



The Relationship between Age Diversity and Well-Being in Virtual Workplaces: Exploring the Role of Age Stereotypes, Communication, Team Identification and Creativity.

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Abstract

Age diversity – the extent to which members of a work team show dissimilarities in their age – has been identified as a potential factor in individual well-being. We examined the extent to which age diversity affects individual-level perceptions (creativity, communication, and group identification) and, in turn, the well-being of virtual team members. The results of diversity research to date have been inconclusive in terms of the positive or negative effects of team composition on individual well-being. This paper proposes that the relationship between age diversity and each individual-level perception is moderated by the level of age stereotypes each individual holds. We further postulate that the level of age stereotypes individuals have moderates the effect of age diversity on well-being through each perception. We propose that the indirect effect is negative and stronger when age stereotypes are more pronounced. We tested our hypotheses using data from a total sample of 202 participants and a subset of this sample that included only participants younger than 29 years ($n = 119$). Moderation effects were found to be significant only for communication and not for creativity or group identification. For the mediator communication, moderated mediation was confirmed for both samples, whereas for creativity, the effect was significant only for the young sample and for group identification for neither sample. The implications of these results are discussed.

Keywords: age diversity, age stereotypes, creativity, communication, group identification, subjective well-being, virtuality

Título: A Relação entre a Diversidade Etária e o Bem-Estar em Ambientes de Trabalho Virtuais: o Papel dos Estereótipos da Idade, Comunicação, Identificação da Equipe e Criatividade.

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Resumo

A diversidade etária - a medida em que os membros de uma equipa de trabalho apresentam diferenças de idade - foi identificada como um potencial fator de bem-estar individual. Examinámos até que ponto a diversidade etária afeta as percepções a nível individual (criatividade, comunicação e identificação no grupo) e, por sua vez, o bem-estar dos membros de equipas virtual. Até à data, os resultados da investigação sobre diversidade têm sido inconclusivos no que diz respeito aos efeitos positivos ou negativos da composição duma equipa no bem-estar individual. Esta dissertação propõe que a relação entre a diversidade etária e cada percepção a nível individual seja moderada pelo nível de estereótipos etários que cada indivíduo possui. Além disso, sugerimos que o efeito da diversidade etária no bem-estar através de cada mediador é moderado pelo nível de estereótipos etários que os indivíduos possuem. Propomos que o efeito indireto seja negativo e mais forte quando os estereótipos etários são mais pronunciados. Testámos as nossas hipóteses utilizando dados de uma amostra total de 202 participantes e um subconjunto desta amostra que inclui apenas participantes com menos de 29 anos ($n = 119$). Os efeitos de moderação foram significativos apenas para a comunicação e não para a criatividade ou identificação de grupo. Para o mediador comunicação, a mediação moderada foi confirmada para ambas as amostras, enquanto que para a criatividade o efeito foi significativo apenas para a amostra jovem e para a identificação no grupo para nenhuma das amostras. As implicações destes resultados são discutidas.

Palavras-chave: diversidade etária, estereótipos etários, criatividade, comunicação, identificação de grupo, bem-estar subjetivo, virtualidade

Acknowledgments

Throughout my master's program, my interest in organizational behavior has grown significantly. As I prepare to enter the workforce, the evolving dynamics of the modern workplace present an exciting and challenging landscape. With the rise of remote work and virtual teams, the workplace is rapidly changing, offering new opportunities for collaboration and innovation. The growing emphasis on diversity and inclusion aligns with my interests and values and positions me to make a meaningful contribution to creating more inclusive and equitable work environments.

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Table of Content

- List of Tables V**
- List of Figures V**
- List of Abbreviations V**
- 1. Introduction 1**
- 2. Theoretical Framework 3**
 - 2.1 Virtual Teams..... 3
 - 2.2 Age Diversity in Virtual Teams and the Role of Age Stereotypes 5
 - 2.3 Structural Dimensions of Subjective Well-Being..... 6
 - 2.4 Analyzing the Role of Age Diversity on Individual-Level Perceptions..... 8
 - 2.4.1 Creativity 9
 - 2.4.2 Communication 11
 - 2.4.3 Group Identification 13
- 3. Methodology and Data..... 15**
 - 3.1 Sample 15
 - 3.2 Variables 18
 - 3.3 Analysis 21
- 4. Results 23**
- 5. Discussion 33**
 - 5.1 Creativity 34
 - 5.2 Communication 35
 - 5.3 Group identification 36
 - 5.4 Effects on well-being..... 37
 - 5.5 Theoretical Implications..... 37
 - 5.6 Managerial Implications..... 38
 - 5.7 Limitations and Directions for Future Research 39

6. Conclusion.....	41
References	V
Appendix	XVII

List of Tables

Table 1: Descriptive Statistics Table (Whole Sample).....	16
Table 2: Descriptive Statistics Table (Young Sample)	17
Table 3: Correlation Matrix of all variables (Whole Sample).....	17
Table 4: Correlation Matrix of all variables (Young Sample).....	17
Table 5: T-Test comparing means for all important variables for a young vs. old sample.....	22
Table 6: Regression results for H1a and H1b (Whole & Young Sample).....	24
Table 7: Summary of standardized conditional indirect effects: Creativity as the mediator....	25
Table 8: Regression results for H2a and H2b (Whole & Young Sample).....	28
Table 9: Summary of standardized conditional indirect effects: Communication as the mediator.....	29
Table 10: Regression results for H3a and H3b (Whole & Young Sample).....	31
Table 11: Summary of standardized conditional indirect effects: Group identification as the mediator.....	32
Table 12: Hypotheses Results Summary	33

List of Figures

Figure 1: The measurement of affective well-being (Warr, 1990), adapted.....	8
Figure 2: Overview of the main variables analyzed in this study.	9
Figure 3: Theoretical moderated mediation model: Creativity as the mediator.....	23
Figure 4: Theoretical moderated mediation model: Communication as the mediator.....	26
Figure 5: The moderating effect of age diversity on communication (Whole Sample).....	27
Figure 6: The moderating effect of age diversity on communication (Young Sample).....	27
Figure 7: Theoretical moderated mediation model: Group identification as the mediator	30

List of Abbreviations

SWB	Subjective Well-being
SWLS	Satisfaction with life scale

1. Introduction

The world of work is currently undergoing two major transformations that are reshaping its landscape. In recent decades, dramatic demographic shifts have profoundly impacted the workforce in most industrialized countries (European Commission, 2019). One notable aspect of these changes is the earlier start of careers for young graduates. This trend can be attributed to changes in the education system (Waechter, 2004). This particular trend is leading to an ever-widening age gap within individual work teams as the workforce continues to age. At the same time, a new generation of workers enters the workforce, creating challenges and opportunities for collaboration and knowledge sharing. Secondly, virtuality in the workplace has grown rapidly since the Covid pandemic (Kaushik & Guleria, 2020). More and more employees are working remotely, participating in hybrid systems, or becoming part of teams that resemble highly virtual teams through the effective use of modern communication technologies (McKinsey Global Institute, 2023). This shift to virtuality is not just a temporary adjustment but a fundamental change in the way work is structured and performed.

The challenges virtual team members face in terms of well-being and mental health are well known and have been confirmed by many researchers. Loneliness, anxiety, and depression are among the most prominent consequences (Crawford et al., 2011; Alexander et al., 2021; Galanti et al., 2021; Johnson et al., 2020). While most research has focused on the external conditions that can affect mental health, few studies have examined the impact of group dynamics on well-being as an individual-level outcome. Shachaf (2008), Horwitz & Horwitz (2007), and Bell et al. (2011) have already highlighted the influence of team diversity on virtual team effectiveness and the importance of understanding the impact of diversity and team composition on team dynamics. Only a few researchers have filled the gap by focusing on how the co-occurrence of increasing age diversity and virtual work environments affects individual well-being (Liebermann, 2016; Taylor et al., 2013; Bellotti et al., 2022). Research has been done on diversity and how it affects certain team dynamics (Jackson et al., 1995). However, most studies analyze diversity as a complex composition of different variables such as age, gender, ethnic background, values, education, and so on (Horwitz & Horwitz, 2007; Joshi & Roh, 2009). Considering the increasing age differences, the factor “age” should receive special attention. The purpose of this study is to combine the two changes and analyze how these effects coexist and affect individual well-being, as these two changes are creating a new paradigm in the world of work that needs to be carefully studied and understood. With this work, we extend current

theorizing by introducing age stereotypes as a moderator that determines the relationship between age diversity and individual well-being. We propose that the individual's evaluation of the older age subgroup determine this relationship rather than the actual age dissimilarities. Therefore, individuals working in diverse teams will be affected differently depending on the degree of dissimilarity within the team and the degree of age stereotypes they hold toward members of different age groups.

