pensar que as minhas ações possam representar pobremente os trabalhadores mais velhos” transformed into “Hoje fiquei preocupado(a) ao pensar que as minhas ações possam representar pobremente os trabalhadores da minha idade” [Today I was worried that my actions might represent poorly the workers of my age].

Age-based challenge response (Finkelstein et al., 2020). This instrument is composed of three items formulated in the positive and the measurement is also done through a 5-point Likert scale from 1 (Never) to 5 (Always). As an example, “Hoje trabalhei ainda com mais empenho para superar as expectativas que os meus colegas de trabalho têm em mim por causa da minha idade” [Today I worked even harder to exceed the expectations that my co-workers have of me because of my age].

Thriving at Work: Vitality and Learning (Porath et al., 2012). This is an instrument composed by ten items, five items concerning vitality and the other five learning. However, only the eight positive formulated items were considered for this study, four of each dimension. This active choice was due was due to the fact that the coexistence of negative and positive items leads to error loading in separate factors (Dalal & Carter, 2015). As long as the validity of the retained items is measured to ensure that the items still measure the construct of the scale, this is a another way of proceeding (Fisher & To, 2012). Also, this showed benefits by shortening the questionnaire response time, reducing probability of attrition (Kalokerinos, 2020).

The participants answered on a 5-point Likert scale from 1 (Totally Disagree) to 5 (Totally Agree). As an example, for the vitality dimension, “Tenho energia e ânimo no trabalho” [I have energy and drive at work], as for learning dimension, “Frequentemente sinto que estou a aprender no trabalho” [I often feel I am learning on the job].

Negative Work to Family Spillover (Adapted from Grzywacz & Marks, 2000). The original instrument comprised four measures: Negative Work-to-Family Spillover; Positive Work-to-Family Spillover; Negative Family-to-Work Spillover and Positive Family-to-Work Spillover. Not all of them were used since for the purpose of this study it only interested the Negative Work-to-Family Spillover. This dimension is composed by four items. Since this measure have never been adapted for the Portuguese population, a translation and back-translation of the three items was conducted by a bilingual person. For instance, “O stress no trabalho faz com que fique irritado em casa” [Stress at work makes me angry at home].

In addition to these constructs, other variables were measured in the scope of the co-supervisor project, even though they were not used for the model tested, they were considered important by the researchers for the context of the project. Variables such as Age Meta-

Stereotype Consciousness; Negative Age-based Meta-Stereotype; IT Support; Manager Support for Telework; Manager Trust in Teleworker; Professional Isolation; Perceived Remaining Time and Perceived Remaining Opportunities; Social Support and Perceived Organizational Support.

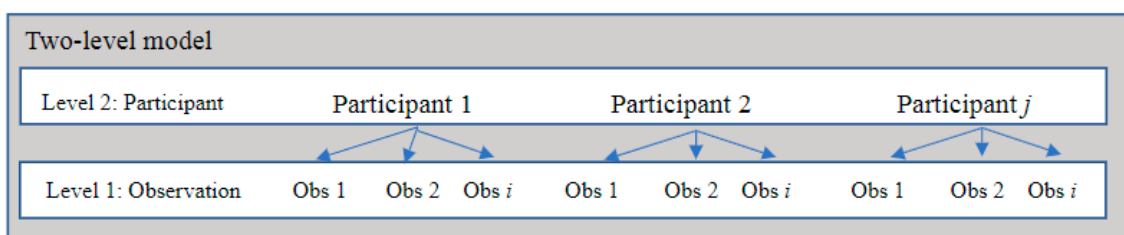
CHAPTER 4

Results

Intensive longitudinal research offers significant differences from cross-sectional research, being one of them the possibility of having a smaller sample with a greater number of answers (Kalokerinos, 2020). For this research, despite the sample being composed of only 44 participants, a total of 301 observations were collected.

Given the fact that some of the measured variables are dynamic (e.g., spillover), that is, closer to a state (i.e., volatile, unstable, dependent) rather than a trait (i.e., fixed, stable, independent) (Bakker & Demerouti, 2013), intensive longitudinal studies are optimal to capture those variances throughout passage of time (Kalokerinos, 2020). Furthermore, we are primarily interested in the variation within subject rather than between subjects, because besides spillover being an intrapersonal effect (Bakker & Demerouti, 2013), the several responses of a person are not independent, and are probably more related with one another than with the responses of other participants, especially since one observation can influence the response of the following day (Kleiman, 2017).

Multilevel Models, as the name implies, require different levels. In this case, the several observations throughout time (level 1) are nested within people (level 2). So, our data has a multilevel structure with Two-Levels, as the figure 4.1 exemplifies.



Note. Adapted from Kleiman (2017).

Figure 4.1 – Example of a Multilevel Model with Two-Levels

All statistical analyses were done through RStudio software in version 4.2.1. RStudio is a free software environment for statistical computing and graphics based on the R programming language (RStudio Team, 2020).

Firstly, to perform a Multilevel Linear Regression, a Multilevel Confirmatory Factor Analysis (MCFA) was conducted. Since no variance was observed within subjects, we proceed on doing a Confirmatory Factor Analysis (CFA), in order to test the hypotheses using Standard Linear Regressions.

4.1 Reliability

The Omega (ω) family of coefficients (McDonald, 2013) is a form of measurement based on a correlation between different items on the same instrument (or between the same subscales on a longer instrument). Currently, some authors have been defending the transition of Cronbach Alpha - the most used in the psychology field (Hayes & Coutts, 2020) - to Omega since the first one tends to over or underestimate the population reliability (Flora, 2020; Hayes & Coutts, 2020). Especially for multidimensional scales, the omega coefficient is highly recommended since allows item scales and factor loadings to differ (Green & Yang, 2009) contrarily Cronbach's Alpha considers that every item has the same association with the latent variable (Furr & Bacharach, 2014).

Table 4.1 – Between Reliability

Scales	ω_{between}
ST	.99
CHALL	.95
TW	.96
TWV	.94
TWL	.98
SPILL	.97

Note. ST= Stereotype Threat; CHALL= Challenge Response; TW= Thriving at Work; TWV= Thriving at Work (Vitality); TWL= Thriving at Work (Learning); SPILL= Spillover Effect.

The interpretation of omega's coefficients is similar to Cronbach Alpha's, so .70 is acceptable for research purposes (Baguley, 2008; Kline, 2018; Nunnally & Bernstein, 1994). That being said, all scales present a good between-group reliability with values above .70.

4.2 Multilevel Confirmatory Factor Analysis (MCFA)

Wu and collaborators (Wu et al., 2017, p. 1) argue that a “Multilevel Confirmatory Factor Analysis (MCFA) extends the power of Confirmatory Factor Analysis (CFA) to accommodate the complex survey data with the estimation of the level-specific variance components and the respective measurement models”.

Right after running the created factors, the software displays warnings messages saying the following “Level-1 variable “X” has no variance within some clusters”. Right in this step, we had the indication that there would possibly be no variance in the responses of individuals over time.

To verify if a multilevel model would be suitable, Intraclass Correlation Coefficient (ICC) was measured. This measure is a ratio between the variation within each cluster and the total variance and explains what proportion of the total variance is explained by the cluster.

Table 4.2 – Intraclass Correlation Coefficient

	ICC
ST	-.10
CHALL	-.16
TW	-.14
TWV	-.11
TWL	-.14
SPILL	-.18

Note. ST= Stereotype Threat; CHALL= Challenge Response; TW= Thriving at Work; TWL= Thriving at Work (Learning); TWV= Thriving at Work (Vitality); SPILL= Spillover Effect.

ICC interpretation remains hard since there is not agreement upon the cut-off values. However, some authors (Kleiman, 2017) state that values closer to 1 can indicate multilevel modelling is not doable, indicating the variation is due to level 2. Other authors (Liljequist et al., 2019) admit negative ICC’s as poor estimates, stating that a possible motive can be due to a small sample. That being said, all results show a lack of significant variance over time within-person, making it impossible to proceed with the multilevel analysis.

4.3 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is an approach that makes it possible to verify whether the variables are associated with their respective presupposed factors, so the first step in the interpretation of the collected data was the modelling of the structural equations. We emphasize the fact that exploratory factor analysis of the data was not necessary since the variables (factors) investigated are in line with previous studies mentioned in the literature review (Ford et al., 1986). Also a CFA was thought to be best aligned with study purposes rather than construct indexes with the averages of the items, first because Thriving at Work has two dimensions which cannot be ignored and trespassed, but also because the relative weight of each item for the variable may not be equal (DiStefano et al., 2009).

The analyses have shown that the Two-Factor Models fitted the data better than the One-Factor Models. As table 4.3 shows, none of the adjustment index fitted the proposed model, on the contrary, the Two-Factor Model (Table 4.4) proved to be more adjusted than the single model, although with some indices at the threshold.

To be acceptable χ^2/df should not exceed 5, RMSEA $> .10$ is considered unacceptable and from $].05; .10]$ is acceptable but poor. TLI and CFI from $].9; .95]$ are considered good adjustment and from $].95; 1[$ very good adjustment (Xia & Yang, 2019).

All conceptual model associations were tested. First, *Stereotype Threat* in relation with *Thriving at Work* has shown ($\chi^2= 152.34$, $\chi^2/df= 42$, RMSEA= $.10$, TLI= $.95$, CFI= $.97$) better adjustment than the mix of the two ($\chi^2= 2321.10$, $\chi^2/df= 44$, RMSEA= $.43$, TLI= $.06$, CFI= $.25$). Regarding *Challenge Response* with the same dependent variable (*Thriving at Work*) the results have also shown ($\chi^2= 180.46$, $\chi^2/df= 42$, RMSEA= $.11$, TLI= $.93$, CFI= $.95$) a better adjustment than the results obtained in the One-Factor Model ($\chi^2= 910.19$, $\chi^2/df= 44$, RMSEA= $.26$, TLI= $.59$, CFI= $.67$).

Regarding the association of *Stereotype Threat* with the other dependent variable *Spillover* in a Two-Factor Model, results have shown ($\chi^2= 29.25$, $\chi^2/df= 8$, RMSEA= $.10$, TLI= $.97$, CFI= $.98$) a good adjustment to the proposed model in comparison with the ones obtained in a One-Factor Model ($\chi^2= 452.89$, $\chi^2/df= 9$, RMSEA= $.44$, TLI= $.42$, CFI= $.65$). Finally, between *Challenge Response* and *Spillover* the results demonstrated ($\chi^2= 20.63$, $\chi^2/df= 8$, RMSEA= $.08$, TLI= $.97$, CFI= $.99$) also a better fit than the One-Factor Model ($\chi^2= 239.03$, $\chi^2/df= 9$, RMSEA= $.32$, TLI= $.57$, CFI= $.74$).

Table 4.3 – One-Factor CFA

One Factor Models	χ^2	χ^2/df	RMSEA	TLI	CFI
ST+TW	2321.10	44	.43	.06	.25
CHALL+TW	910.19	44	.26	.59	.67
ST+SPILL	452.89	9	.44	.42	.65
CHALL+SPILL	239.03	9	.32	.57	.74

Note. df =degrees of freedom; RMSEA= root-mean square error of approximation; TLI= Tucker-Lewis index; CFI= comparative fit index. ST= Stereotype Threat, CHALL= Challenge Response, TW= Thriving at Work, SPILL= Spillover Effect.

Table 4.4 – Two-Factor CFA

Two-Factor Models	χ^2	χ^2/df	RMSEA	TLI	CFI
ST and TW	152.34	42	.10	.95	.97
CHALL and TW	180.46	42	.11	.93	.95
ST and SPILL	29.25	8	.10	.97	.98
CHALL and SPILL	20.63	8	.08	.97	.99

Note. df =degrees of freedom; RMSEA= root-mean square error of approximation; TLI= Tucker-Lewis index; CFI= comparative fit index. ST= Stereotype Threat, CHALL= Challenge Response, TW= Thriving at Work, SPILL= Spillover Effect.

In addition, a Three-Factor Model was tested to analyze if considering the two dimensions of *Thriving at Work (Learning and Vitality)* separately the data would show an even better adjustment. So, the results with the *Stereotype Threat* ($\chi^2= 121.88$, $\chi^2/df= 42$, RMSEA= .08, TLI= .87, CFI= .95) have also shown acceptable fit to the model regarding all fit indices except for the chi-square and TLI. Regarding the connection of *Challenge Response* with *Learning and Vitality*, the results were in the same direction ($\chi^2= 131.12$, $\chi^2/df= 42$, RMSEA= .09, TLI= .83, CFI= .94).

In conclusion, the model exhibited an acceptable fit regarding most fit indices except for the chi-square and TLI. Taking this into consideration, the models have presented a moderate adjustment to the proposed model and representation of the latent variable. Overall, the Two-Factor Model presents a better fit over the One-Factor Model, but the Three-Factor Model has also shown relatively well-adjusted indexes.

4.4 Linear Statistical Models (Regressions)

Since the Multilevel Analysis could not be done, once there was no significant variance within-person that could justify it, we conducted analyses not taking the longitudinal aspect into consideration. However, the software still considered all observations, thus resulting in a biased account of degrees of freedom. To overcome this limitation, we also did the analyses in SPSS using the first observation of each participant without missing data and using composite scores of the measures. Although using composite scores by averaging the items has the limitation of having items not contributing in the same way for latent factors, it was still preferred for the sake of simplicity, as the purpose was just to double check the results.

As discussed in the literature review, it was intended to evaluate through **Hypothesis 1:** Threat negatively predicted thriving, $\beta = -.20$, $t(280) = -2.16$, $p = .01$. Threat also explained a significant proportion of variance in thriving, R^2 marginal = .02, R^2 conditional = .25, $F(1, 280) = 6.32$, $p = .01$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). Conducting the simplified analysis with just one observation per participant, results were similar, but the effect is marginal: $\beta = -.37$, $t(41) = -1.93$, $p = .06$. Threat also explained a marginally significant proportion of variance in thriving, $R^2 = .08$, $F(1, 41) = 3.73$, $p = .06$. Thus, some support for hypothesis 1 was provided.

Regarding **Hypothesis 2:** The challenge response was positively related to thriving at work. The results have shown some support ($\beta = .27$, $t(279) = 3.09$, $p = .002$) assuming a positive relationship among the variables. Challenge also explained a significant proportion of variance in thriving, R^2 marginal = .03, R^2 conditional = .23, $F(1, 279) = 9.54$, $p = .002$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). However, when considering just one observation per participant, the association was still positive, but not significant $\beta = .10$, $t(41) = 0.63$, $p = .53$. Thus, support for hypothesis 2 is inconclusive.