As the impact of age diversity on individual well-being in virtual teams remains unclear, the main objectives of this research are to understand (i) under what conditions age diversity influences individual-level perceptions and whether this relationship is moderated by age stereotypes, (ii) how individual well-being in virtual teams is influenced by this complex interplay of different factors, and (iii) whether the relationship is stronger for younger employees, as we assume they hold more age stereotypes, in order to answer the overarching research question: "In virtual work environments, under what conditions does age diversity affect the well-being of team members, and how important is the role of age stereotypes in this dynamic, particularly among younger workers?". To this end, chapter two presents the theoretical framework that leads to the hypotheses for this research. Chapter three outlines the methodology used to conduct the analyses on the data set collected through a survey. Chapter four analyzes the data to evaluate the hypotheses and presents the results. Chapter five presents and discusses the main findings and derives theoretical and managerial implications. Finally, limitations and recommendations for future research are discussed. By exploring the interplay between age diversity and virtual team dynamics, this study aims to provide insights into the factors that promote well-being in age-diverse virtual work environments, providing valuable guidance for managers and individuals alike.

2. Theoretical Framework

The following chapter provides a review of the current literature in the area of virtual teams, combined with relevant findings on the effects of diversity and individual well-being. The hypotheses derived from the scholar's findings summarize the framework for the quantitative analysis that follows.

2.1 Virtual Teams

Virtual teams are usually defined as a group of members who are geographically and organizationally distant from each other but share a common purpose (Townsend et al., 1998). They are groups of individuals who collaborate using technology across geographical distances to achieve organizational objectives (Kirkman et al., 2004). The aim of virtual teams is to overcome time zones, geographical distance, and organizational limits to gather a group of the most qualified employees for the task at hand (Lipnack & Stamps, 1999). Virtual teaming developed because the appropriate supporting technology became available. For organizations, the evolution of communication and information technologies has opened up new opportunities to build successful teams consisting of geographically dispersed employees to solve interdependent problems (Lipnack & Stamps, 2000; Kirkman et al., 2004). The extent of virtuality characterizes these teams, which denotes the use of virtual tools for coordinating and executing team processes, the informational value offered by such tools, and the synchronicity of their virtual interaction (Kirkman & Mathieu, 2005). Virtual teams have emerged as a solution to the challenges posed by globalization and technological advancements, offering numerous advantages. One of the main benefits of virtual teams is the ability to bring together the best people for a task, regardless of their physical or organizational location (Martins et al., 2004). This improves the quality of decision making and problem solving by drawing on the expertise and knowledge of team members from different backgrounds and locations (Griffith et al., 2003). Virtual teams also offer greater flexibility in staffing, allowing organizations to quickly assemble teams to meet market demand (Hoch & Kozlowski, 2014).

While virtual teamwork has its benefits, it also presents some serious challenges for the team as a whole and for each individual that can have a significant impact on the effectiveness of these teams. Virtual teams face particular challenges that are likely to reduce productivity and effectiveness (Ale Ebrahim et al., 2009). The lack of face-to-face interaction can make it

difficult to build trust between team members, which can have a negative impact on cooperation and collaboration (Mangla, 2021). Miscommunication, misunderstandings, and difficulties in coordinating tasks and activities can occur in virtual teams because of their heavy reliance on technology for communication (Järvenpää & Leidner, 1999). The lack of informal interactions and spontaneous conversations that occur in traditional face-to-face settings can hinder collaboration and the exchange of ideas among team members (Mangla, 2021). In general, virtual teams often struggle to develop a sense of cohesion and satisfaction, as personal bonds and camaraderie between team members can suffer under virtuality (Hoch & Kozlowski, 2014). Research shows (Warr & Nielsen, 2018; Fisher, 2003; George & Brief, 1992) that job performance and well-being are closely linked. Accordingly, members of a successful team are more likely to experience greater well-being than members of an unsuccessful team. This raises the question of what factors contribute to the success of virtual teams and, thus, to the well-being of employees.

In order to investigate this, it is crucial to understand that the ability of virtual teams to thrive in their given circumstances is highly dependent on the dynamics that occur within these teams, as they play a critical role in the success of virtual teams (Maznevski & Chudoba, 2000). Jackson et al. (2003) emphasize the importance of mindful team composition in assembling a successful team. They suggest that the interaction of several factors is critical to effective team dynamics. Composition is vital for success because it determines what dynamics emerge within a group (Trower & Moore, 1996). Blaise et al. (2008) have highlighted the importance of trust, communication, and technology skills to the success of virtual teams. In addition, clear communication and shared workflows are essential to building and maintaining a successful virtual team (Lipnack & Stamps, 1999). To ensure that these factors can be positively addressed, a shared understanding between the members of one team is necessary. This is most likely to be developed through a similar set of perspectives, backgrounds, and shared experiences (Zakaria et al., 2004). If these factors are not sufficiently present, virtual teams run the risk of not being successful. Bell et al. (2018) have shown that diversity can reduce this shared understanding, thereby reducing team effectiveness and potentially threatening the subjective well-being of team members (Kochan et al., 2003). In contrast, there are cases where team diversity has been shown to increase productivity and effectiveness (Cox & Blake, 1991; Bantel & Jackson, 1989; Roberge & Van Dick, 2010). Since team diversity is rarely unavoidable, it is imperative to better understand the conditions that lead to better outcomes from team diversity.

2.2 Age Diversity in Virtual Teams and the Role of Age Stereotypes

Diversity has been defined as “[...] the distribution of differences among members of a unit with respect to a common attribute [...]” (Harrison & Klein, 2007, p. 1200). Hence, any form of compositional differences among team members is categorized as diversity (Roberson et al., 2017). Given the large number of attributes that can differ significantly between individuals, the literature typically distinguishes between two typologies. “Surface-level” diversity (Jackson et al., 1995), or more observable diversity, is traditionally conceptualized in terms of visible differences in age, gender, and ethnic background (Hicks-Clarke & Illes, 2000), while less observable attributes such as education, organizational tenure, and beliefs (Roberson, 2019) form the second typology, “deep-level” diversity (Harrison et al., 1998). Given the definition of diversity, age diversity as a specific form of diversity is a collective, compositional construct that reflects the age structure of a team or work unit (Boehm & Kunze, 2015).

Highly visible demographic characteristics are among the most important forms of diversity because they are easily visible and measurable (Harrison et al., 2002). This suggests that age is one of the most important characteristics when analyzing the effects of diversity. Recent research has shown that individual differences lead to relationship conflict (Jehn et al., 1997) and negative affective reactions (Chattopadhyay et al., 2004) that possibly undermine individual well-being (Chattopadhyay et al., 2010). Accordingly, we propose that age diversity may be a potential threat to the individual well-being of employees in virtual teams.

Due to its high visibility, age diversity can easily trigger individual prejudices, biases, and stereotypes (Fiske & Neuberg, 1990). It is important to determine not only whether there are significant age differences among team members but also how these differences are perceived by the individuals. Therefore, age stereotypes are introduced as a moderator of the relationship between age diversity and individual well-being. Age stereotypes can be defined as beliefs about the values and behaviors of other people based solely on their membership in a particular age group, without knowledge of their individual characteristics and abilities (Finkelstein, 2014; 2015). Although there is little to no evidence that different age groups differ in their effectiveness at work (Finkelstein et al., 1995), scholars have found that most age stereotypes are held against older workers, who are viewed less positively than members of younger age groups (Gordon & Arvey, 2004). Only a few stereotypes emphasize positive characteristics of older age groups, such as honesty, loyalty, and experience (Liebermann et al., 2013). On the other hand, they are mostly perceived by their younger counterparts as less creative and flexible, slower, resistant to training and change, and prone to illness and accidents (Posthuma &

Campion, 2009; Truxillo et al., 2015; Rhodes, 1983). A study by Finkelstein and colleagues (1995) supports the idea that younger people gave other younger team members better ratings on job skills, developmental potential, and physical strength than members of an older age group. We, therefore, propose that younger workers are more likely to have higher levels of age stereotypes than older individuals and suggest that individuals who experience higher levels of age stereotypes are more likely to experience lower levels of well-being due to age diversity.

2.3 Structural Dimensions of Subjective Well-Being

This study is designed to determine how age diversity affects the well-being of individuals in the workplace. The aim is to assess the direct impact of age diverse teams on the emotions experienced by the employees while they are working in this team. Well-being is a holistic state of physical, mental, and emotional health and contentment that reflects “[...] optimal psychological functioning and experience” (Ryan & Deci, 2001). It is undoubtedly a universal and far-reaching concept, as there are many different approaches to understanding well-being. However, two main concepts emerge from the literature that are widely used to capture the well-being of individuals: hedonic and eudaimonic well-being (Bartels et al., 2019; Ray, 2021; Bradburn, 1969). Both are derived from two philosophies capturing human happiness (Waterman, 1993). Eudaimonic well-being refers to a state of well-being characterized by personal growth, self-acceptance, meaning in life, and autonomy (Lewis et al., 2014; Grant et al., 2007). Hedonic well-being represents a state of well-being that is focused on the pursuit of pleasure and the absence of negative emotions. It is a construct that encompasses the subjective sense of well-being as it is measured by individual emotions and moods, such as satisfaction and happiness (Disabato et al., 2016). This study focuses on the measurement of subjective well-being (SWB). SWB is based on the concept of hedonic well-being and is used almost synonymously with it (Waterman, 2008). This concept aims to understand how individuals evaluate their lives (Diener et al., 1997). The literature around SWB focuses on the mechanisms behind why and how people perceive their lives positively, including both cognitive evaluations and emotional responses (Diener, 1984; Gallagher et al., 2009; Andrews & McKennell, 1980). Diener (1984) defines SWB based on three main components: life satisfaction (cognitive element) as well as positive and negative affect (emotional dimension). Later, Diener and colleagues (1999) expanded the concept to include the measurement of domain satisfaction, such as job satisfaction. Life Satisfaction and domain satisfaction are considered cognitive

components, as they are based solely on subjective beliefs about one's own life (Schimmack, 2008; Andrews & Whitey, 1976; Diener et al., 2009).

Life satisfaction has been defined by Pavot et al. (1991) as the "global evaluation by the person of his or her life." Job satisfaction is typically defined as the extent to which people like or dislike their jobs (Spector, 1997). It can be inferred from an individual's attitude toward work (Brayfield & Rothe, 1951), which is how satisfied an individual is with his or her job role or work environment (Hoppock, 1935). Assessing how people feel at work provides insight into their overall satisfaction and happiness (Judge & Watanabe, 1993). Because it emphasizes individual subjectivity, it allows employees to express how they personally perceive their work experiences, which can vary widely from person to person (Angner, 2010). Affective response is the emotional dimension of SWB (Diener & Emmons, 1984). Bradburn (1969) provided evidence that emotional response is not a single construct but consists of two separate emotions: positive affect and negative affect. The independent components of positive and negative affect require specific models for accurate assessment (Lucas et al., 1996). One of the most established models for measuring affect is Warr's model of affective well-being. His model describes well-being as the experience of positive emotions and positive affect and the absence of negative emotions (Lyubomirsky et al., 2005). It measures an individual's emotional life, both in terms of the frequency and intensity of the emotions experienced. A high level of affective well-being is reflected by frequent positive emotions and infrequent negative emotions (Daniels, 2000). Warr's structure of affect is based on the assumption that emotions are highly interconnected and do not occur in isolation or independently. His model is derived from Russell's (1980) two-dimensional model of affect. In his model, Warr (1990) demonstrates that most observable emotions and moods can be explained by a model with two orthogonal dimensions: arousal and pleasure. These two emotions define the space of the circumplex model. Every principal type of affect can be located anywhere within this model. The arousal dimension is not considered to reflect well-being on its own. Therefore, its poles are not labeled, and the two key measures of affective well-being: "Anxious-Contented" and "Depressed-Enthusiastic" are concentrated around the Pleasure axis (see Figure 1). This approach makes each emotional state recognizable and unique, as it occupies a specific place within this two-dimensional framework. In the resulting circumplex model, the emotional states are arranged along a continuous circle. Terms describing similar moods (e.g., enthusiastic and optimistic) are positioned close to each other along the circle. At the same time, opposites (e.g., worried and relaxed) are opposed in the circular representation (Van Katwyk et al., 2000).

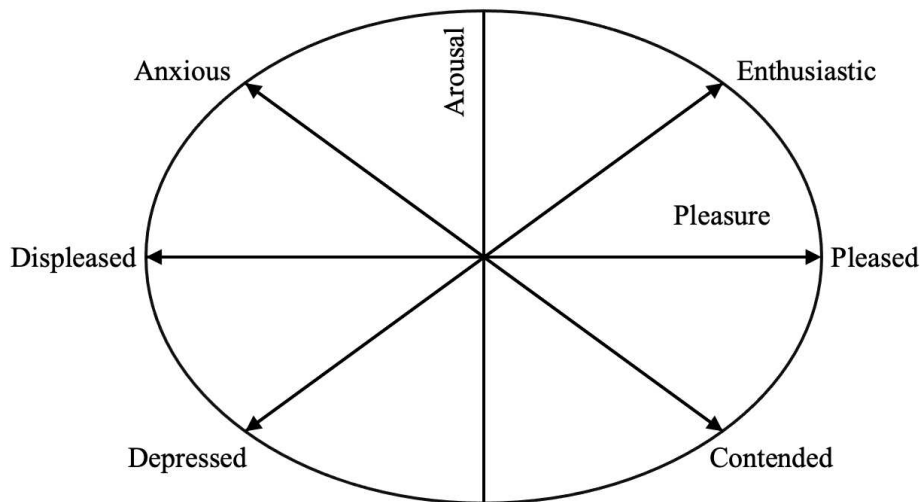


Figure 1: The measurement of affective well-being (Warr, 1990), adapted

In summary, subjective well-being is a three-dimensional construct that measures satisfaction and affect in different domains. It consists of positive and negative affect, life satisfaction, and job satisfaction.

2.4 Analyzing the Role of Age Diversity on Individual-Level Perceptions

Having discussed the dependent variable, subjective well-being, the independent variable, age diversity, and the moderator age stereotypes, it is essential to explain next the mediating effects we expect to be influential on the relationship between the two. By learning about the conditions under which an association between age diversity and well-being is either larger or smaller, we aim to explain the processes by which age diversity influences subjective well-being. In particular, the literature suggests that creativity (Cox, 1993), communication (Lipnack & Stamps, 2000), and group identification (Taras et al., 2019) are influenced by group composition and contribute significantly to individual well-being. As consequences of age diversity and the sources of wellbeing, we seek to understand the potential mediating role of these three variables in the next chapter.

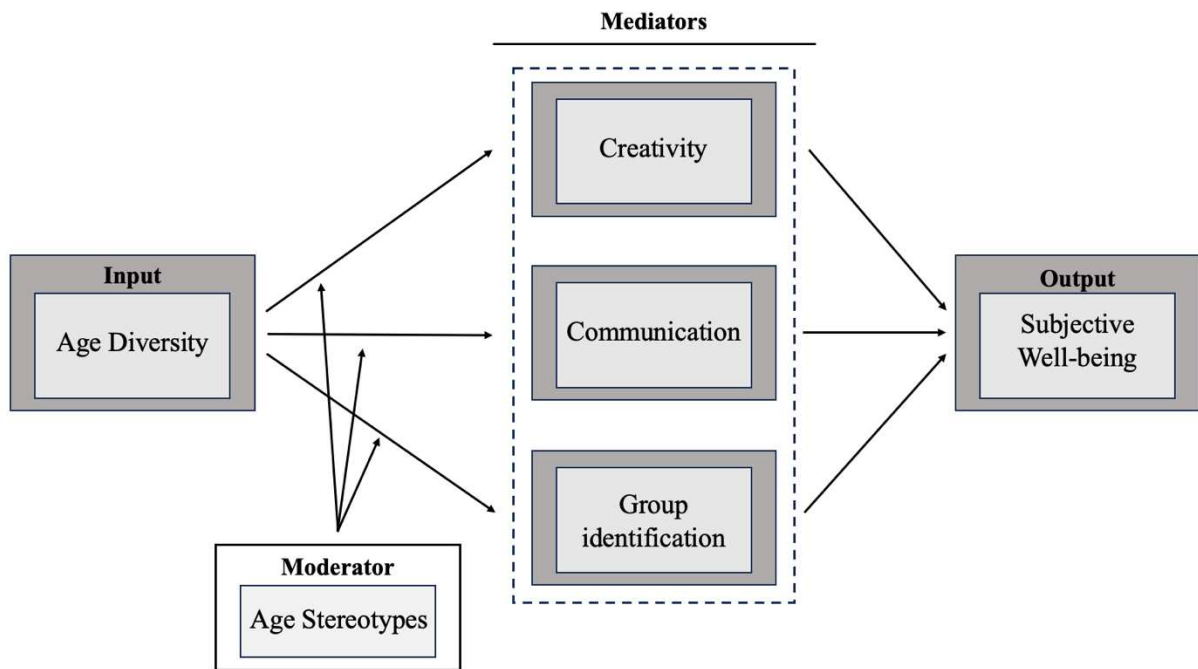


Figure 2: Overview of the main variables analyzed in this study.