Relatively to **Hypothesis 3:** The threat response is positively related to negative spillover. The results provide some support ($\beta = .24$, $t(250) = 6.28$, $p < .01$) for the hypothesis,

by assuming a positive relationship between stereotype threat and spillover effect. Threat also explained a significant proportion of variance in spillover, R^2 marginal = .25, R^2 conditional = .52, $F(1, 249) = 6.13, p = .02$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). Conducting the simplified analysis with just one observation per participant, results were similar: $\beta = .48, t(41) = 3.53, p < .001$. Threat also explained a marginally significant proportion of variance in spillover, $R^2 = .23, F(1, 41) = 12.49, p < .001$. Thus, some support for hypothesis 3 was provided.

Finally, regarding **Hypothesis 4**: The challenge response is negatively related to negative spillover effect. The data analysis did not support the proposed hypothesis ($\beta = .15, t(250) = 6.30, p = .020$) since results have demonstrated a positive relation between the predictor and outcome variable instead. Challenge also did not explained a significant proportion of variance in spillover, R^2 marginal = .12, R^2 conditional = .46, $F(1, 250) = 9.71, p = .051$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). Conducting the simplified analysis with just one observation per participant, results were similar but not significant: $\beta = .25, t(41) = 1.64, p = .11$. Thus, no support for hypothesis 4 was provided.

Due to incongruences in the literature regarding the *Thriving at Work* construct with the probable independence of its two dimensions (*Learning* and *Vitality*) (Abid & Contreras, 2022; Kleine et al., 2019; Oliveira, 2021a) and since the Three-Factor Model in the Confirmatory Factor Analysis showed a good adjustment, additional analysis were tested considering the two dimensions separately.

The relation between *Stereotype Threat* and *Thriving at Work (Learning)* (**Additional Analysis 1**) was not found to be significant ($\beta = -.14, t(281) = -1.43, p = .154$). Threat also did not explained a significant proportion of variance in thriving (learning), R^2 marginal = .08, R^2 conditional = .27, $F(1, 281) = 2.05, p = .137$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). Conducting the simplified analysis with just one observation per participant, results were similar: $\beta = -.14, t(41) = -0.88, p = .39$.

However, the relation between *Stereotype Threat* and *Thriving at Work (Vitality)* (**Additional Analysis 2**) has been supported ($\beta = -.36, t(267) = -3.42, p < .001$). Threat explained a significant proportion of variance in thriving (vitality), R^2 marginal = .05, R^2 conditional = .19, $F(1, 267) = 11.68, p < .001$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). Conducting the simplified

analysis with just one observation per participant, results were similar: $\beta = -.38$, $t(41) = -2.64$, $p = .01$.

As for the relation between *Challenge Response* and *Thriving at Work (Learning)* (**Additional Analysis 3**) was found to be significant and with a positive relation ($\beta = .26$, $t(281) = 2.64$, $p = .009$). Challenge explained a significant proportion of thriving (learning), R^2 marginal = .02, R^2 conditional = .25, $F(1, 281) = 6.95$, $p = .008$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). However, conducting the simplified analysis with just one observation per participant, results were in the same direction, but not significant: $\beta = .11$, $t(41) = 0.68$, $p = .50$.

Also, *Challenge Response* in relation with *Thriving at Work (Vitality)* (**Additional Analysis 4**) is proved to be significant and with a positive relation ($\beta = .27$, $t(272) = 2.39$, $p = .018$). Challenge explained a significant proportion of thriving (vitality), R^2 marginal = .02, R^2 conditional = .16, $F(1, 272) = 5.70$, $p = .015$. (note: marginal R^2 considers only the variance of the fixed effects, and conditional R^2 takes both fixed and random effects). However, conducting the simplified analysis with just one observation per participant, results were in the same direction, but not significant: $\beta = .07$, $t(41) = 0.647$, $p = .64$.

In spite of these preliminary findings, results need to be taken with caution because although statistical power was not an issue for the longitudinal design, it is underpowered considering one measurement per person (being the number of participants a total of only 44, and two of them did not answer the dependent measures).

CHAPTER 5

Discussion

The purpose of this research was to examine reactions to negative age-based meta-stereotypes and its relation with thriving at work and spillover. Indeed, the way people think others perceive them is not necessarily an accurate reflection of what others actually think of them (Finkelstein et al., 2012), but as the results of this research suggest, negative age-based meta-stereotypes may impact both work experience and personal life. Negative meta-stereotypes might be considered a stressor on the job, and these have the power to negatively impact workers (Oliveira, 2021). Negative meta-stereotypes are likely to produce both negative reactions (e.g., threat) and behavioral responses (e.g., avoidance and conflict), than they are likely a positive impact (e.g. boost engagement) (Finkelstein et al., 2015). Actually, even positive meta-stereotype has a probability of inducing negative responses, so this really motivates to better understand meta-stereotypes consequences. As Finkelstein and colleagues (2015) (Figure 2.3) demonstrate, even the challenge reaction is much more likely to lead to a conflict behavioral response than to engagement. That being said, all non-neutral reactions arising from negative meta-stereotypes have a probability of, sooner or later, have a negative impact. The major difference between the Threat and the Challenge Response is that the Threat clearly triggers negative outcomes, whereas Challenge may or may not trigger negative outcomes depending on antecedents and/or intrapersonal variables (e.g., self-core evaluations) (Finkelstein et al., 2015). The hypotheses were formulated with this assumption in mind, i.e., possibly in a seven-day intensive longitudinal study, harmful effects of Threat would be observed on the dependent variables, whereas for Challenge, the durability of the study would only capture the "positive" motivational phase of the participants, before individuals would or would not – depending on several intrapersonal characteristics – enter "negative" decay phase, once Challenge takes longer to cause emotional attrition (Finkelstein et al., 2015; Finkelstein et al., 2020).

A daily diary study (ESM/EMA methodology) was conducted to capture within-person variance in the dependent variables. Data was collected through questionnaires displayed on participants own smartphone via SEMA3 software. During seven working days, participants had to answer a mean of two surveys a day (a total of 15 observations per participant). In the first day participants could answer the baseline questionnaire (Q1), another questionnaire up to one hour after leaving work (Q2) and a final one at least one hour after arriving home (Q3). In

the following six days, only had to answer Q2 and Q3, always in the same time range (interval-contingent design). However, data analyses showed no support for any of the hypotheses at the longitudinal multilevel level because there was no within-person variation over time. Limitations and justifications for why this might have happened will be further discussed in this chapter. Thus, all conclusions drawn refer only to variations between individuals and should be interpreted with caution, because although the number of observations is adequate for a multilevel longitudinal study, the number of participants alone is low for the analyses performed, thus threatening the statistical power of the results. Nevertheless, it was possible to draw some conclusions about the formulated hypotheses, which we will now describe.

Regarding the negative effect of Age-Based Threat on Thriving at Work postulated by Hypothesis 1, which was found to be marginally significant, which is in line with what is proposed in the theory. Employees who experience thriving at work supposedly create new resources, learn more easily, and have stronger social relationships, which consequently contributes to better performance while improving employee health (Porath et al., 2012; Prem et al., 2017). Kulik's (2014) research indicated that stereotype threat can make employees work harder but not necessarily better. For example, in addition to the drop in productivity, Kalokerinos and collaborators (2014) address the fact that stereotype threat is often related to low levels of job satisfaction and commitment, including, increasing the turnover rate.

On the other hand, reaction to a specific demand under stress may vary from individual to individual according to their cognitive evaluation. What some see as a threat, others perceive as a challenge or an opportunity (Lazarus & Folkman, 1984; Quick et al., 1997). Regarding Challenge Response (Hypothesis 2), results have not showed a significant result failing to corroborate what is in line with the literature. Thriving at work has benefits, not only for employees, but also for the organizations in which they work. Prem and colleagues (2017), based on the literature on stress and challenge, found information supporting the premise that challenge positively affects learning at work. Some authors (Alter et al., 2010) even defend that challenge is a more adjusted response to negative meta-stereotypes than stereotype threat, stating that reframing stereotype threat as challenge may decrease its negative consequences. However, this does not seem to be true to all age groups. For example, a negative association between challenge reaction and thriving at work (learning) has been demonstrated for older workers (LePine et al., 2004; Lepine et al., 2005). Contrarily, as for young workers, challenge response has a positive effect on both dimensions of thriving at work (LePine et al., 2005; LePine et al., 2004; Prem et al., 2017).

As for Hypothesis 3, was based on what is called in the literature by stereotype threat spillover, referring to the prediction that dealing with negative stereotypes and meta-stereotypes has negative effects, namely on decreasing capacity to cope with one's every aspect of life (Inzlicht & Kang, 2010). For a long time, the magnitude of stereotype threat has been underestimated (Inzlicht et al., 2011; Inzlicht & Kang, 2010), however, as the results of Hypothesis 3 state, the negative effects go beyond the threatening environment (work context). The corroboration of this hypothesis can contribute to establish the power of stereotype threat negatives effects, which interferes with personal sphere, in terms of work-family bidirectional relationship (Kang & Inzlicht, 2014). Having a stereotype threat response triggers a physiological stress response and, thus, all tasks requiring self-control are compromised since cognitive resources are diverted. Furthermore, emotional responses become maladjusted and deregulated. People who experience stereotype threat in the work context may be able to maintain their performance, but "at what cost?" (Kang & Inzlicht, 2014, p. 454).

Regarding Challenge Response on Negative Spillover Effect (Hypothesis 4), the results have not shown significancy. As challenge response is considered to be more adaptive than stereotype threat (Alter et al., 2010), it was expected that this positive effect would also positively transfer to the personal sphere. Based on work-family conflict theory (Zedeck & Mosier, 1990) who argue these (work life vs private life) are two incompatible environments, since they demand different roles and have opposite norms (i.e., affective/emotional role at home vs dissociation with oneself to be a professional facet more structured and rational). The difficulty of managing different facets of oneself (e.g., worker, parent, partner etc.) is due to limited time and cognitive resources, especially if there is a challenge (e.g., negative age-based meta-stereotypes) in the workplace. This result could have contradicted what was initially thought to happen within the short-term longitudinal study, which would be a "snapshot" capture of the positive effect for work and life domains, since, when experiencing a challenge response, the individual would feel energized, motivated, proud (Finkelstein et al., 2015) and, as such, would overflow these negative feelings to the family context. This non-significant results regarding challenge effects on thriving at work and spillover, leave us wondering if challenge is really a better response than the stereotype threat response? This response is still understudied when compared to stereotype threat, and most of its studies were conducted only for the within-work context (Finkelstein et al., 2020; Finkelstein et al., 2015) overlooking other possible effects (e.g., negative spillover to home).

Finally, regarding the additional analyses, these were done to help disentangle an inconsistency in the literature regarding the two dimensions of thriving at work. More

specifically, besides thriving at work being a relative new construct, authors (Porath et al., 2012) had difficulties since its measurement conceptualization. More precisely, the vitality dimension had items in the literature remitting to a state or a feeling, but the already existing scales to measure the learning dimension framed it as a personality (fixed) trait (Kleine et al., 2019). To overcome this problem the authors created new measurement items in order to capture a “subjective experience of momentary learning at work” (p. 975).

As it was first conceptualized by Spreitzer and colleagues (2005), to experience thriving, high levels of both learning and vitality should be present. However, studies have been demonstrating dissonant results on both dimensions (Oliveira, 2021). These inconsistencies were shown in analyses where the same independent variable was tested with each thriving at work dimension separately and had different outcomes (Prem et al., 2017). For example, Oliveira (2021) showed negative age-based meta-stereotypes do not impact thriving in terms of vitality but seem to negatively impact skills’ learning among older workers. Given these inconsistencies, researchers are seeing added value in conducting more studies that treat the construct as a whole, but also taking into account the two dimensions separately (Kleine et al., 2019; Oliveira, 2021b). Moreover, there are studies advocating learning and vitality have an intrinsically distinct nature (Harari et al., 2016; Viswesvaran et al., 2002). Kleine and collaborators (2019) suggested more longitudinal studies in their meta-analysis, namely using a daily diary typology, to identify whether “thriving reflects a work-related psychological state or should be captured as a trait, meaning some people are inherently more or less predisposed to thrive at work” (p. 992). In this sense, although our longitudinal approach was not fully possible, the Additional Analyses conducted have shown interesting results to enlightening this current discussion about the thriving concept.

Although Additional Analysis 1, 3 and 4 have not shown significant results when considering one observation per participant, Additional Analysis 2, testing the relation with threat reaction and thriving at work (vitality), demonstrated a negative significant relation which is in consonancy with Hypothesis 1. We suggest further studies to also do analysis with thriving at work’s dimensions separately, perhaps threat and challenge will behave differently with each dimension, an effect that is already being demonstrating in some studies.

5.1 Practical Implications

There are several practical implications of this research, first, the vast majority of studies on meta-stereotypes at work are conducted in artificial contexts (e.g., laboratories) or outside the context studied, with few studies actually conducted in the organizational context (Kalokerinos et al., 2014). Furthermore, the fact there are variables that could vary from day to day or the fact there are variables there is simply not much point in the central focus being a between-person comparison, it's not being taken into account in the choice of methodologies for most studies (Scheibe & Moghimi, 2021). Aware of this gap, this master's dissertation used the daily diary studies' methodology in order to capture within-person variations which although failed, allowed for data collection in natural settings, through the SEMA3 smartphone app. Although the within-person variation was not significant enough to proceed with multilevel analysis, which may be due to some limitations of the study that will be addressed below, the truth is the data collection methodology has advantages that can be useful not only for academia but also for industry, such as measuring dynamic processes and assessing over multiple contexts, for example (Kalokerinos, 2020).

In addition to the methodology, other contribution of this master's dissertation was the additional conduct of a preliminary test which contributed to understanding the Portuguese reality with regard to the stereotypes associated with each age group. Interestingly there wasn't significant difference between stereotypes associated with young and older adults, being the middle-agers the "mediators" of this significance. This might be due to the fact that participants are aware of the youngest and oldest being the most discriminated leaving them reluctant to attribute them stereotypes. Additionally, the fact that the sample of the preliminary study was composed by a majority of young participants (88 people) may indicate their awareness of any kinds of discrimination, and therefore unintentionally protected the oldest generation, seen as the most discriminated.