2.4.1 Creativity

The contemporary approach defines creativity as “[...] the production of novel and useful ideas in any domain” (Amabile, 1996). For an idea or product to be considered creative, it must be something completely new and valuable or appropriate for the goal at hand. Unlike the traditional view that creativity is primarily a function of individual differences and that only people with creative traits can produce creative outcomes (Barron & Harrington, 1981), this view holds that anyone with “normal capabilities” can produce decent creative outcomes without having any specific creativity characteristics or skills.

The central feature of Amabile’s (1996) theory is that the social environment has the greatest impact on creativity. This means that elements of the work environment can significantly influence an individual’s ability to be creative. One specific element of the work environment that Amabile and colleagues (1996) identify in their theory is the encouragement of creativity within work groups. Creativity is strongly influenced by whether individuals feel supported in their creative work by their teams. Madjar et al. (2002) confirm the idea that an important condition for high creativity is the support that employees experience in their work teams. Creativity can be fostered by diversity in the backgrounds of team members. This is supported by the results of researchers who find that diversity is a key determinant of both individual and collective creative performance (Payne, 1990) and that group composition is related to

individual creative outcomes (King & Anderson, 1990; Woodman et al., 1993). This is because age diversity brings together different generations, which can result in a broad mix of experiences and perspectives that inspire individuals to generate new and unique ideas. Cox (1993) suggests that a diverse team can increase the range of resources and creativity available to the team, thereby stimulating individual creativity. This idea is supported by Blaise et al. (2008), who found that diversity can foster creativity and originality among team members by combining different mindsets and perspectives. In essence, a team with diverse experiences and backgrounds provides many alternative points of view, catalyzing individual team members to develop innovative solutions. Diversity ensures a comprehensive exploration of solutions and improves the quality of decisions made by the team (Wanous & Youtz, 1986). Therefore, it is most likely that individuals who are part of a diverse team experience higher levels of creativity. However, the effect of age diversity on individual creativity may be dampened by the presence of age stereotypes. Because employee's perceived work environment is critical to creativity (Amabile et al., 1996), individuals will only respond positively if other team members have positive attitudes toward each other (Siegel & Kaemmerer, 1978). Thus, individuals with lower levels of age stereotypes will be more likely to respond positively to age diversity within their team with higher levels of creativity.

Research by Acar and colleagues (2021) has shown a positive link between creativity and well-being. Their findings suggest that engagement in creative activities contributes to a better sense of overall happiness and life satisfaction. Conversely, individuals with higher levels of well-being tend to have enhanced creative abilities, suggesting that a positive emotional state may encourage and facilitate creativity. The work of Amabile and her research team (2005) supports the connection between positive affect and creativity. It is evident from their research that a positive mood can lead to an improvement in performance when it comes to creativity. Empirical research is relatively consistent in supporting a positive relationship between well-being and creativity at the individual level (Amabile et al., 2005). We assume that team members who experience higher levels of individual creativity in their team may also experience higher levels of well-being.

H1a: The relationship between age diversity and creativity is moderated by the level of age stereotypes. The more negative age stereotypes individuals hold, the weaker the positive relationship between age diversity and creativity.

H1b: Age stereotypes moderate the indirect effect of age diversity on individual well-being via creativity, such that the indirect effect is negative and stronger when age stereotypes are more pronounced.

2.4.2 Communication

Communication is an essential component of virtual teamwork. Only with the development of new communication and information technologies has virtual teamwork become a new phenomenon (Lipnack & Stamps, 2000). A key feature is that it takes place primarily through virtual tools (Gibson & Cohen, 2003). This highlights the role of technology in enabling communication in virtual teams through tools such as video and audio connections, electronic whiteboards, email, instant messaging, websites, and chat rooms (Jianhua, 2012). These technological tools serve as a substitute for the physical meeting of team members and enable communication in virtual environments. Working together virtually requires all team members to use online communication tools appropriately and effectively. Failure to do so often leads to misunderstandings that negatively impact the development of common understanding among team members (Cramton, 2001; Hinds & Weisband, 2003). Because virtual teams do not communicate face-to-face, it can be more difficult for members to interpret messages. Computer-mediated communication depersonalizes interactions, leading to a greater focus on the actual words in the message, potentially impacting the richness and clarity of communication. With fewer contextual and nonverbal cues to understand the intended meaning of messages, members must be able to navigate the limitations of communication technologies (Daft & Lengel, 1986).

Additionally, the lack of physical interaction in virtual teams, as highlighted by Rosen et al. (2006), not only leads to misinterpretation and depersonalization of interactions but also hinders the building of working relationships. In the absence of frequent physical communication, virtual team members often struggle to build meaningful and effective relationships with their other team members, which significantly reduces building a team identity (Duarte & Snyder, 2001; Lipnack & Stamps, 2000). Missing team cohesion can hinder seamless collaboration and knowledge sharing within virtual teams, impacting overall team productivity and performance (Rosen et al., 2006). When navigating the virtual world, age diverse teams face several communication challenges that can affect their efficiency and performance, as age diversity in virtual teams exacerbates the communication difficulties described above. As Zakaria (2017)

highlighted, the problem of miscommunication and misunderstanding can be intensified by age diversity. Different age groups are most likely to have different communication styles and preferences in their use of communication tools. Therefore, the clarity of messages in age diverse teams is threatened not only by the lack of face-to-face interaction but also by age differences. In addition, younger age groups tend to be more familiar with online tools and use them differently (Lipnack & Stamps, 2000).

They may use these tools in ways that differ from older team members, reflecting different digital behaviors, preferences, and expectations. These differences in technological familiarity and usage patterns among different age groups can further contribute to communication and collaboration challenges within diverse virtual teams (Venter, 2017). In addition to quality, the frequency of communication may also be reduced, as Zenger & Lawrence (1989) suggest. They showed that highly diverse teams are likely to talk less. As a result, team members have fewer opportunities to clarify misunderstandings. Thus, we expect individuals in highly age diverse teams to face greater communication challenges. In the presence of age stereotypes, these challenges may be even more pronounced, as differences in the communication style between different age groups can be exacerbated by stereotypes (Williams & Nussbaum, 2001). When employees hold stereotypes about other age groups, it can reduce mutual respect and openness, which can impact knowledge transfer and effective communication (Twenge et al., 2010).

These challenges can evolve into complex issues that affect the well-being and integration of individual team members, leading to friction and frustration within the group (Stich, 2020). Misunderstood communication and limited development of trust have a negative impact on employee well-being, as shown by Furumo (2007). As Kalman et al. (2011) point out, competence in managing emotions through the skillful use of verbal resources such as paralinguistic cues, timing management, and emoticons proves critical to maintaining clarity and emotional coherence in online communication. Accordingly, we postulate that communication mediates the relationship between age diversity and well-being.

H2a: The relationship between age diversity and communication is moderated by the level of age stereotypes. The more negative age stereotypes individuals hold, the stronger the negative relationship between age diversity and communication.

H2b: Age stereotypes moderate the indirect effect of age diversity on individual well-being via communication such that the indirect effect is negative and stronger when age stereotypes are more pronounced.