Moreover, this master's dissertation brings placements to the discussion about the thriving at work construct that deserves all the attention of researchers. Although all analysis with challenge response failed to present significance, this might be due study limitations, discussed right below.

5.2 Limitations and suggestions for future studies

Science is an on-going process. Though it uses a scientific method is not free of limitations. Limitations should never be seen as failures, but instead, as added value to understand how to do better in the future and strengthen the scientific method. With that being said, in this section the limitations of this study will be enumerated as well as suggestions to overcome them.

The first limitation has to do with the lack of variance that made multilevel analysis impossible. We theorize that, the reason for not having within-person variation might be due the fact that, in the course of seven working days, no age-based meta-stereotype has been activated. Although it was measured, due to complexity of the analysis and time constraints this variable could not be included in the model, however, a superficial composite mean analysis indicated a low meta-stereotype activation ($M=2.67$, $SD=.69$) which can be a potentially justification for no variance over time. Experts suggest seven days is the minimum to capture within-person variations with longer duration decreasing compliance. So far, only up to one month was tested (Kalokerinos, 2020). Maybe seven days was not enough to capture threat and challenge reactions since it is a reaction could need more days to reveal itself. In this matter, we advise future researchers to replicate this study for a few more days, for at least two weeks, and include age-based meta-stereotype activation in the model, or maybe use a more sensible variables such as emotions. Another limitation is related to the fact that some of the participants who took part in the study had previously answered the preliminary study, which could have influenced the results since participants already imagined it could be related to age stereotypes. In the perfect scenario these should have been two independent samples. Additionally, as initially thought, stereotypes arising from the preliminary study (Study 1) were to be included on the main study (Study 2) questionnaire, however SEMA3 also presented limitations regarding questions ramifications (e.g., if the participant is young, then specific stereotypes appear). However, in the meantime, other ESM/EMA tools have already been discovered, for instance as Project Mycap or Ethica.

Regarding the challenges faced across data collection, besides the fact this type of methodology is time-consuming and resource-intensive for both the participant and the researcher (Kalokerinos, 2020), the major challenge experienced was the briefing. The sample being from different organizations made it difficult to reach all and attended to their specific necessities. The video for the briefing was made along with several e-mails with explanations, besides personal contacts (e-mail and phone number) were supplied in order to resolve day-to-day issues. Also, the participants had difficulties with SEMA3 app it was a demanding process

to reach out for everyone. Besides, the version utilized also had some limitations, for example, the problem on registering participants with certain types of electronic mail or some mishap with the notifications that were very were related to the model/brand of smartphone used by the participant. Another obstacle faced was to make people understand the type of research without giving too many details that could bias the study. Many participants did not understand the need to answer the same questions so many times a day and for so long and kept asking if they could answer for a shorter period of time, perhaps that might have influenced dropout rate (20%).

The sample itself had some limitation, for instance, a sample of 44 participants was appropriate for idiographic approaches but small for nomothetic approach (Kalokerinos, 2020). Also, the sample did not come from the same organization may be a limitation, since in across different professional contexts age perception changes for example, a 35 year old worker is not the same in the sports or academic context.

Finally, *“if I had all the money and time in the world...”*, there would a lot of other variables and questions I would have joyed to address and will leave in discussion for further studies. For instance, future studies could encompass comparative analyses between age groups which was not possible for this master’s thesis since, considering Finkelstein and collaborators (2013) classification of age ranges classifies 18 to 30 years old as young worker, 31 to 50 as middle-age worker and from 51 up as older worker, we did not have a sample with age homogeneity. Nevertheless, it would be interest to understand if in some age group there is more threat response than in others, or more challenge, for instance according to Tajfel and Turner (1986) middle-agers in a favorable position in relation to the others, their reaction to the behavior of others towards themselves will depend on whether they interpret it as support or an affront to their status, which could influence their response to negative meta-stereotype activation. Thus, when interpreted as a threat, this group can reacts defensively, justifying its group status attributing the advantages to personal skills (Branscombe & Miron, 2004). Some existing studies have already done these comparative analyses, some demonstrating challenge response is more common in younger workers (Oliveira, 2021b). Others (Finkelstein et al., 2020) state age is not a determining factor in this prediction, but self-core evaluations are. In this case, variables such as self-efficacy, self-esteem, internal locus of control, emotional stability, resilience, etc. (Blascovich & Mendes, 2000; Finkelstein et al., 2020) could be considered as determinants of a certain response or even associated with age groups.

Additionally, it would be interesting not only to compare between age groups but gather participants perception of age to understand how they perceive themselves regardless of their

biological age, and to comparative studies with this also with this variable, since how a person perceives themselves will influence their age meta-stereotypes.

Lastly, it would be interesting to study age differences also in the dependent variables. For instance, young people have less resources to deal with stressors in general, ending up being more likely to spillover (Diehl et al., 1997; Gross et al., 1997). Also, thriving (vitality) associated with task performance has age as a moderator, increasing along with aging (Kleine et al., 2019).

Another variable it would be interesting to control is sex, since recent studies have been demonstrating ageism affect men and women differently, with women being more likely to experience stereotype threat than men (Lamont et al., 2015). For instance, middle-age women reportedly suffer more ageistic discrimination in regards with beauty standards which can shake their self-esteem (Antonucci et al., 2010; Fredrickson & Roberts, 1997).

The topic of this research is very broad and there are many other factors that could also have been measured and evaluated, but would have made the research much more complex, extensive, and unfocused. For example, the feeling of need for social support increases in the presence of stressors, in this case, the existence of age stereotypes in the workplace increases the need for social support (Menkin et al., 2016). Also, the sense of thriving at work is strongly associated with social support, as workers who report thriving at work more easily possess and create resources to overcome difficulties, namely stronger social relationships (Prem et al., 2017; Porath et al., 2012). Although a workplace characterized by a high level of social support is associated with a low rate of age discrimination (Chou & Choi, 2011), even when it exists, perceived social support ameliorates its negative effects (Redman & Snape, 2006). Additionally, a high level of perceived organizational support positively impacts social support attitudes toward coworkers (Rhoades & Eisenberger, 2002) which is the strongest predictor of thriving at work (Kleine et al., 2019). The literature reports perceived organizational support may be the aggravating factor of perceived ageism, or the softening factor of it, thus having a moderating effect on its impact (Bytheway, 2005; Snape & Redman, 2003). Low perceived organizational support can easily activate ageist meta-stereotypes, leading employees to think they are valued less or treated differently because of their age (Rabl, 2010). Even pointing to more macro differences, that is, for instance, a cross-cultural comparison between cultural differences demarcating modern societies – cultural individualism (vs. collectivism). Generally, cultural individualism is governed by the respect and tolerance of all individuals, regardless of the differences between them, whereas in collectivist cultures, the form of treatment will depend on the social group to which the other belongs (Finuras, 2017). In general, ageism is more

widespread in Western societies (Palmore, 1982), but it is also in Western and industrialized countries where anti-age policies exist the most and, simultaneously, the levels of discrimination against young people are the highest (Bratt et al., 2018). In this case, both policies and people's individual actions follow a policy of selective equality. They generally follow the trend of prioritizing equality for groups seen as more dependent, than for groups that may unsettle the prevailing culture or normativity (Abrams et al., 2015). This is in line with what is proposed by the Stereotype Content Model (Fiske et al., 2002), with regard to older people who are perceived as having high levels of sociability and low levels of competence, triggering paternalistic feelings, such as pity, desire to help and protect (social policies also go in this direction), also fostering respect for the wisdom of older adults. Therefore, it is concluded that there might be a greater discrimination against young people the more industrialized the country, as they are more perceived as a threat compared to the older ones (Bratt et al., 2018). It should be noted that, compared to other age groups, young people have age meta-stereotypes more accessible in the work context, since it is in this context they report feeling more ageist discrimination.

Finally, studies focusing on the financial impacts that age-related biases may bring to organizations (e.g., early retirement costs, recruitment and selection expenses, costs of poorly performed training or handover) would be interesting and may provide some answers on how organizations can reduce costs of illness and absenteeism.

5.3 Conclusions

As the age landscape of our workplaces continues to become more diverse, only by improving our understanding of the social processes underlying age diversity experiences can we begin to facilitate positive and productive interactions and positive interactions between individuals of different age groups in the workplace (Finkelstein et al., 2012). Ageism is about what we believe (stereotypes), how we behave (discrimination), and what we feel (prejudice) based on age, either in relation to ourselves or to others (WHO, 2021) and, in the in the workplace, the theme reaches all age groups.

In order to contribute to the literature on age in the work context, this master's dissertation research stipulated the main objective of understanding how stereotype threat and challenge reactions arising from negative age-based meta-stereotypes would impact on professional and personal aspects of workers life, namely sense of thriving at work and negative

spillover effect to home respectively by using a research methodology and software of data analysis that is gaining relevance in academia.

This master's dissertation research tried to identify how people react to negative age-based meta-stereotypes, assuming that both reactions can have negative impacts, however this negative impact is much more likely of the reaction stereotype threat than with challenge response. It is important that leaders and managers understand that negative age-based meta-stereotype can negatively impact interpersonal behaviors in the workplace, by creating conflicts or avoidance behaviors with little less probability to create engagement (Finkelstein et al., 2015). The prime goal of this master's dissertation is to raise awareness to organizations leaders or team managers regarding the importance of ageism topic, to keep them conscious of these behaviors (threat and challenge reactions) in the workplace in order to find ways to dissolve possible resulting issues. By bringing attention to the power of negative age-based meta-stereotypes, it is important that organizations understand the inevitable dissociation of human's life systems (i.e., work-home). The results obtained demonstrated that stereotype threat had negative effects on thriving at work and spillover effect, however challenge response lack significance. Hopefully, organizations are becoming more and more concern with employers well-being and work-life balance practices (Danna & Griffin, 1999; Fiksenbaum, 2014), maybe because they understand its importance for workers performance (Beauregard & Henry, 2009) resulting in the organization saving costs (Khallash & Kruse, 2012).

One indication that the research brings to managers is to look for ways to mitigate conflict, for example putting into practice Contact Hypothesis conditions (Allport, 1954) in their work environments to reinforce a sense of collectivity (King et al., 2019). Also, ageism should be discussed openly with employers; anti-ageist policies should exist and be explicitly transmitted to the collaborators and mostly diversity advantages should be enhanced such its benefits in terms of knowledge, innovation and development (Østergaard et al., 2011).

Age diversity in the workplace is no longer just a question of ethics, but also a market obligation. The aging population presents a number of challenges for governments (Vauclair et al., 2016) and therefore for organizations. Organizations need to be more aware of the potential detrimental effects of negative age meta-stereotypes in the workplace (Oliveira & Cabral-Cardoso, 2018). Therefore, it is critical that managers understand the conditions that facilitate positive and productive interactions between individuals of different age groups in the workplace (Finkelstein et al., 2013), as age diversity will be a prevalent feature in work groups in the future (Ellwart et al., 2013).

Sources

- Age at Work Project (n.d.). Bidirectional ageism and fairness perceptions in the workplace: Helping to realize the potential of age diversity in organizations. Retrieved September 17, 2022, from <http://ageatwork.com/research/>
- Finuras, P. (2017). Individualismo ou coletivismo? Descubra as diferenças! LinkedIn Post. <https://www.linkedin.com/pulse/individualismo-e-coletivismo-descubra-diferencas-paulo-finuras/?originalSubdomain=pt>
- INE. (2020). Projeções de População Residente em Portugal. https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaques&DESTAQUESdest_boui=406534255&DESTAQUESmodo=2&xlang=pt
- INE. (2021). Tábuas de Mortalidade em Portugal. https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaques&DESTAQUESdest_boui=472914979&DESTAQUESstema=55466&DESTAQUESmodo=2
- Jornal de Negócios. (2022). Dados do INE confirmam descida da idade da reforma no próximo ano. <https://www.jornaldenegocios.pt/economia/seguranca-social/detalhe/dados-do-ine-confirmam-descida-da-idade-da-reforma-no-proximo-ano>
- Jornal de Notícias (2021). Portugal integra projeto europeu de combate ao idadismo. <https://www.jn.pt/nacional/portugal-integra-projeto-europeu-de-combate-ao-idadismo-14701520.html>
- Organisation for Economic Co-operation and Development (OECD). (2020). Promoting an Age-Inclusive Workforce: Living, Learning and Earning Longer. OECD Publishing . <https://doi.org/10.1787/59752153-en>
- PORDATA. (2021a). Indicadores de envelhecimento. [://www.pordata.pt/Portugal/Indicadores+de+envelhecimento-526](https://www.pordata.pt/Portugal/Indicadores+de+envelhecimento-526)
- PORDATA. (2021b). Taxa de desemprego: total e por grupo etário. [https://www.pordata.pt/Portugal/Taxa+de+desemprego+total+e+por+grupo+etario+\(percentagem\)-553](https://www.pordata.pt/Portugal/Taxa+de+desemprego+total+e+por+grupo+etario+(percentagem)-553)
- PORDATA. (2022a). Alunos matriculados no ensino superior: total e por sexo.