2.4.3 Group Identification

Social identity and identification with the group play an essential role in a team's success and are strongly influenced by the group composition (Tajfel & Turner, 1986). As proposed by Tajfel and Turner (1986), social identity theory focuses on how individuals define themselves based on their group memberships and seek to achieve or maintain self-esteem by positively differentiating their ingroup from an outgroup. According to the theory, the individual self-concept is not influenced by personal characteristics but rather by the perceived membership in relevant groups such as work teams (Turner & Oakes, 1986). This sense of belonging to the group and the emotional significance attached to it contribute significantly to the promotion of a positive self-concept, which is essential for one's well-being (Hogg, 2016). The theories of similarity attraction and social identity state that people are more attracted to those who are similar to them. People tend to identify more strongly with a social group when the differences among its members are minimal. The theory posits that people naturally categorize themselves and others into social groups based on shared characteristics (Byrne, 1997).

As Haas (2010) explains, generating a shared social identity is profoundly influenced by age. Members of diverse teams build their social identity either on team membership or on their subgroup membership (Chattopadhyay, 2004). Riordan (2000) notes that demographic characteristics carry more weight when team members perceive themselves as different from the team. As diversity increases, the differences between subgroups become more pronounced. As a result, dissimilar team members may identify with their demographic subgroup rather than the team as a whole, especially in highly age diverse groups. Finkelstein's (2014) perspective emphasizes that the categorization of individuals as in-group and out-group members is shaped by the characteristics of the observer (Zarate & Smith, 1990), adding another nuanced layer to the dynamics of group identification. Age diversity can lead to fragmentation within teams, particularly when perceived differences among age groups are substantial. The results of Baugh and Graen (1997) show that members of heterogeneous groups perceive their teams as less effective than members of homogenous teams. In teams with a high degree of age diversity, we assume that the group identification of individuals tends to be lower, as they consequently do not identify with their team. Furthermore, we expect age stereotypes to reinforce this relationship, as individuals who hold negative stereotypes may evaluate their own age group as superior (Liebermann, 2016).

Once individuals identify with a particular group, they tend to develop a sense of belonging and loyalty to that group. A strong sense of cohesiveness and the ability to build a unified sense of

identity in a work team is important for both team success and individual well-being. Cohesion and satisfaction of all team members are affected when age diverse teams split into different subgroups (Taras et al., 2019), as an individual's commitment to the group is more significant when they can identify with the group. In addition, cohesion, cooperation, lower turnover, conformism, and attachment to the group are positive effects that result from group identification (Ashfort & Mael, 1989). Consequently, dissimilar group members are likely to be viewed as less trustworthy, likable, and honest. O'Reilly and colleagues (1989) found that age heterogeneity within a group was linked to lower levels of social integration and higher levels of dissatisfaction. We suggest that it is likely that the relationship between age diversity and well-being is mediated by group identification.

H3a: The relationship between age diversity and group identification is moderated by the level of age stereotypes. The more negative age stereotypes individuals hold, the stronger the negative relationship between age diversity and group identification.

H3b: Age stereotypes moderate the indirect effect of age diversity on individual well-being via group identification such that the indirect effect is negative and stronger when age stereotypes are more pronounced.

3. Methodology and Data

To investigate the relationship between age diversity and individual well-being, a quantitative research approach was chosen as the most appropriate method. Specifically, a correlational study was conducted to analyze the relationships between age diversity, age stereotypes, communication, creativity, group identification, and subjective well-being. This study follows a cross-sectional correlational research design in which data was collected at a single point in time to examine the relationships between these variables. The primary focus of this study is to explore the relationships between the constructs through self-reported measures.

The survey was conducted with a pre-defined target group: Individuals over the age of 18 who are currently employed and part of a work team. Given the limited accessibility of potential participants, a random sampling method was chosen to collect data from readily available respondents. The survey is not time-lagged, meaning that all variables were measured simultaneously at a single point in time. The survey instrument used in this study consisted entirely of closed-ended questions, primarily using 5-point Likert scales for measurement. The survey was designed and administered using Qualtrics, an online survey tool.

The survey questionnaire was initially developed in English. The first questions in the survey asked if participants were currently part of a team and only those who answered “yes” were allowed to proceed. This selection criterion ensured the relevance of the findings to the research questions, as only individuals who could be affected by age diversity in virtual teams were able to participate. To reach potential respondents, the survey link was shared across various WhatsApp groups, social media platforms, and forwarded to LinkedIn profiles. Ethical considerations were taken into account throughout the research process. Prior to accessing the survey, participants gave their informed consent to participate after being informed in writing of the objectives of the study, the guarantee of confidentiality and anonymity of the data, and the contact information of the primary researcher. As the research involved the completion of a voluntary and anonymous survey, no harm or distress to the participants was expected.

3.1 Sample

The sample is a convenience sample consisting of 272 individuals who all agreed to participate in this study. To focus the analysis more specifically on the effects of current affect, we asked the participants if they were currently working in a team setting. 68 respondents were excluded

from the sample because they reported that they did not currently work in a team. At the end of the survey, participants were asked if they were comfortable answering each question in English to avoid misleading responses due to language barriers, as almost no one in the sample is a native English speaker. Two people indicated that they were not comfortable answering the questions in English, so they were excluded from the analysis. This leaves a significant sample of 202 participants (N = 202). Of the participants, 97 (48.02%) were male and 105 (51.98%) were female. The age ranged from 20 to 62 years, with a mean age of 34 (33.65) years. 119 people in the sample (58.59%) are 29 years old or younger, 50 (24.75%) are older than 50. Given the researcher's proximity to the European population, this study focused on European participants, as only three have non-European nationalities (South Africa & America). The majority of the sample is German, with 171 participants (84.65%). The average team size is 14.62 people (SD 15.04; min 2, max 110). On average, participants have 10.66 years of experience (SD 11.28; min 1, max 38) in different industries. Only 23.76% (48) have a leadership role within their team. In the following, when we refer to the "Whole Sample", we mean the sample described above, including all 202 participants. From the same sample, we constructed another sample, the "Young Sample", which includes only those participants who are 29 years old or younger (N = 119). Descriptive statistics and correlation matrixes for both samples are shown below (Tables 1 - 4).

Table 1: Descriptive Statistics Table (Whole Sample)

	Whole Sample					
	N	Mean	St. Dev.	Min	Median	Max
Leadership	202	0.238	0.427	0	0	1
Gender	202	0.520	0.501	0	1	1
Age	202	33.649	12.485	20	27	62
Proximity	202	3.203	0.961	1.250	3.438	5.000
Age Diversity	202	2.950	0.950	1	3	4
Age Stereotypes	202	2.940	0.905	1.000	2.800	5.000
Creativity	202	3.483	0.893	1.000	3.667	5.000
Communication	202	3.111	0.812	1.000	3.400	4.000
Group identification	202	3.009	1.030	1.000	3.000	5.000
Well being	202	0.562	0.196	0.083	0.579	0.939
Affect	202	3.394	1.086	1.000	3.667	5.333
SWLS	202	4.828	1.234	1.000	5.000	7.000
Job Satisfaction	202	4.423	1.449	1.250	4.500	7.000

Note. Gender: 0 = male, 1 = female; Leadership: 0= no leadership role, 1 = leadership role

Table 2: Descriptive Statistics Table (Young Sample)

	Young Sample					
	N	Mean	St. Dev.	Min	Median	Max
Leadership	119	0.067	0.251	0	0	1
Gender	119	0.597	0.493	0	1	1
Age	119	24.580	1.834	20	24	29
Proximity	119	3.159	1.019	1.250	3.350	5.000
Age Diversity	119	2.908	0.983	1	3	4
Age Stereotypes	119	3.087	0.872	1.000	3.200	5.000
Creativity	119	3.532	0.937	1.000	3.667	5.000
Communication	119	3.092	0.806	1.000	3.400	4.000
Group identification	119	2.899	1.068	1.000	3.000	5.000
Well being	119	0.561	0.195	0.125	0.561	0.939
Affect	119	3.391	1.105	1.083	3.667	5.333
SWLS	119	4.901	1.168	2.000	5.000	7.000
Job Satisfaction	119	4.326	1.464	1.250	4.000	7.000

Note. Gender: 0 = male, 1 = female; Leadership: 0= no leadership role, 1 = leadership role

Table 3: Correlation Matrix of all variables (Whole Sample)

Whole Sample	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age Stereotypes	1.000												
2. Age Diversity	.393***	1.000											
3. Leadership	-.043	.164*	1.000										
4. Gender	.039	-.008	-.185**	1.000									
5. Age	-.280***	.024	.495***	-.228**	1.000								
6. Creativity	-.357***	-.282***	-.064	.032	-.022	1.000							
7. SWLS	-.356***	-.374***	-.079	-.001	-.001	.384***	1.000						
8. Proximity	-.610***	-.582***	-.065	-.008	.146*	.446***	.438	1.000					
9. Affect	-.539***	-.445***	-.020	-.032	.096	.520***	.625***	.620***	1.000				
10. Communication	-.657***	-.538***	-.005	-.052	.123	.569***	.511***	.761***	.716***	1.000			
11. Group identification	-.628***	-.433***	.092	-.028	.205**	.545***	.572***	.679***	.736***	.745***	1.000		
12. Job Satisfaction	-.515***	-.424***	-.017	-.101	.157*	.526***	.628***	.655***	.770***	.685***	.785***	1.000	
13. Well-being	-.534***	-.468***	-.042	-.053	.099	.542***	.837***	.650***	.903***	.723***	.793***	.913***	1.000

Table 4: Correlation Matrix of all variables (Young Sample)

Young Sample	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age Stereotypes	1.000												
2. Age Diversity	.510***	1.000											
3. Leadership	-.004	.094	1.000										
4. Gender	-.122	-.078	.016	1.000									
5. Age	.126	0.058	0.172	-.048	1.000								
6. Creativity	-.384***	-.339***	-.057	.077	.001	1.000							
7. SWLS	-.368***	-.356***	-.035	.059	-.009	.328***	1.000						
8. Proximity	-.677***	-.652***	-.069	.145	-0.006	.503***	.470***	1.000					
9. Affect	-.567***	-.482***	-.017	.133	-.018	.562***	.581***	.655***	1.000				
10. Communication	-.694***	-.584***	-.073	.129	-.094	.586***	.456***	.792***	.694***	1.000			
11. Group identification	-.590***	-.491***	.073	.172	.068	.567***	.560***	.702***	.766***	.728***	1.000		
12. Job Satisfaction	-.481***	-.447***	-.014	.016	-0.034	.566***	.626***	.671***	.792***	.655***	.801***	1.000	
13. Well-being	-.538***	-.488***	-.024	.077	-.024	.558***	.815***	.688***	.903***	.688***	.811***	.926***	1.000

3.2 Variables

The purpose of this study is to examine the effect of age diversity on individual well-being and whether age stereotypes can act as a moderator of this effect. In order to test the hypotheses, the survey conducted for this study measures all of the variables using validated scales that have been shown to be effective and legitimate. The survey contained the following variables.

Proximity

Regular teams often share the characteristics of highly virtual teams because employees no longer need to be geographically dispersed to use communication technologies (Mathieu, 2005). As the number of new definitions of virtuality continues to grow, virtuality is not measured by geographic distance, but rather by how employees perceive distance within their teams. Therefore, we adapted Costa et al.'s (2023) measure of experienced distance and adapted the scale for this study to measure perceived proximity at the individual level. The scale is based on Walther and Bazarova's (2008) five-item electronic propinquity scale. Individuals were asked to position themselves on these five different scales ranging from (1) "distant" to (5) "nearby"; (1) "far" to (5) "close"; (1) "separate" to (5) "together"; (1) "remote" to (5) "proximal" and (1) "disconnected" to (5) "connected". Cronbach's alpha for proximity is 0.80, suggesting a reasonably high level of internal consistency for the items within that scale.

In addition, the experienced information deficits of individuals were measured using Hill and Bartol's (2016) effective use of technology for effective communication scale. The scale consists of four items, such as "Our team communicates virtually, i.e., using technologies, with other team members in a way that is clear and easily understood". Participants were asked to indicate their agreement on a 5-point Likert scale ranging from (1) "completely disagree" to (5) "completely agree". The internal consistency of the scale was Cronbach's alpha = 0.77.

Age Diversity and Age Stereotypes

To assess the level of age diversity within participant's teams, the item "Please rate the age diversity within your work team (meaning the team members are all about the same age)" was used. The response scale ranges from (1) "There are no age differences in my team (meaning the team members are all about the same age)" to (4) "The team is very age diverse (meaning there are very large age differences within the team)".

Since age stereotypes have been introduced as a moderator of the relationship between age diversity and individual well-being, it is important to determine whether participants hold any

form of stereotypes. The literature suggests that most age stereotypes are held against older workers, who are viewed less positively than members of younger age groups (Gordon & Arvey, 2004). Therefore, the items that were used to measure stereotypes are: “Older employees are less flexible than younger employees”, “Older employees are less engaged in their job”, “Older employees are absent more often than younger employees”, “Older employees are less cooperative in their job” and “Older workers are less interested in learning new skills”. Possible responses range from (1) “strongly disagree” to (5) “strongly agree”. All items measuring age diversity, as well as age stereotypes, were derived from Liebermann and colleagues’ (2013) study of age diversity and individual health. The internal consistency of the scale was Cronbach’s alpha = 0.80.

Well-being

Because this study measures subjective well-being as an indicator of individual well-being, participants were asked three different sets of questions since subjective well-being is constructed from three components. According to Diener’s (1984) theory, it consists of life satisfaction, positive and negative affect, and later, the concept was expanded to include the dimension of job satisfaction (Diener et al., 1999).

Items from the *Satisfaction With Life Scale (SWLS)* (Diener et al., 1985) were implemented to measure how satisfied the participants were with their lives. Each one of them was asked to indicate their agreement from (1) “strongly disagree” to (5) “strongly agree” with the following statements: “In most ways, my life is close to my ideal”, “The conditions of my life are excellent”, “I am satisfied with my life”, “So far I have gotten the important things I want in life”, “If I could live my life over”, “I would change almost nothing”. The internal consistency of the scale was Cronbach’s alpha = 0.86.

To measure positive and negative effects, Warr’s (1990) model of affect was adapted. In his model, Warr proposes six adjectives to measure the two important bipolar axes. Job-related “anxiety-satisfaction” is measured by the adjectives tense, uneasy, worried, calm, contented, and relaxed. The other axis, job-related “depression-enthusiasm” is measured by the adjectives depressed, gloomy, miserable, cheerful, enthusiastic, optimistic (see Appendix 1). Respondents were asked how often ((1) “all of the time”; (6) “never”) their job made them feel the above adjectives in the past few weeks. The first three items in each scale are reverse coded so that the summary scores indicate enthusiasm and contentment. The internal consistency of the scale was Cronbach’s alpha = 0.87.

Satisfaction at work was tapped by Hackman and Oldham's (1974) Job Diagnostic Survey. Measures of job satisfaction were modified to include only those questions appropriate for this study. Respondents were asked to indicate on a 7-point Likert scale how satisfied they are with their job, how much personal satisfaction they get from it, how meaningful their work is to them, and how often they think about quitting. The response scale ranges from (1) "disagree strongly" to (7) "agree strongly". Questions that captured negative affect were reverse coded. The well-being indicator consists of the mean of the standardized items of all three dimensions, with high scores indicating a high level of subjective well-being and low scores indicating a low level of well-being. The internal consistency of the scale was Cronbach's alpha = 0.78.

Creativity

Individual subjective ratings were used to measure team creativity. This is consistent with Runco's (2005) argument that creativity may be better captured by participant's subjective ratings than by expert ratings. Because we follow Amabile's (1996) central theory that elements of the work environment affect individual's creativity, we want to assess whether or not individuals feel supported by their environment to be creative. Therefore, we adopted some of the survey items from Madjar and colleagues (20002) to assess the support for creativity that individuals receive from their coworkers. We asked participants how strongly they agreed with the following statements on a 5-point Likert scale from (1) "strongly disagree" to (5) "strongly agree". The statements presented to the participants were: "My coworkers other are almost always supportive when I come up with a new idea about my job", "My coworkers give me useful feedback about my ideas concerning the workplace" and "My coworkers are always ready to support me if I introduce an unpopular idea or solution at work." The internal consistency of the scale was Cronbach's alpha = 0.68.