<https://www.pordata.pt/Portugal/Alunos+matriculados+no+ensino+superior+total+e+por+sexo-1048>

PORDATA. (2022b). Média de idades dos novos pensionistas de velhice e invalidez da Segurança Social: total e por sexo. <https://www.pordata.pt/Portugal/M%C3%A9dia+de+idades+dos+novos+pensionistas+d+e+velhice+e+invalidez+da+Seguran%C3%A7a+Social+total+e+por+sexo-1121>

Público. (2020). Os riscos do teletrabalho, entre dificuldade em desligar e isolamento profissional. <https://www.publico.pt/2020/04/08/impar/noticia/riscos-teletrabalho-dificuldade-desligar-isolamento-profissional-1911371>

RStudio Team (2020). RStudio: Integrated Development for R. (4.2.1). RStudio, PBC. <https://www.rstudio.com/>

Sábado. (2021). Comissão Europeia estuda regulação do direito a desligar do trabalho na UE. <https://www.sabado.pt/ultima-hora/detalhe/comissao-europeia-estuda-regulacao-do-direito-a-desligar-do-trabalho-na-ue>

União das Misericórdias Portuguesas. (2021). Respostas seniores do futuro: Um modelo de respostas especializadas integradas. https://backoffice.ump.pt/files/files/Envelhecimento_UMP_Maio2021.pdf?fbclid=IwAR3bu6Ia90JVXSK2r09MzuEplGi2BZEibDWDpPakpiRz9T-2y5wTeX9qWEY

WHO (2021). Relatório Mundial sobre o Idadismo. <https://www.who.int/pt/publications/i/item/9789240020504>

Bibliographic References

- Abid, G., & Contreras, F. (2022). Mapping Thriving at Work as a Growing Concept : Review and Directions for Future Studies. *Information, 13*, 3–20.
<https://doi.org/https://doi.org/10.3390/info13080383>
- Abrams, D., Houston, D. M., Van de Vyver, J., & Vasiljevic, M. (2015). Equality hypocrisy, inconsistency, and prejudice: The unequal application of the universal human right to equality. *Peace and Conflict: Journal of Peace Psychology, 21*(1), 28–46.
<https://doi.org/10.1037/pac0000084>
- Allport, G. W. (1954). The Effect of Contact. In *The Nature of Prejudice* (1st ed., pp. 261–282). Addison-Wesley Publishing Company.
- Alter, A. L., Aronson, J., Darley, J. M., Rodriguez, C., & Ruble, D. N. (2010). Rising to the threat: Reducing stereotype threat by reframing the threat as a challenge. *Journal of Experimental Social Psychology, 46*(1), 166–171.
<https://doi.org/10.1016/j.jesp.2009.09.014>
- Antonucci, T. C., Blieszner, R., & Denmark, F. L. (2010). Psychological perspectives on older women. In H. Landrine & N. F. Russo (Eds.), *Handbook of diversity in feminist psychology* (pp. 233–257). Springer Publishing Co.
- Arango-Kure, M., Garz, M., & Rott, A. (2014). Bad News Sells: The Demand for News Magazines and the Tone of Their Covers. *Journal of Media Economics, 27*(4), 199–214.
<https://doi.org/10.1080/08997764.2014.963230>
- Areosa, J., & Queirós, C. (2020). Burnout. *International Journal on Work Condition, 20*, 71–90.
- Ayalon, L., & Tesch-Römer, C. (2017). Taking a closer look at ageism: self- and other-directed ageist attitudes and discrimination. *European Journal of Ageing, 14*(1), 1–4.
<https://doi.org/10.1007/s10433-016-0409-9>
- Baguley, T. (2008). The perils of statistics by numbers. *The Psychologist, 21*(3), 224–227.

- Bakker, A. B., Demerouti, E., & Burke, R. (2009). Workaholism and relationship quality: A spillover-crossover perspective. *Journal of Occupational Health Psychology, 14*(1), 23–33. <https://doi.org/10.1037/a0013290>
- Bakker, A., & Demerouti, E. (2013). The Spillover-Crossover Model. In J. Grzywacz & E. Demerouti (Eds.), *New Frontiers in Work and Family Research* (pp. 71–92). Psychology Press. <https://doi.org/10.4324/9780203586563-13>
- Barber, L. K., Taylor, S. G., Burton, J. P., & Bailey, S. F. (2017). A self-regulatory perspective of work-to-home undermining spillover/crossover: Examining the roles of sleep and exercise. *Journal of Applied Psychology, 102*(5), 753–763. <https://doi.org/10.1037/apl0000196>
- Beal, D. J. (2015). ESM 2.0: State of the Art and Future Potential of Experience Sampling Methods in Organizational Research. *Annual Review of Organizational Psychology and Organizational Behavior, 2*, 383–407. <https://doi.org/10.1146/annurev-orgpsych-032414-111335>
- Beauregard, T. A., & Henry, L. C. (2009). Making the link between work-life balance practices and organizational performance. *Human Resource Management Review, 19*(1), 9–22. <https://doi.org/10.1016/j.hrmr.2008.09.001>
- Beilock, S. L., Rydell, R. J., & McConnell, A. R. (2007). Stereotype threat and working memory: Mechanisms, alleviation, and spillover. *Journal of Experimental Psychology: General, 136*(2), 256–276. <https://doi.org/10.1037/0096-3445.136.2.256>
- Bidwell, M., Briscoe, F., & Fernandez-mateo, I. (2013). *The Employment Relationship and Inequality: How and Why Changes in Employment Practices are Reshaping Rewards in Organisations*. 1–89.
- Blackham, A. (2019). Young Workers and Age Discrimination: Tensions and Conflicts. *Industrial Law Journal, 48*(1), 1–33. <https://doi.org/10.1093/indlaw/dwy004>
- Blascovich, J., & Mendes, W. B. (2000). Challenge and threat appraisals: The role of affective cues. In J. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 59–82). Cambridge University Press.

- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary Methods: Capturing Life as it is Lived. *Annual Review of Psychology*, 54(1), 579–616. <https://doi.org/10.1146/annurev.psych.54.101601.145030>
- Bouazzaoui, B., Follenfant, A., Ric, F., Fay, S., Croizet, J. C., Atzeni, T., & Tacconat, L. (2016). Ageing-related stereotypes in memory: When the beliefs come true. *Memory*, 24(5), 659–668. <https://doi.org/10.1080/09658211.2015.1040802>
- Bousfield, C., & Hutchison, P. (2010). Contact, Anxiety, and Young People’s Attitudes and Behavioral Intentions Towards the Elderly. *Educational Gerontology*, 36(6), 451–466. <https://doi.org/10.1080/03601270903324362>
- Branch, L. G., Harris, D., K., & Palmore, E., B. (2005). *Encyclopedia of Ageism*. Haworth Pastoral Press.
- Branscombe, N., R., & Miron, A., M. (2004). Interpreting the ingroup’s negative actions toward another group: Emotional reactions to appraised harm. In Z. Tiedens, L. & W. Leach, C. (Eds.), *The social life of emotions* (pp. 314–335). Cambridge University Press.
- Bratt, C., Abrams, D., & Swift, H. J. (2018). Supplemental Material for Perceived Age Discrimination Across Age in Europe: From an Ageing Society to a Society for All Ages. *Developmental Psychology*, 54(1), 167–180. <https://doi.org/10.1037/dev0000398.supp>
- Bratt, C., Abrams, D., & Swift, H. J. (2020). Supporting the old but neglecting the young? The two faces of ageism. *Developmental Psychology*, 56(5), 1029–1039. <https://doi.org/10.1037/dev0000903>
- Brofenbrenner, U. (1977). Toward an Experimental Ecology of Human Development. *American Psychologist*, 32, 513–531.
- Burr, V., & Dick, P. (2017). Social Constructionism. In E. Parry & J. McCarthy (Eds.), *The Palgrave Handbook of Critical Social Psychology*. Palgrave Macmillan.
- Butler, R. (1969). Age-ism: another form of bigotry. *Gerontologist*, 9(4), 243–246.
- Butler, R. N. (1980). Ageism: A Foreword. *Journal of Social Issues*, 36(2), 8–11. <https://doi.org/10.1111/j.1540-4560.1980.tb02018.x>

- Bytheway, B. (2005). Ageism and Age Categorization. *Journal of Social Issues*, 61(2), 361–374. <https://doi.org/10.1111/j.1540-4560.2005.00410.x>
- Calasanti, T. (2016). Combating Ageism: How Successful Is Successful Aging? *The Gerontologist*, 56(6), 1093–1101. <https://doi.org/10.1093/geront/gnv076>
- Cameron, P. (1970). The generation gap: Which generation is believed powerful versus generational members' self-appraisals of power. *Developmental Psychology*, 3(3, Pt.1), 403–404. <https://doi.org/10.1037/h0030050>
- Carlson, D., Ferguson, M., Hunter, E., & Whitten, D. (2012). Abusive supervision and work–family conflict: The path through emotional labor and burnout. *The Leadership Quarterly*, 23(5), 849–859. <https://doi.org/10.1016/j.leaqua.2012.05.003>
- Cary, L. A., Chasteen, A. L., & Remedios, J. (2016). The Ambivalent Ageism Scale: Developing and Validating a Scale to Measure Benevolent and Hostile Ageism. *The Gerontologist*, gnw118. <https://doi.org/10.1093/geront/gnw118>
- Castro, G. G. S. (2015). Precisamos discutir o idadismo na comunicação. *Comunicação & Educação*, 20(2), 101. <https://doi.org/10.11606/issn.2316-9125.v20i2p101-114>
- Chanaz Gargouri, & Carla Guaman. (2017). Discriminating Against Millennials in the Workplace Analysis on Age Discrimination Against Young Adults. *Journal of US-China Public Administration*, 14(1). <https://doi.org/10.17265/1548-6591/2017.01.004>
- Cherry, K. E., & Palmore, E. (2008). Relating to Older People Evaluation (ROPE): A Measure of Self-Reported Ageism. *Educational Gerontology*, 34(10), 849–861. <https://doi.org/10.1080/03601270802042099>
- Chou, R., & Choi, N. (2011). Prevalence and correlates of perceived workplace discrimination among older workers in the United States of America. *Ageing and Society*, 31(6), 1051–1070. <https://doi.org/10.1017/S0144686X10001297>
- Collins, M. H., Hair, Jr., J. F., & Rocco, T. S. (2009). The older-worker-younger-supervisor dyad: A test of the Reverse Pygmalion effect. *Human Resource Development Quarterly*, 20(1), 21–41. <https://doi.org/10.1002/hrdq.20006>

- Conner, T. S., Tennen, H., Fleeson, W., & Barrett, L. F. (2009). Experience Sampling Methods : A Modern Idiographic Approach to Personality Research. *Social and Personality Psychology Compass*, 3(3), 292–313.
- Creswell, J. W. (2014). *Research design: Qualitative, Quantitative and Mixed Methods Approach*. (4th ed.). Sage publications.
- Cruikshank, M. (2009). *Learning to be old: Gender, culture, and aging* (2nd ed.). Rowman & Littlefield.
- Cutler, S., J. (2005). Ageism and technology. *Generations*, 3(6), 67–72.
- Dalal, D. K., & Carter, N. T. (2015). Negatively worded items negatively impact survey research. In C. E. Lance & J. Vandenberg, R. (Eds.), *More statistical and methodological myths and urban legends* (pp. 112–132). Routledge.
- Danna, K., & Griffin, R. W. (1999). Health and Well-Being in the Workplace: A Review and Synthesis of the Literature. *Journal of Management*, 25(3), 357–384. <https://doi.org/10.1177/014920639902500305>
- Davidovic, M., Djordjevic, Z., Erceg, P., Despotovic, N., & Milosevic, D. P. (2007). Ageism: Does it Exist Among Children? *The Scientific World JOURNAL*, 7, 1134–1139. <https://doi.org/10.1100/tsw.2007.171>
- de Lange, A. H., Taris, T. W., Jansen, P. G. W., Smulders, P., Houtman, I. L. D., & Kompier, M. a. J. (2006). Age as a factor in the relation between work and mental health: results from the longitudinal TAS survey. *Health Psychology: European Perspectives on Research, Education and Practice*, 1, 21–45.
- Diehl, M., Coyle, N., & Labouvie-Vief, G. (1996). Age and sex differences in strategies of coping and defense across the life span. *Psychology and Aging*, 11(1), 127–139. <https://doi.org/10.1037/0882-7974.11.1.127>
- DiStefano, C., Zhu, M., & Mîndrilă, D. (2009). Understanding and using factor scores: Considerations for the applied researcher. *Practical Assessment, Research and Evaluation*, 14(20), 1–11. <https://doi.org/https://doi.org/10.7275/da8t-4g52>
- Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *Academy of Management Journal*, 45, 331–351.

- Ellwart, T., Bündgens, S., & Rack, O. (2013). Managing knowledge exchange and identification in age diverse teams. *Journal of Managerial Psychology*, 28(7/8), 950–972. <https://doi.org/10.1108/JMP-06-2013-0181>
- Feinman, S., & Coon, R. H. (1983). The effect of status on the evaluation of behavior. *Research On Aging*, 5, 119–135.
- Fiksenbaum, L. M. (2014). Supportive work–family environments: implications for work–family conflict and well-being. *The International Journal of Human Resource Management*, 25(5), 653–672. <https://doi.org/10.1080/09585192.2013.796314>
- Finkelstein, L. M., King, E. B., & Voyles, E. C. (2015). Age Metastereotyping and Cross-Age Workplace Interactions: A Meta View of Age Stereotypes at Work. *Work, Aging and Retirement*, 1(1), 26–40. <https://doi.org/10.1093/workar/wau002>
- Finkelstein, L. M., Ryan, K. M., & King, E. B. (2012). What do the young (old) people think of me? Content and accuracy of age-based metastereotypes. *European Journal of Work and Organizational Psychology*, 22(6), 633–657. <https://doi.org/10.1080/1359432X.2012.673279>
- Finkelstein, L. M., Ryan, K. M., & King, E. B. (2013). What do the young (old) people think of me? Content and accuracy of age-based metastereotypes. *European Journal of Work and Organizational Psychology*, 22(6), 633–657. <https://doi.org/10.1080/1359432X.2012.673279>
- Finkelstein, L. M., Voyles, E. C., Thomas, C. L., & Zacher, H. (2020). A Daily Diary Study of Responses to Age Meta-stereotypes. *Work, Aging and Retirement*, 6(1), 28–45. <https://doi.org/10.1093/workar/waz005>
- Fisher, C. D., & To, M. L. (2012). Using experience sampling methodology in organizational behavior. *Journal of Organizational Behavior*, 33(7), 865–877. <https://doi.org/10.1002/job.1803>
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902. <https://doi.org/10.1037/0022-3514.82.6.878>

- Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. In P. Zanna, M. (Ed.), *Advances in experimental social psychology* (pp. 1–74). Academic.
- Flora, D. B. (2020). Your Coefficient Alpha Is Probably Wrong, but Which Coefficient Omega Is Right? A Tutorial on Using R to Obtain Better Reliability Estimates. *Advances in Methods and Practices in Psychological Science*, 3(4), 484–501. <https://doi.org/10.1177/2515245920951747>
- Ford, J. K., MacCallum, R. C., & Tait, M. (1986). The Application Of Exploratory Factor Analysis In Applied Psychology: A Critical Review And Analysis. *Personnel Psychology*, 39(2), 291–314. <https://doi.org/10.1111/j.1744-6570.1986.tb00583.x>
- Fowler, C., & Gasiorek, J. (2020). Implications of metastereotypes for attitudes toward intergenerational contact. *Group Processes & Intergroup Relations*, 23(1), 48–70. <https://doi.org/10.1177/1368430217744032>
- Fowler Jr, F. J., & Cosenza, C. (2009). Design and evaluation of survey questions. In L. Bickman & D. J. Rog (Eds.), *The SAGE handbook of applied social research methods* (2nd ed., pp. 375–412). SAGE Publications, Inc.
- Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification Theory: Toward Understanding Women’s Lived Experiences and Mental Health Risks. *Psychology of Women Quarterly*, 21(2), 173–206. <https://doi.org/10.1111/j.1471-6402.1997.tb00108.x>
- Fritz, C., Park, Y., & Shepherd, B. R. (2019). Workplace Incivility Ruins my Sleep and Yours: the Costs of Being in a Work-Linked Relationship. *Occupational Health Science*, 3(1), 1–21. <https://doi.org/10.1007/s41542-018-0030-8>
- Furr, R., M., & Bacharach, V., R. (2014). Empirical estimates of reliability. In M. Furr, R. & R. Bacharach, V. (Eds.), *Psychometrics: an introduction* (2nd ed., pp. 125–163). SAGE Publications, Inc.
- Garstka, T. A., Hummert, M. L., & Branscombe, N. R. (2005). Perceiving Age Discrimination in Response to Intergenerational Inequity. *Journal of Social Issues*, 61(2), 321–342. <https://doi.org/10.1111/j.1540-4560.2005.00408.x>

- Garstka, T. A., Schmitt, M. T., Branscombe, N. R., & Hummert, M. L. (2004). How Young and Older Adults Differ in Their Responses to Perceived Age Discrimination. *Psychology and Aging, 19*(2), 326–335. <https://doi.org/10.1037/0882-7974.19.2.326>
- Gee, G. C., Pavalko, E. K., & Long, J. S. (2007). Age, Cohort and Perceived Age Discrimination: Using the Life Course to Assess Self-reported Age Discrimination. *Social Forces, 86*(1), 265–290. <https://doi.org/10.1353/sof.2007.0098>
- Giles, H., & Reid, S. A. (2005). Ageism Across the Lifespan: Towards a Self-Categorization Model of Ageing. *Journal of Social Issues, 61*(2), 389–404. <https://doi.org/10.1111/j.1540-4560.2005.00412.x>
- Glover, I., & Branine, M. (1997). Ageism and the labour process: towards a research agenda. *Personnel Review, 26*(4), 274–292. <https://doi.org/10.1108/00483489710172079>
- Green, S. B., & Yang, Y. (2009). Commentary on Coefficient Alpha: A Cautionary Tale. *Psychometrika, 74*(1), 121–135. <https://doi.org/10.1007/s11336-008-9098-4>
- Gross, J. J., Carstensen, L. L., Pasupathi, M., Tsai, J., Götestam Skorpen, C., & Hsu, A. Y. C. (1997). Emotion and aging: Experience, expression, and control. *Psychology and Aging, 12*(4), 590–599. <https://doi.org/10.1037/0882-7974.12.4.590>
- Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work–family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology, 5*(1), 111–126. <https://doi.org/10.1037/1076-8998.5.1.111>
- Grzywacz, J., & Marks, N. (1999). Family Solidarity and Health Behaviors. *Journal of Family Issues, 20*(2), 243–268.
- Gullette, M. M. (1998). The politics of middle ageism. *New Political Science, 20*(3), 263–282. <https://doi.org/10.1080/07393149808429829>
- Hamilton, D., L. (1979). A cognitive-attributional analysis of stereotyping. *Advances in Experimental Social Psychology, 12*, 53–83.
- Harari, M. B., Reaves, A. C., & Viswesvaran, C. (2016). Creative and innovative performance: a meta-analysis of relationships with task, citizenship, and counterproductive job

- performance dimensions. *European Journal of Work and Organizational Psychology*, 25(4), 495–511. <https://doi.org/10.1080/1359432X.2015.1134491>
- Hayes, A. F., & Coutts, J. J. (2020). Use Omega Rather than Cronbach's Alpha for Estimating Reliability. But.... *Communication Methods and Measures*, 14(1), 1–24. <https://doi.org/10.1080/19312458.2020.1718629>
- Hoobler, J. M., & Brass, D. J. (2006). Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology*, 91(5), 1125–1133. <https://doi.org/10.1037/0021-9010.91.5.1125>
- Ilias, M., & Akter, R. (2017). Social History of Childhood and Children: A Note on the Cultural and Historical Differences in Child Care. *Journal of Humanities and Social Science*, 22(7), 54–57.
- Imel, S. (1996). Older Workers : Myths and Realities. In *ERIC Clearinghouse on Adult, Career and Vocational Education*.
- Inzlicht, M., Aronson, J., Good, C., & McKay, L. (2006). A particular resiliency to threatening environments. *Journal of Experimental Social Psychology*, 42(3), 323–336. <https://doi.org/10.1016/j.jesp.2005.05.005>
- Inzlicht, M., & Kang, S. K. (2010). Stereotype threat spillover: How coping with threats to social identity affects aggression, eating, decision making, and attention. *Journal of Personality and Social Psychology*, 99(3), 467–481. <https://doi.org/10.1037/a0018951>
- Inzlicht, M., & Schmeichel, B. J. (2012). What Is Ego Depletion? Toward a Mechanistic Revision of the Resource Model of Self-Control. *Perspectives on Psychological Science*, 7(5), 450–463. <https://doi.org/10.1177/1745691612454134>
- Inzlicht, M., Tullett, A. M., Legault, L., & Kang, S. K. (2011). Lingerin Effects: Stereotype Threat Hurts More than You Think. *Social Issues and Policy Review*, 5(1), 227–256. <https://doi.org/10.1111/j.1751-2409.2011.01031.x>
- Iversen, T. N., Larsen, L., & Solem, P. E. (2009). A conceptual analysis of Ageism. *Nordic Psychology*, 61(3), 4–22. <https://doi.org/10.1027/1901-2276.61.3.4>

- Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, *44*(4), 741–763. <https://doi.org/10.2307/2667054>
- Jones, K., Arena, D., Nittrouer, C., Alonso, N., & Lindsey, A. (2017). Subtle Discrimination in the Workplace: A Vicious Cycle. *Industrial and Organizational Psychology*, *10*(01), 51–76. <https://doi.org/https://doi.org/10.1017/iop.2016.91>
- Jussim, L., & Eccles, J. (1994). Social Development Naturally occurring interpersonal expectancies. In N. Eisenberg (Ed.), *Social Development* (pp. 74–108). SAGE Publications.
- Kalokerinos, E. (2020). An introduction to Experience sampling methods. In *GRiPS x Ethics and Well-being Hub Workshop*. <https://www.scribbr.com/methodology/sampling-methods/>
- Kalokerinos, E. K., von Hippel, C., & Zacher, H. (2014). Is Stereotype Threat a Useful Construct for Organizational Psychology Research and Practice? *Industrial and Organizational Psychology*, *7*(3), 381–402. <https://doi.org/10.1111/iops.12167>
- Kalwij, A., Kapteyn, A., & de Vos, K. (2010). Retirement of Older Workers and Employment of the Young. *Economist*, *158*(4), 341–359. <https://doi.org/10.1007/s10645-010-9148-z>
- Kang, S. K., & Inzlicht, M. (2014). Stereotype Threat Spillover: Why Stereotype Threat Is More Useful for Organizations Than It Seems. *Industrial and Organizational Psychology*, *7*(3), 452–456. <https://doi.org/10.1111/iops.12179>
- Kenyon, G. M. (1992). Why is ageism a serious social problem and what can be done about it? *Canadian Journal on Aging*, *11*, 2–5.
- Khallash, S., & Kruse, M. (2012). The future of work and work-life balance 2025. *Futures*, *44*(7), 678–686. <https://doi.org/10.1016/j.futures.2012.04.007>
- Kim, Y. Y., & Bhawuk, D. P. S. (2008). Globalization and diversity: Contributions from intercultural research. *International Journal of Intercultural Relations*, *32*(4), 301–304. <https://doi.org/10.1016/j.ijintrel.2008.06.001>
- King, E., Finkelstein, L., Thomas, C., & Corrington, A. (2019). *Generational differences at work are small. Thinking they're big affects our behavior*. Harvard Business Review.

<https://hbr.org/2019/08/generationaldifferencece-orkre-mall-hinking-heyreigffectsurehavior>

- Kite, M. E., Stockdale, G. D., Whitley, B. E., & Johnson, B. T. (2005). Attitudes Toward Younger and Older Adults: An Updated Meta-Analytic Review. *Journal of Social Issues*, *61*(2), 241–266. <https://doi.org/10.1111/j.1540-4560.2005.00404.x>
- Kleiman, E. (2017). *Understanding and analyzing multilevel data from real-time monitoring studies: An easily-accessible tutorial using R*.
- Kleine, A. K., Rudolph, C. W., & Zacher, H. (2019). Thriving at work: A meta-analysis. *Journal of Organizational Behavior*, *40*(9–10), 973–999. <https://doi.org/10.1002/job.2375>
- Kline, R. B. (2018). Response to Leslie Hayduk’s Review of Principles and Practice of Structural Equation Modeling, 4th Edition. *Canadian Studies in Population*, *45*(3–4), 188. <https://doi.org/10.25336/csp29418>
- Koch, T., & Webb, C. (1996). The biomedical construction of ageing : implications for nursing care of older people. *Journal of Advanced Nursing*, *23*, 952–959.
- Kohli, M. (1988). Ageing as a challenge for sociological theory. *Ageing and Society*, *8*(4), 367–394. <https://doi.org/10.1017/S0144686X00007169>
- Koval, P., Hinton, J., Dozo, N., Gleeson, J., Alvarez, M., Harrison, A., Vu, D., Susanto, R., Jayaputera, G., & Sinnott, R. (2019). *SEMA3: Smartphone Ecological Momentary Assessment* (No. 3).
- Kulik, C. T. (2014). Spotlight on the Context: How a Stereotype Threat Framework Might Help Organizations to Attract and Retain Older Workers. *Industrial and Organizational Psychology*, *7*(3), 456–461. <https://doi.org/10.1111/iops.12180>
- Labini, F. S., & Zapperi, S. (2007). *Reverse age discrimination*. *3*, 2–4.
- Lambert, J., & Bell, M. (2013). Conceptualization of Diversity. In *The Oxford Handbook of Diversity and Work* (pp. 13–52). Oxford Library of Psychology.
- Lambert, S. (1990). Processes Linking Work and Family: A Critical Review and Research Agenda. *Human Relations*, *9*(2), 183–205.

- Lamont, R. A., Swift, H. J., & Abrams, D. (2015). A review and meta-analysis of age-based stereotype threat: Negative stereotypes, not facts, do the damage. *Psychology and Aging*, *30*(1), 180–193. <https://doi.org/10.1037/a0038586>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- LePine, J. A., LePine, M. A., & Jackson, C. L. (2004). Challenge and Hindrance Stress: Relationships With Exhaustion, Motivation to Learn, and Learning Performance. *Journal of Applied Psychology*, *89*(5), 883–891. <https://doi.org/10.1037/0021-9010.89.5.883>
- Lepine, J. A., Podsakoff, N. P., & Lepine, M. A. (2005). A Meta-Analytic Test of the Challenge Stressor–Hindrance Stressor Framework: An Explanation for Inconsistent Relationships Among Stressors and Performance. *Academy of Management Journal*, *48*(5), 764–775. <https://doi.org/10.5465/amj.2005.18803921>
- Lester, S. W., Standifer, R. L., Schultz, N. J., & Windsor, J. M. (2012). Actual Versus Perceived Generational Differences at Work : An Empirical Examination. *Journal of Leadership & Organizational Studies* *19*(3), *19*(3), 341–354. <https://doi.org/10.1177/1548051812442747>
- Levy, S. R., & Macdonald, J. L. (2016). Progress on Understanding Ageism. *Journal of Social Issues*, *72*(1), 5–25. <https://doi.org/10.1111/josi.12153>
- Liljequist, D., Elfving, B., & Skavberg Roaldsen, K. (2019). Intraclass correlation – A discussion and demonstration of basic features. *PLOS ONE*, *14*(7), e0219854. <https://doi.org/10.1371/journal.pone.0219854>
- Lim, S., Ilies, R., Koopman, J., Christoforou, P., & Arvey, R. D. (2018). Emotional Mechanisms Linking Incivility at Work to Aggression and Withdrawal at Home: An Experience-Sampling Study. *Journal of Management*, *44*(7), 2888–2908. <https://doi.org/10.1177/0149206316654544>
- Lim, S., & Lee, A. (2011). Work and Nonwork Outcomes of Workplace Incivility: Does Family Support Help? *Journal of Occupational Health Psychology*, *16*(1), 95–111. <https://doi.org/10.1037/a0021726>

- Logan, J., Ward, R., & Spitze, G. (2016). As Old as You Feel : Age Identity in Middle and Later Life. *Social Forces*, *71*(2), 451–467.
- Major, B., Quinton, W., & McCoy, S. (2002). Antecedents and Consequences of Attributions to Discrimination: Theoretical and Empirical Advances. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 251-). Elsevier Science. <https://doi.org/10.1080/1047840X.2019.1646053>
- Mann, K. (2007). Activation, Retirement Planning and Restraining the ‘Third Age.’ *Social Policy and Society*, *6*(3), 279–292. <https://doi.org/10.1017/S1474746407003624>
- Mannheim, K. (1952). The Problem of Generations. In P. Kecskemeti (Ed.), *Essays on the Sociology of Knowledge* (pp. 276–320). Routledge and Kegan Paul.
- Marchiondo, L. A., Fisher, G. G., Cortina, L. M., & Matthews, R. A. (2020). Disrespect at Work, Distress at Home: A Longitudinal Investigation of Incivility Spillover and Crossover Among Older Workers. *Work, Aging and Retirement*, *6*(3), 153–164. <https://doi.org/10.1093/workar/waaa007>
- Marchiondo, L. A., Gonzales, E., & Ran, S. (2016). Development and Validation of the Workplace Age Discrimination Scale. *Journal of Business and Psychology*, *31*(4), 493–513. <https://doi.org/10.1007/s10869-015-9425-6>
- Marcus-Newhall, A., Pedersen, W. C., Carlson, M., & Miller, N. (2000). Displaced aggression is alive and well: A meta-analytic review. *Journal of Personality and Social Psychology*, *78*(4), 670–689. <https://doi.org/10.1037/0022-3514.78.4.670>
- Mariano, J., Marques, S., Ramos, M. R., Gerardo, F., & de Vries, H. (2020). Too Old for Computers? The Longitudinal Relationship Between Stereotype Threat and Computer Use by Older Adults. *Frontiers in Psychology*, *11*. <https://doi.org/10.3389/fpsyg.2020.568972>
- Martin, A. E., & North, M. S. (2022). Equality for (almost) all: Egalitarian advocacy predicts lower endorsement of sexism and racism, but not ageism. *Journal of Personality and Social Psychology*, *123*(2), 373–399. <https://doi.org/10.1037/pspi0000262>
- Martins, L. L., & Milliken, F. J. (1996). Searching for Common Threads : Understanding the Multiple Effects of Diversity in Organizational Groups. *Academy of Management Review*, *21*(2), 402–433.

- Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*(3), 498–512. <https://doi.org/10.1037/0021-9010.93.3.498>
- Matthews, R. A., & Ritter, K.-J. (2019). Applying adaptation theory to understand experienced incivility processes: Testing the repeated exposure hypothesis. *Journal of Occupational Health Psychology, 24*(2), 270–285. <https://doi.org/10.1037/ocp0000123>
- Maule, A., Cliff, D., & Taylor, R. (1996). Early retirement decisions and how they affect later quality of life. *Ageing and Society, 16*, 177–204.
- McCrae, R. (2000). Trait Psychology and the Revival of Personality and Culture Studies. *American Behavioral Scientist, 44*(1), 10–31.
- McDonald, R. P. (2013). *Test Theory*. Psychology Press. <https://doi.org/10.4324/9781410601087>
- Menkin, J. A., Robles, T. F., Gruenewald, T. L., Tanner, E. K., & Seeman, T. E. (2016). Positive Expectations Regarding Aging Linked to More New Friends in Later Life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 72*(5), gbv118. <https://doi.org/10.1093/geronb/gbv118>
- Miguel Carmo, R., Cantante, F., & de Almeida Alves, N. (2014). Time projections: Youth and precarious employment. *Time & Society, 23*(3), 337–357. <https://doi.org/10.1177/0961463X14549505>
- Mikilon, S., Kreiner, G., E., & Wieseke, J. (2016). Seeing You Seeing Me : Stereotypes and the Stigma Magnification Effect. *Journal of Applied Gerontology, 101*(5), 639.
- Minichiello, V., Browne, J., & Kendig, H. (2000). Perceptions and consequences of ageism: views of older people. *Ageing and Society, 20*(3), 253–278. <https://doi.org/10.1017/S0144686X99007710>
- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin, 126*(2), 247–259. <https://doi.org/10.1037/0033-2909.126.2.247>
- Muraven, M., Tice, D. M., & Baumeister, R. F. (1998). Self-control as a limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology, 74*(3), 774–789. <https://doi.org/10.1037/0022-3514.74.3.774>

- Myers, V. (2015). *Diversity is Being Invited to the Party: Inclusion is Being Asked to Dance*.
<https://www.youtube.com/watch?v=9gS2VPUkB3M>
- Naegele, L., Tavernier, W. D., & Hess, M. (2017). Work environment and the origin of ageism. In L. Ayalon & C. Tesch-Römer (Eds.), *Contemporary perspectives on ageism* (Vol. 19, pp. 73–90). Springer, Cham. <https://doi.org/10.1093/geroni/igx004.044>
- Nelson, T., D. (2000). *Ageism: Stereotyping and Prejudice Against Older Persons*. MIT Press.
- Nelson, T. D. (2005). Ageism: Prejudice Against Our Feared Future Self. *Journal of Social Issues*, 61(2), 207–221. <https://doi.org/10.1111/j.1540-4560.2005.00402.x>
- Neugarten, B. L. (1974). Age Groups in American Society and the Rise of the Young-Old. *The ANNALS of the American Academy of Political and Social Science*, 415(1), 187–198. <https://doi.org/10.1177/000271627441500114>
- Nicholson, T., & Griffin, B. (2015). Here today but not gone tomorrow: Incivility affects after-work and next-day recovery. *Journal of Occupational Health Psychology*, 20(2), 218–225. <https://doi.org/10.1037/a0038376>
- North, M. S., & Fiske, S. T. (2015). Intergenerational resource tensions in the workplace and beyond: Individual, interpersonal, institutional, international. *Research in Organizational Behavior*, 35, 159–179. <https://doi.org/10.1016/j.riob.2015.10.003>
- Nunnally, B. H., & Bernstein, J. C. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Oliveira, E. (2021a). Every coin has two sides : the case of thriving at work. *Journal of Management and Organization*, 1–26. <https://doi.org/10.1017/jmo.2021.55>
- Oliveira, E. (2021b). Age-inclusive HR practices and the thriving of older workers: the mediating role of occupational future time perspective. *Career Development International*, 26(3), 348–362. <https://doi.org/10.1108/CDI-01-2021-0026>
- Oliveira, E. A. da S., & Cabral-Cardoso, C. J. (2018). Buffers or Boosters? The Role of HRM Practices in Older Workers' Experience of Stereotype Threat. *The Journal of Psychology*, 152(1), 36–59. <https://doi.org/10.1080/00223980.2017.1405903>

- Østergaard, C. R., Timmermans, B., & Kristinsson, K. (2011). Does a different view create something new? The effect of employee diversity on innovation. *Research Policy*, *40*(3), 500–509. <https://doi.org/10.1016/j.respol.2010.11.004>
- Palmore, E., B. (1982). Attitudes toward the aged: What we know and need to know. *Research on Aging*, *4*(3), 333–348.
- Paluck, E. L., Green, S. A., & Green, D. P. (2019). The contact hypothesis re-evaluated. *Behavioural Public Policy*, *3*(02), 129–158. <https://doi.org/10.1017/bpp.2018.25>
- Papavasileiou, E. (2017). Age-Based Generations at Work: A Culture-Specific Approach. In E. Parry & J. McCarthy (Eds.), *The Palgrave handbook of age diversity and work* (pp. 521–538). Palgrave Macmillan UK. <https://doi.org/10.1057/978-1-137-46781-2>
- Pauwels, L., Chalavi, S., & Swinnen, S. P. (2018). Aging and brain plasticity. *Aging*, *10*(8), 1789–1790. <https://doi.org/10.18632/aging.101514>
- Phillipson, C. (2013). Commentary: The future of work and retirement. *Human Relations*, *66*(1), 143–153. <https://doi.org/10.1177/0018726712465453>
- Porath, C., Spreitzer, G., Gibson, C., & Garnett, F. G. (2012). Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behavior*, *33*(2), 250–275. <https://doi.org/10.1002/job.756>
- Posthuma, R. A., & Campion, M. A. (2009). Age Stereotypes in the Workplace: Common Stereotypes, Moderators, and Future Research Directions†. *Journal of Management*, *35*(1), 158–188. <https://doi.org/10.1177/0149206308318617>
- Posthuma, R. A., & Guerrero, L. (2013). Age stereotypes in the workplace: Multidimensionality, cross-cultural applications, and directions for future research. In J. Field, J. Burke, R., & L. Cooper, C. (Eds.), *The SAGE handbook of aging, work and society* (pp. 250–265). Sage.
- Powell, M. (2010). Ageism and Abuse in the Workplace: A New Frontier. *Journal of Gerontological Social Work*, *53*(7), 654–658. <https://doi.org/10.1080/01634372.2010.508510>
- Prem, R., Ohly, S., Kubicek, B., & Korunka, C. (2017). Thriving on challenge stressors? Exploring time pressure and learning demands as antecedents of thriving at work. *Journal of Organizational Behavior*, *38*(1), 108–123. <https://doi.org/10.1002/job.2115>

- Quick, J. C., Quick, J. D., Nelson, D. L., & Hurrell Jr, J. J. (1997). Preventive stress management in organizations. In J. C. Quick, J. D. Quick, D. L. Nelson, & J. J. Hurrell (Eds.), *Preventive stress management in organizations* (pp. 1–19). American Psychological Association.
- Rabl, T. (2010). Age, discrimination, and achievement motives. *Personnel Review*, *39*(4), 448–467. <https://doi.org/10.1108/00483481011045416>
- Ramos, S., & Sousa, I. (2017). Intergenerational diversity at work : Are they too similar to be different ? *Revista de Gestão & Ideias*, *3*, 31–40.
- Raymer, M., Reed, M., & Spiegel, M. (2017). An Examination of Generational Stereotypes as a. *The Psychologist-Manager Journal*, *20*(3), 148–175. <https://doi.org/10.1037/mgr0000057>
- Redman, T., & Snape, E. (2006). The Consequences of Perceived Age Discrimination Amongst Older Police Officers: Is Social Support a Buffer? *British Journal of Management*, *17*(2), 167–175. <https://doi.org/10.1111/j.1467-8551.2006.00492.x>
- Reio, T., & Sanders-Reio, J. (1999). Combating Workplace Ageism. *Learning across Cultures*, 10–13. <https://doi.org/10.4324/9780367198459-REPRW185-1>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, *87*(4), 698–714. <https://doi.org/10.1037/0021-9010.87.4.698>
- Roberson, Q. (2013). *The Oxford Handbook of Diversity and Work*. Oxford Library of Psychology.
- Roberts, R. K., Swanson, N. G., & Murphy, L. R. (2004). Discrimination and occupational mental health. *Journal of Mental Health*, *13*(2), 129–142. <https://doi.org/10.1080/09638230410001669264>
- Roscigno, V. J. (2010). Ageism in the American Workplace. *Contexts*, *9*(1), 16–21. <https://doi.org/10.1525/ctx.2010.9.1.16>
- Rose, B. (2010). *If 65 is the New 50, How Will Baby Boomers Remake Retirement?* ABAJOURNAL.

http://www.abajournal.com/news/article/if_65_is_the_new_50_how_will_baby_boomers_remake_retirement/

- Rupp, D. E., Vodanovich, S. J., & Crede, M. (2006). Age Bias in the Workplace: The Impact of Ageism and Causal Attributions. *Journal of Applied Social Psychology, 36*(6), 1337–1364. <https://doi.org/10.1111/j.0021-9029.2006.00062.x>
- Sabik, N. J. (2015). Ageism and Body Esteem: Associations With Psychological Well-Being Among Late Middle-Aged African American and European American Women. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 70*(2), 189–199. <https://doi.org/10.1093/geronb/gbt080>
- Salthouse, T. A., & Maurer, T. I. (1996). Aging, job performance, and career development. In *Handbook of the Psychology of Aging* (pp. 353–364).
- Scheibe, S., & Moghimi, D. (2021). Age and Context Effects in Daily Emotion Regulation and Well-Being at Work. *Work, Aging and Retirement, 7*(1), 31–45. <https://doi.org/10.1093/workar/waz014>
- Scollon, C., Kim-Prieto, C., & Diener, E. (2003). Experience Sampling: Promises and Pitfalls, Strengths and Weaknesses. *Journal of Happiness Studies, 4*(1), 5–34.
- Segers, J., Inceoglu, I., & Finkelstein, L. (2014). The age cube of work. In E. Parry (Ed.), *Generational diversity at work: New research perspectives*. (pp. 11–36). Routledge.
- Settersten, R. A., & Mayer, K. U. (1997). The measurement of age, age structuring, and the life course. *Annual Review of Sociology, 23*, 233–261. <https://doi.org/10.1146/annurev.soc.23.1.233>
- Shamim, S., Cang, S., Yu, H., & Li, Y. (2016). Management approaches for Industry 4.0: A human resource management perspective. *2016 IEEE Congress on Evolutionary Computation (CEC)*, 5309–5316. <https://doi.org/10.1109/CEC.2016.7748365>
- Shweder, R. A. (1973). The between and within of Cross-Cultural Research. *Ethos, 1*(4), 531–545. <https://doi.org/10.1525/eth.1973.1.4.02a00150>
- Simões, L., & Gouveia, L. B. (2008). Geração Net , Web 2 . 0 e Ensino Superior. In Universidade Fernando Pessoa (Ed.), *Novos Média, Novas Gerações, Novas Formas de Comunicar* (Issue 6, pp. 21–32).

- Snape, E., & Redman, T. (2003). Too old or too young? The impact of perceived age discrimination. *Human Resource Management Journal*, *13*(1), 78–89. <https://doi.org/10.1111/j.1748-8583.2003.tb00085.x>
- Spreitzer, G., Sutcliffe, K., Dutton, J., & Sonenshein, S., Grant, A. M. (2005). A socially embedded model of thriving at work. *Organization Science*, *16*(5), 537–549.
- Stangor, C., & Lange, J. (1994). Mental representations of social groups: Advances in understanding stereotypes and stereotyping. In P. Zanna, M. (Ed.), *Advances in experimental social psychology* (pp. 357–416). Academic Press.
- Sterns, H. L., & Doverspike, D. (1989). Aging and the training and learning process. In I. Goldstein (Ed.), *Training and development in organizations* (pp. 299–332). Jossey Boss.
- Sturman, M. (2003). Searching for the Inverted U-Shaped Relationship Between Time and Performance: Meta-Analyses of the Experience/Performance, Tenure/Performance, and Age/Performance Relationships. *Journal of Management*, *29*(5), 609–640. [https://doi.org/10.1016/S0149-2063\(03\)00028-X](https://doi.org/10.1016/S0149-2063(03)00028-X)
- Swift, H. J., Abrams, D., & Marques, S. (2013). Threat or Boost? Social Comparison Affects Older People’s Performance Differently Depending on Task Domain. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *68*(1), 23–30. <https://doi.org/10.1093/geronb/gbs044>
- Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations*. Nelson-Hall.
- Tajfel, H., & Turner, J., C. (1986). The social identity theory of inter-group behavior. In S. Worchel & W. Austin, L. (Eds.), *Psychology of intergroup relations*. Nelson-Hall.
- Taneva, S. K., Arnold, J., & Nicolson, R. (2016). The Experience of Being an Older Worker in an Organization: A Qualitative Analysis. *Work, Aging and Retirement*, *2*(4), 396–414. <https://doi.org/10.1093/workar/waw011>
- Tetlock, P. E. (1985). Accountability A Social Check on the Fundamental Attribution Error. *Social Psychology Quarterly*, *48*(3), 227–236.