Communication

Computer-mediated communication depersonalizes interactions, leading to a greater focus on the actual words in the message, which can affect the richness and clarity of communication (Daft & Lengel, 1986). Therefore, it is important to assess the quality of communication that individuals experience in their virtual teams. As noted by Marlow et al. (2017), when measuring the effectiveness of communication, it is most important to assess quality because it has a much greater impact on team outcomes than other elements of team communication. In their work, González-Romá & Hernández (2014) implemented questions to measure the quality of communication in virtual teams. Their 5-item scale, "To what extent is communication among

members of your team clear/ effective/ complete/ fluent/ on time?” was adopted for this survey. Respondents were asked to indicate their agreement using a 5-point Likert response scale: (1) “Not at all” to (5) “Very much”. Cronbach’s alpha for communication is 0.85, indicating a reasonably high level of internal consistency for the items within this scale.

Group Identification

Following the approach of Han & Harms (2010) to measure group identification, the four highest-loading items of the affective commitment scale (Allen & Meyer, 1990) were adopted. The questions have been adjusted in such a way that they refer to the individual person and ask about the experience in the first-person perspective. The Sample items are “I feel emotionally attached to my team”, “I feel a strong sense of belonging to my team”, “I feel as if the team’s problems are my own”, and “I feel like part of the family in this team”. Items were rated on a five-point Likert scale, anchored from (1) “strongly disagree” to (5) “strongly agree”. The internal consistency of the scale was Cronbach’s alpha = 0.68.

3.3 Analysis

All analyses were conducted with the R Studio software using the “manymome” package from Cheung & Cheung (2023) to estimate moderated mediation effects. Estimation of a moderated mediation model using the “manymome” package involves two main steps. First, a set of two multiple regressions are run to test the relationship between the mediator and the outcome variable and several other independent variables. Then, to test for moderated mediation, conditional indirect effects and standardized conditional indirect effects are estimated and tested using bootstrapped confidence intervals in the paths of the fitted model. The conditional indirect effect allows us to test the indirect effect of age diversity on well-being through our mediators for different levels of age stereotypes (Preacher et al., 2007). Bootstrapping in the context of conditional indirect effects standardizes these effects in the sense that it creates a standardized method for estimating confidence intervals and significance, allowing for consistent and reliable inference across models (Pesigan & Cheung, 2020). The regressions as well as the conditional indirect effect are estimated for (i) the full sample and (ii) a sample consisting only of young participants (29 years and younger) to test for significant differences in the moderated mediation effect, as we found that the level of age stereotypes is significantly different for younger participants compared to older participants (see Table 5).

Since previous studies have found that gender (Haring et al., 1984) and leadership responsibility (Little et al., 2007) are related to our main predictor, we included corresponding dummy variables as control variables in our study (gender: 0 = male, 1 = female; leadership role: 0 = no, 1 = yes). We also included proximity and age as further control variables in every model.

Table 5: T-Test comparing means for all important variables for a young vs. old sample

	T-Test		p-value
	Young Sample (≤ 29)	Old Sample (> 29)	
Well-being	0.5609010	0.5646252	0.8953
Age Diversity	2.907563	3.012048	0.4366
Age Stereotypes	3.087395	2.727711	0.005644
Creativity	3.532213	3.413655	0.3436
Communication	3.092437	3.137349	0.7011
Group identification	2.899160	3.165663	0.06518

4. Results

Creativity

The following analysis of the model (Figure 3) aims to answer both hypotheses *H1a* and *H1b*. To test this model, following the approach of Cheung & Cheung (2023), two multiple regression analyses were conducted (Table 6).

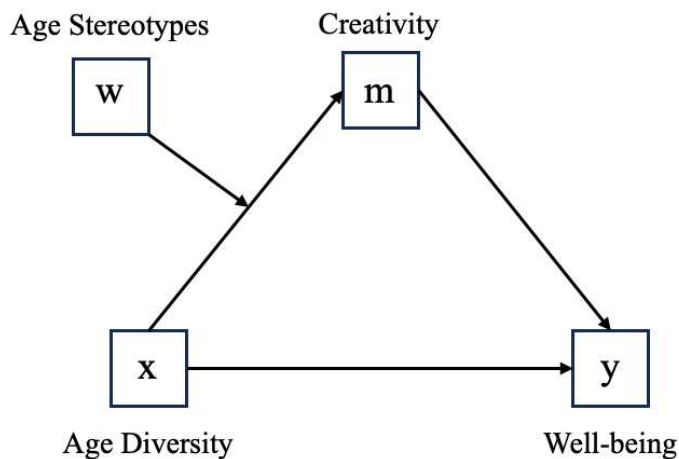


Figure 3: Theoretical moderated mediation model: Creativity as the mediator

The first regression tests the moderating effect of age stereotypes on the relationship between age diversity and creativity. We hypothesized that the more negative age stereotypes individuals hold, the weaker the positive relationship between age diversity and creativity (*H1a*). Creativity is the dependent variable in the model, and age diversity and age stereotypes are the independent variables. To control for the effects, the variables gender, proximity, leadership, and age were included. In addition, an interaction term was added to the regression model to estimate the moderating effect of age stereotypes (Table 6). The coefficients for age diversity and age stereotypes, as well as the interaction term, are not statistically significant for both samples, suggesting that within the scope of this analysis, there is no clear evidence that either age diversity or age stereotypes independently influence creativity levels nor that age stereotypes function as a moderator. Therefore, *H1a* is not supported by the data, as there is no compelling evidence that age stereotypes have a moderating effect on the relationship between age diversity and creativity.

The second multiple regression model (Table 6) captures the mediating effect of creativity on well-being, as well-being is the dependent variable, and creativity and age diversity are the independent variables. The same control variables were included in this regression model. With this regression, we want to test the hypothesis (*H1b*) that age stereotypes moderate the indirect effect of age diversity on individual well-being via creativity such that the indirect effect is negative and stronger when age stereotypes are more pronounced.

Table 6: Regression results for H1a and H1b (Whole & Young Sample)

Variable	Whole Sample				Young Sample			
	Creativity		Well-being		Creativity		Well-being	
	b	SE	b	SE	b	SE	b	SE
Gender	0.029	0.116	-0.021	0.020	-0.003	0.159	-0.010	0.026
Leadership	0.040	0.156	0.0005	0.027	-0.129	0.311	0.026	0.051
Proximity	0.329***	0.086	0.087***	0.014	0.422***	0.123	0.097***	0.018
Age	-0.009	0.006	0.001	0.001	0.025	0.043	0.001	0.007
Age Diversity	0.023	0.238	-0.027**	0.013	-0.202	0.366	-0.013	0.017
Age Stereotypes	-0.138	0.257			-0.283	0.355		
Interaction Term	-0.010	0.080			0.066	0.118		
Creativity			0.070***	0.012			0.059***	0.015
Constant	3.146***	0.833	0.113	0.079	2.425	1.498	0.070	0.197
Adjusted R2	0.196		0.502		0.215		0.513	

Note. Unstandardized regression coefficients are presented in all regression tables. Gender coded as 0 for male and 1 for female. Leadership is coded as 0 for no leadership role and 1 leadership role; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

For both samples, the results indicate a significant positive relationship between creativity and well-being ($b = 0.070$, $p < 0.01$, whole sample and $b = 0.059$, $p < 0.01$, in the young sample), suggesting that higher levels of creativity are slightly associated with better individual well-being. Conversely, age diversity has a significant negative effect on well-being with a coefficient of -0.027 ($p < 0.05$) for the whole sample. To further test the moderated mediation effect that we expect (*H1b*), Table 7 shows the estimated conditional indirect effects and the standardized conditional indirect effects for both samples. To test for significance, nonparametric bootstrap confidence intervals were constructed with R (the number of bootstrap samples) = 2000.