- Trull, T. J., & Ebner-Priemer, U. (2014). The Role of Ambulatory Assessment in Psychological Science. *Current Directions in Psychological Science*, 23(6), 466–470. <https://doi.org/10.1177/0963721414550706>
- Trull, T. J., & Ebner-Priemer, U. W. (2009). Using experience sampling methods/ecological momentary assessment (ESM/EMA) in clinical assessment and clinical research: Introduction to the special section. *Psychological Assessment*, 21(4), 457–462. <https://doi.org/10.1037/a0017653>
- Truxillo, D. M., Cadiz, D. M., & Hammer, L. B. (2015). Supporting the Aging Workforce: A Review and Recommendations for Workplace Intervention Research. In *Annual Review of Organizational Psychology and Organizational Behavior* (Vol. 2). <https://doi.org/10.1146/annurev-orgpsych-032414-111435>
- Tse, C., Kang, S. K., Chasteen, A. L., & Remedios, J. D. (2010). *Current perspectives on ageism, racism, and sex-ism: Attitudes about discrimination and those who claim to have experienced it*. 11th Society for Personality and Social Psychology Conference.
- Urick, M. J. (2017). Towards an Identity-Based Approach for Examining Age in the Workplace: Perspectives and Implications. In *The Palgrave Handbook of Age Diversity and Work* (pp. 47–65). Palgrave Macmillan UK. https://doi.org/10.1057/978-1-137-46781-2_3
- Vauclair, C.-M., Lima, L., & Marques, S. (2014). The EURAGE Group: Examining ageing and ageism in context through the European Social Survey. *Revista Transcultural*, 6(1), 55–67.
- Vauclair, C.-M., Lima, M. L., Abrams, D., Swift, H. J., & Bratt, C. (2016). What do older people think that others think of them, and does it matter? The role of meta-perceptions and social norms in the prediction of perceived age discrimination. *Psychology and Aging*, 31(7), 699–710. <https://doi.org/10.1037/pag0000125>
- Vehovar, V., Toepoel, V., & Steinmetz, S. (2016). Non-probability Sampling. In C. Wolf, D. Joye, T. Smith, & Y. Fu (Eds.), *The SAGE Handbook of Survey Methodology* (pp. 311–328). SAGE Publications. <https://doi.org/10.4135/9781473957893.n21>

- Vendramin, P., & Valenduc, G. (2014). A Gender Perspective on Older Workers' Employment and Working Conditions. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2512679>
- Viswesvaran, C., Schmidt, F. L., & Ones, D. S. (2002). The moderating influence of job performance dimensions on convergence of supervisory and peer ratings of job performance: Unconfounding construct-level convergence and rating difficulty. *Journal of Applied Psychology*, 87(2), 345–354. <https://doi.org/10.1037/0021-9010.87.2.345>
- Vorauer, J. D., Hunter, A. J., Main, K. J., & Roy, S. A. (2000). Meta-Stereotype Activation : Evidence From Indirect Measures for Specific Evaluative Concerns Experienced by Members of Dominant Groups in Intergroup Interaction. *Journal of Personality and Social Psychology*, 78(4), 690–707. <https://doi.org/10.1037//0022-3514.78.4.690>
- Vorauer, J. D., Main, K. J., & O'Connell, G. B. (1998). How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. *Journal of Personality and Social Psychology*, 75(4), 917–937. <https://doi.org/10.1037/0022-3514.75.4.917>
- Voss, P., Wolff, J. K., & Rothermund, K. (2017). Relations between views on ageing and perceived age discrimination: a domain-specific perspective. *European Journal of Ageing*, 14(1), 5–15. <https://doi.org/10.1007/s10433-016-0381-4>
- Voyles, E. C. (2017). Reactions to Age Metastereotypes in the Workplace: Challenge, Threat, and Boost. In *ProQuest Dissertations and Theses*.
- Voyles, E., Finkelstein, L., & King, E. (2014). A Tale of Two Theories: Stereotype Threat and Metastereotypes. *Industrial and Organizational Psychology*, 7(3), 419–422. <https://doi.org/10.1111/iops.12171>
- Wilkening, R. (2002). The age 60 rule: Age discrimination in commercial aviation. *Aviation, Space, and Environmental Medicine*, 73(3), 194–202.
- Wood, S. J., & Michaelides, G. (2016). Challenge and hindrance stressors and wellbeing-based work–nonwork interference: A diary study of portfolio workers. *Human Relations*, 69(1), 111–138. <https://doi.org/10.1177/0018726715580866>

- Wu, J.-Y., Lin, J. J. H., Nian, M.-W., & Hsiao, Y.-C. (2017). A Solution to Modeling Multilevel Confirmatory Factor Analysis with Data Obtained from Complex Survey Sampling to Avoid Conflated Parameter Estimates. *Frontiers in Psychology, 8*(SEP). <https://doi.org/10.3389/fpsyg.2017.01464>
- Xia, Y., & Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods. *Behavior Research Methods, 51*(1), 409–428. <https://doi.org/10.3758/s13428-018-1055-2>
- Youmans, E. G. (1971). Generational perceptions of life cycle stages in an urban/rural area. *Gerontologist, 1*, 284–288.
- Zedeck, S., & Mosier, K. L. (1990). Work in the family and employing organization. *American Psychologist, 45*(2), 240–251. <https://doi.org/10.1037/0003-066X.45.2.240>

Annexes

Annex A

Table A.1 – Sample Job Functions

▲	Var1	▼	Freq	▼
1	IT		1	
2	Art and Culture		1	
3	Education		9	
4	HR		1	
5	National Defense		3	
6	Retail		1	
7	Engineering		3	
8	Maintenance		3	
9	Leadership		5	
10	Public Administration		1	
11	Health		1	
12	Internship		5	
13	Finance		1	
14	Unidentified		4	
15	Justice		1	
16	Customer Service		3	
17	Food Industry		0	

Annex B

Instruções de Participação no Estudo 'Perceção da idade no contexto de trabalho'

Olá caro participante,
Espero encontrá-lo bem.

O meu nome é Sara Oliveira, sou aluna finalista do Mestrado em Psicologia Social e das Organizações do ISCTE-IUL.

Se está a receber este e-mail foi porque, previamente, se mostrou disponível em participar no estudo "Perceção da idade no contexto de trabalho" no âmbito da minha dissertação de mestrado. Quero agradecer-lhe desde já, pela sua disponibilidade em participar. A sua contribuição será mesmo muito importante!

Para lhe dar a conhecer as instruções deste estudo, segue [aqui](#) um vídeo, o qual peço que assista com muita atenção. Devido à dimensão do mesmo, não conseguirá assisti-lo de imediato, terá de fazer transferência e abrir o vídeo descarregado. Caso não consiga visualizar o mesmo, informe-me!

Saiba que, se mesmo após visualizar o vídeo ainda tiver dúvidas, me pode contactar! É mesmo muito importante para mim que se sinta à vontade para isso 😊

Os meus **contactos** são

E-mail: sraoa@iscte-iul.pt

Número de telemóvel: 951 939 144 144

Com os melhores cumprimentos,
Sara Oliveira

[← Responder](#) [→ Reencaminhar](#)

Figure B.1 – Briefing (E-mail)

Annex C

iscte CIÊNCIAS SOCIAIS
E HUMANAS

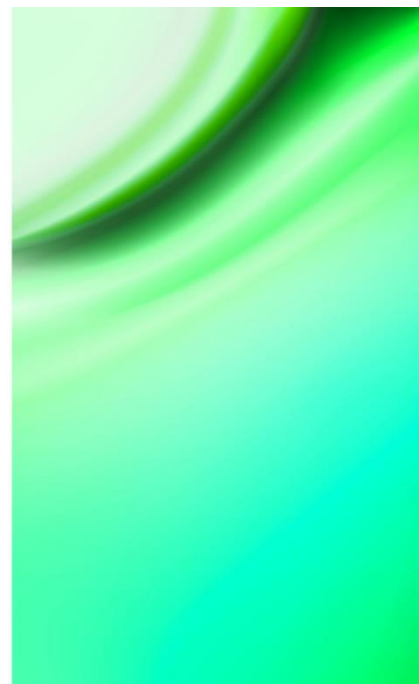
Instruções para o Estudo: “Perceção da idade no contexto de trabalho”

**Dissertação de Mestrado em Psicologia Social e das
Organizações**

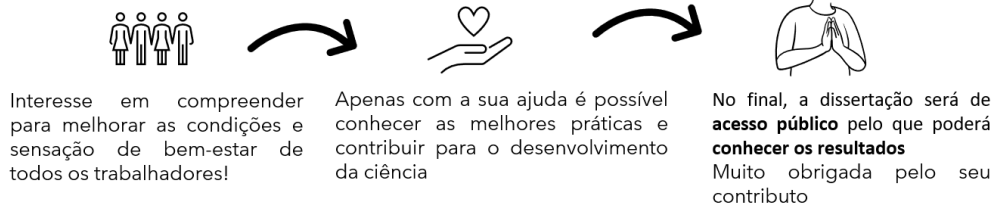
Aluna Sara Oliveira

Orientadora Miriam Rosa

Coorientador Eduardo Oliveira



Apresentação



Questões Éticas

- O estudo foi submetido à **Comissão de Ética**
- **Os seus dados estão protegidos** de acordo com o Regulamento Geral sobre a Proteção de Dados (**RGPD**) vigente em Portugal
- Os seus **dados** serão **anónimos**, como tal, não será possível identificá-lo
- A sua **participação** é **voluntária**, pelo que, poderá desistir a qualquer momento do estudo
- Da participação neste estudo **não se advêm riscos**

Enquadramento



DECORRERÁ DURANTE **7 DIAS DE TRABALHO***



EXISTEM 3 **QUESTIONÁRIOS ON-LINE** QUE TERÁ DE RESPONDER ATRAVÉS DE UMA **APLICAÇÃO DE TELEMÓVEL**



A **APLICAÇÃO** ENVIARÁ **LEMBRETES** COMO SUPORTE DE MEMÓRIA

Quando termina o estudo?

- O estudo decorrerá durante **7 dias de trabalho**
- **Iniciará** no mesmo dia para todos (**19 de Maio**)
- O dia de término dependerá do seu horário de trabalho. Por exemplo, imagine que trabalha no fim-de-semana, então responderá sábado e domingo. Se não trabalhar no fim-de-semana, esses dias faz uma pausa voltando a responder 2ª feira
- **O que importa é que responda um total de 7 dias de trabalho** (exclui-se dias de folga/fim-de-semana)

Questionários

- ❖ **Questionário 1**, com duração média de 10 minutos, **só irá responder uma única vez**, que será no 1º dia do estudo
- ❖ **Questionário 2**, com duração média de 3 minutos, **responderá todos os dias** até ao último dia do estudo (7º dia) **até 1 hora após ter saído do trabalho**
- ❖ **Questionário 3**, com duração média de 1 minuto, **responderá todos os dias** até ao último dia do estudo (7º dia) **no mínimo 1 hora após ter chegado a casa**

Indicações | Dia 0 18 de Maio

1. Instalar a aplicação SEMA3 e familiarizar-se com o estudo
2. Contactar-me caso surjam dúvidas, inquietações ou dificuldades a instalar a aplicação (e durante todo o processo, obviamente) ☐

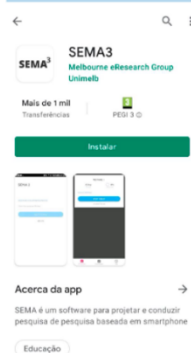


Passo 1: Instalar a aplicação SEMA3

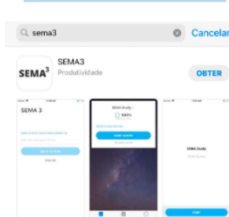
Lembre-se, **mesmo que tenha dificuldades** a instalar a aplicação, não desista! **Não hesite em contactar.** Estarei disponível para ajudá-lo! 😊

Para instalar a aplicação SEMA 3 recorra à sua Play store ou App Store

Para smartphones Android



Para smartphones iOS



iscte CIÊNCIAS SOCIAIS
E HUMANAS

Indicações | Dia 1 19 de Maio

1. Ver o e-mail enviado pelo SEMA3 com o 'Participant ID'
2. Com esse mesmo código aceder à aplicação
3. Responder ao Q1 durante o dia (por exemplo, "roubar" 10 minutos à hora de almoço) ☐
4. Até 1H após sair do trabalho, responder ao Q2
5. No mínimo, 1H após ter chegado a casa responder ao Q3



Passo 2: Entrar no SEMA3

Irá receber um e-mail deste género (imagem à esquerda), o '**Participant ID**' sublinhado a azul é o número que deve colocar na aplicação SEMA3 para conseguir aceder aos questionários (imagem à direita)

Atenção: Não se esqueça de ativar as notificações, pois irá receber lembretes que servem como suporte de memória! ☐

[Thesis] - You have been invited to participate in a study on the SEMA platform.

Hi there,

You have been invited to participate in 'Thesis' on the SEMA platform.

Download SEMA

Once you have joined the study you will be able to sign into the iOS & Android apps using Participant ID: 471272777.

Have fun!

SEMA 3

Powered by HTMLemail.

Após a instalação da aplicação, onde diz "Enter Your Participant ID Here" escreva o seu número único e confidencial enviado por e-mail.

Nota: Permita que a aplicação envie notificações.

Exemplo:

SEMA 3

SIGN IN WITH YOUR PARTICIPANT ID

Enter your participant ID here

Sign In To SEMA

1.2.5 (4)

SEMA 3

SIGN IN WITH YOUR PARTICIPANT ID

28281858

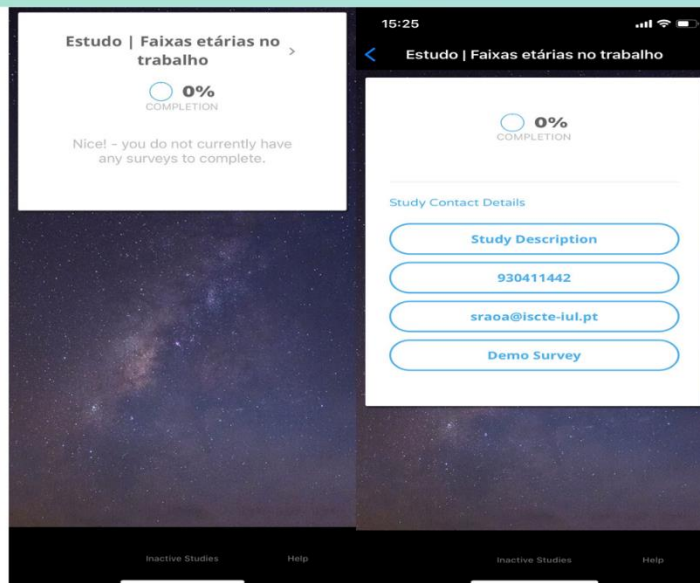
Sign In To SEMA

1.2.5 (4)

Passo 3: Aceder aos questionários

Ao entrar no SEMA3 encontrará o seguinte cenário (imagem à esquerda). Ao clicar em cima do retângulo branco, surgirá os detalhes do estudo (imagem à direita).

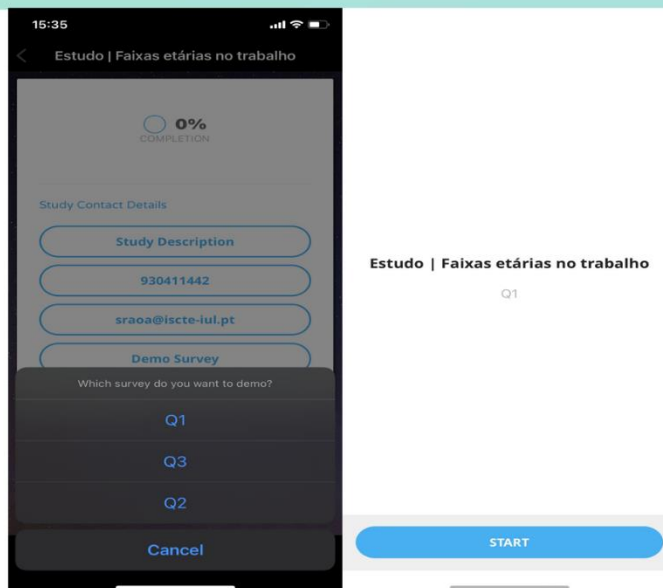
No Study Description tem uma breve descrição do estudo. E abaixo, os contactos para os quais pode (e deve ☐) contactar caso surjam dúvidas de qualquer tipo.



Passo 4: Iniciar o Q1

Clique em Demo Survey, e logo de seguida clique em Q1 para responder ao questionário único (imagem à esquerda), de seguida clique em Start para começar o Q1 (imagem à direita)

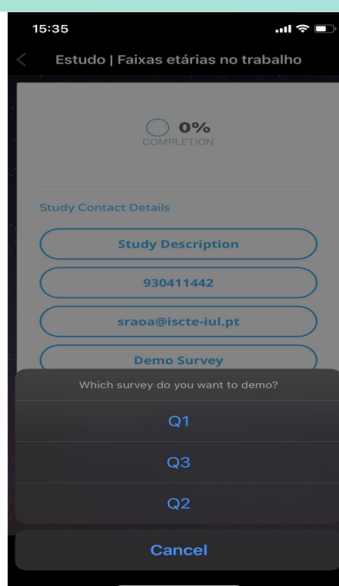
Mais uma vez, saiba que pode contactar-me a qualquer momento do estudo!



Passo 5: Responder ao Q2

Até 1 hora depois de ter saído do trabalho, faça o mesmo processo que anteriormente mas desta vez clique em **Q2**.

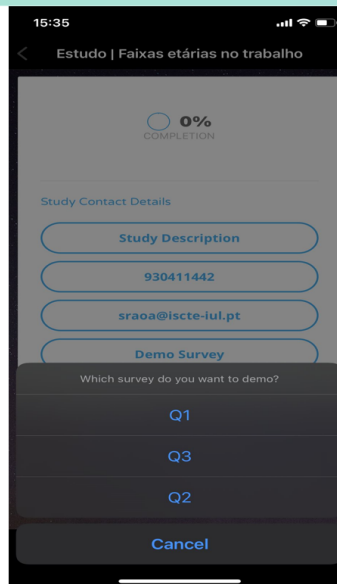
Por exemplo, imagine que sai às 18H do trabalho. Pode responder ao Q2 até às 19H. Não importa se é logo imediatamente a seguir, se é 15 ou 30 minutos depois, desde que siga sempre esta lógica para responder ao Q2



Passo 6: Responder ao Q3

No mínimo 1 hora após ter chegado a casa, já pode responder ao **Q3**. Faça o mesmo processo, só que desta vez clique em Q3.

Por exemplo, imagine que chega a casa às 19H. Pode responder ao Q3 a partir das 20H (1H após ter chegado a casa). Não importa se é logo imediatamente a seguir, se é 15 ou 30 minutos depois, desde que siga sempre esta lógica para responder ao Q3



Indicações | Do 2º ao 7º dia

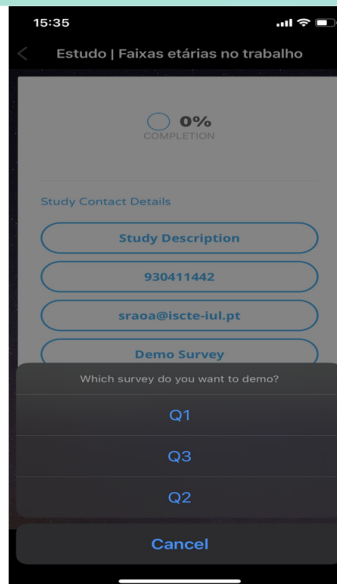
1. Até 1H após sair do trabalho, responder ao Q2
2. No mínimo, 1H após ter chegado a casa responder ao Q3



Passo 1: Responder ao Q2

Até 1 hora depois de ter saído do trabalho, faça o mesmo processo que anteriormente mas desta vez clique em **Q2**.

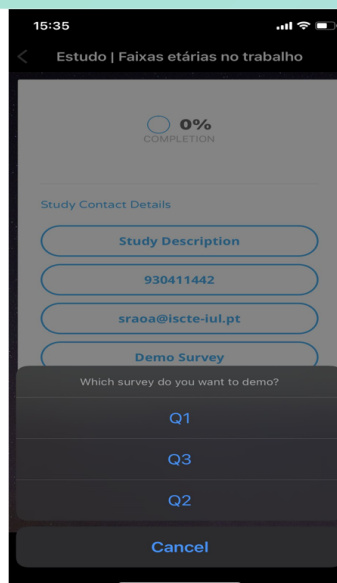
Por exemplo, imagine que sai às 18H do trabalho. Pode responder ao Q2 até às 19H. Não importa se é logo imediatamente a seguir, se é 15 ou 30 minutos depois, desde que siga sempre esta lógica para responder ao Q2

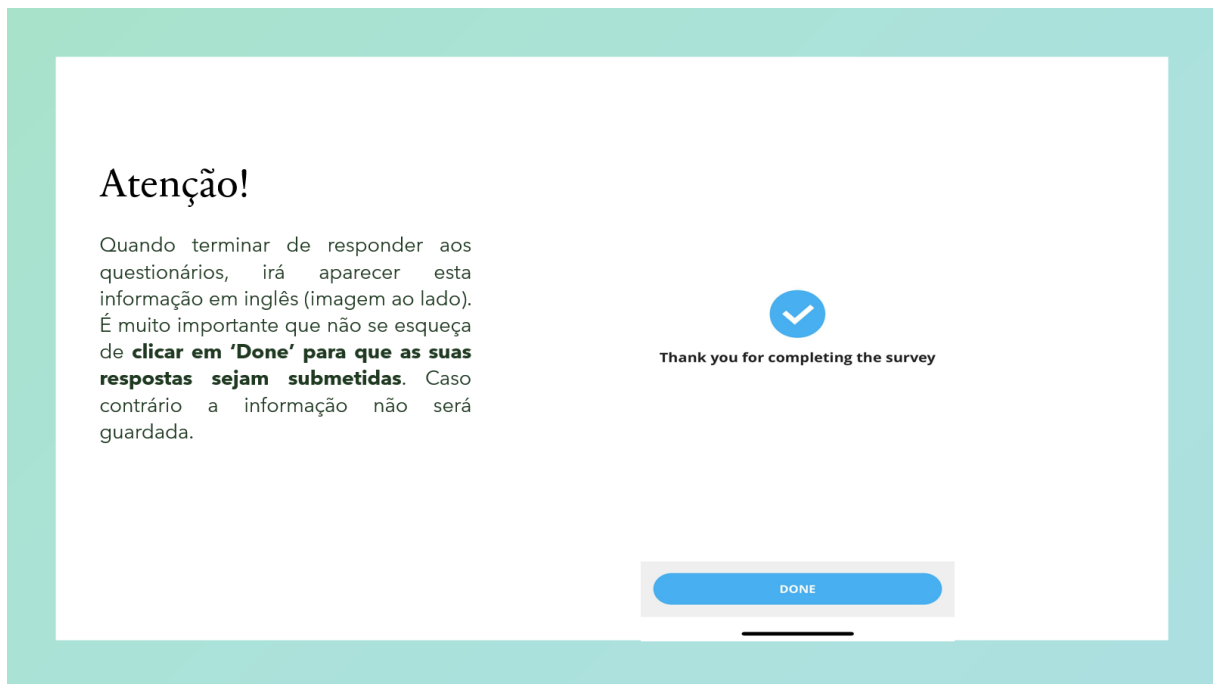


Passo 2: Responder ao Q3

No mínimo 1 hora após ter chegado a casa, já pode responder ao **Q3**. Faça o mesmo processo, só que desta vez clique em Q3.

Por exemplo, imagine que chega a casa às 19H. Pode responder ao Q3 a partir das 20H (1H após ter chegado a casa). Não importa se é logo imediatamente a seguir, se é 15 ou 30 minutos depois, desde que siga sempre esta lógica para responder ao Q3





Muito obrigada pela sua disponibilidade em participar!

1. Saiba que para que a sua participação seja contabilizada é de extrema importância que se **comprometa a responder durante os 7 dias de trabalho, respeitando a ordem e horário de resposta dos questionários**. Ainda assim, saiba que é sempre possível desistir a qualquer momento!
2. Saiba que **pode contactar-me a qualquer momento**, não desista à primeira estarei sempre disponível para ajudá-lo/a. ☺
3. **Contactos para dúvidas**
4. E-mail: sraoa@iscte-iul.pt
5. Número de telemóvel: +351



Figure C.1 – Instructions (PowerPoint)

Annex D

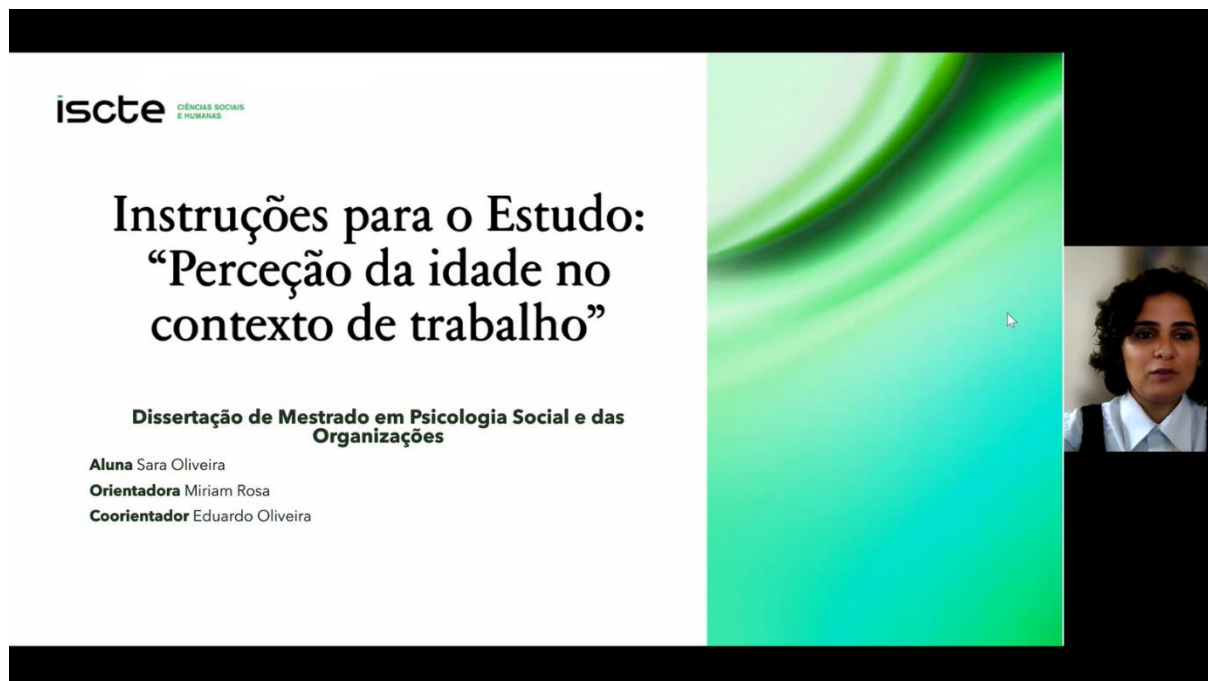
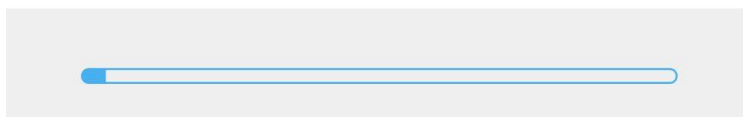


Figure D.1 – Instructions (Video)

Annex E



Declaro que li a informação apresentada,
que tenho pelo menos 18 anos e que
consinto participar no presente estudo.

Sim

Não

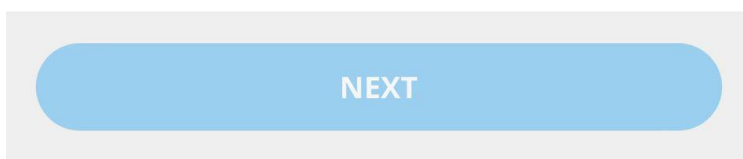


Figure E.1 – Informed Consent at Q1 (SEMA3)