Table 7: Summary of standardized conditional indirect effects: Creativity as the mediator

Paths and effects	Estimates	Standardized Estimates	95% confidence intervals
Whole Sample			
Lower age stereotypes (-1 SD)	-0.009	-0.045	[-0.137, 0.052]
Mean age stereotypes	-0.015	-0.071	[-0.137, -0.012]
Higher age stereotypes (+1 SD)	-0.020	-0.097	[-0.216, 0.002]
Index of moderated mediation	-0.006		[-0.027, 0.010]
Young Sample (<=29)			
Lower age stereotypes (-1 SD)	-0.014	-0.066	[-0.178, 0.038]
Mean age stereotypes	-0.047	-0.228	[-0.306, -0.155]
Higher age stereotypes (+1 SD)	-0.080	-0.389	[-0.502, -0.290]
Index of moderated mediation	-0.037		[-0.054, -0.019]

Table 7 reveals that the index of moderation is only significant for the younger sample (Index = -0.037; 95% CI = [-0.054, -0.019]). The indirect effect of age diversity on individual well-being via creativity was significant and negative when age stereotypes were higher (+1 SD; SE = -0.389; 95% CI = [-0.502, -0.290]) but not when age stereotypes were lower (-1 SD; SE = -0.066; 95% CI = [-0.178, 0.038]) for the younger sample. For the whole sample, the index of moderation is not significant (Index = -0.006; 95% CI = [-0.027, 0.010]). Thus, Hypothesis *1b* is only supported for the younger sample, but when looking at the whole sample, we find no support for *H1b*.

Communication

In order to answer both hypotheses *H2a* and *H2b*, the following analysis of the model (Figure 4) is presented. To test this model, we followed the same approach as before and estimated two multiple regression models (Table 8) and the standardized conditional indirect effects (Table 9) for both samples.

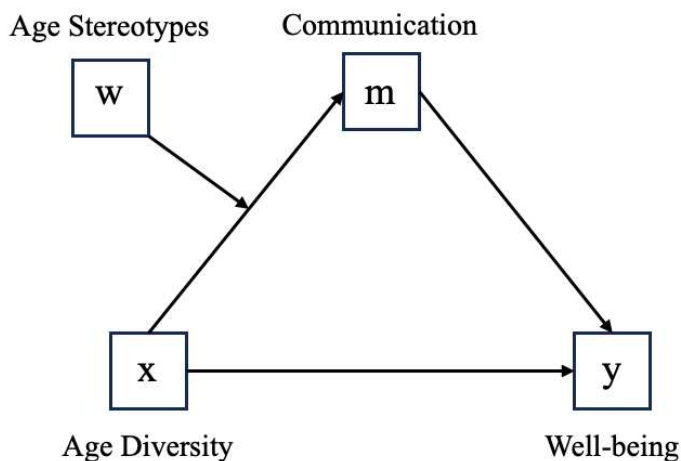


Figure 4: Theoretical moderated mediation model: Communication as the mediator

The first regression (Table 8) tests our hypothesis *H2a* that the relationship between age diversity and communication is moderated by the level of age stereotypes and that the more negative age stereotypes individuals hold, the stronger the negative relationship between age diversity and communication. Gender, proximity, leadership, and age were included as control variables. Additionally, the regression model includes an interaction term to assess the moderating effect of age stereotypes. The multiple regression analysis shows that age diversity appears to have a statistically significant positive impact on communication, with a coefficient of 0.355 ($p < 0.05$) for the whole sample and a coefficient of 0.460 ($p < 0.05$) for the young sample. This suggests that an increase in age diversity is associated with a corresponding increase in the perceived quality of communication. Interestingly, the interaction term has a negative and statistically significant coefficient of -0.163 ($p < 0.01$) and -0.177 ($p < 0.01$), respectively. This supports the idea that the effect of age diversity on communication is moderated by the level of age stereotypes. As age stereotypes increase, they dampen the positive effect of age diversity on communication. However, we expected a negative relationship between age diversity and communication but found evidence that there is a positive relationship. *H2a* is only partially accepted, as we found a moderating role of age stereotypes in this context, but the direction of the relationship between age diversity and communication was contrary to what was predicted. Figures 5 and 6 visualize the moderating effect of age stereotypes on the relationship between age diversity and communication for both samples.

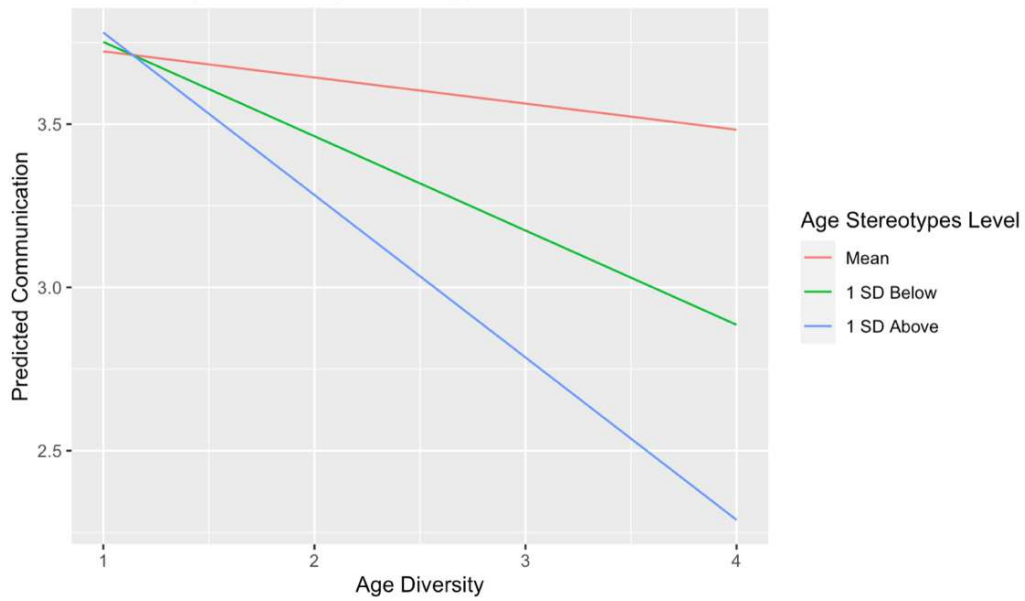


Figure 5: The moderating effect of age diversity on communication (Whole Sample)

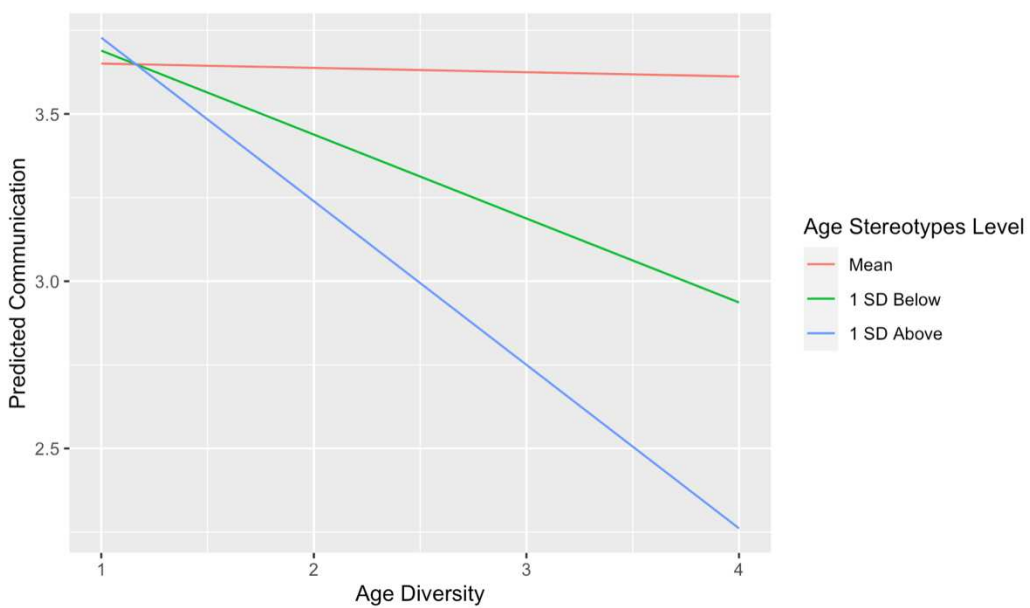


Figure 6: The moderating effect of age diversity on communication (Young Sample)

The graphs show further support for the moderating role of age stereotypes in both samples. Specifically, more pronounced age stereotypes tend to strengthen the negative relationship between age diversity and communication. Conversely, when age stereotypes are less pronounced (at the mean and below the mean), the negative relationship is less severe.

Since well-being is the dependent variable and communication and age diversity are the independent variables, the second multiple regression model (Table 8) captures the mediating effect of communication on well-being. The same set of control variables were also included in

this regression model. With this model, we aim to find support for *H2b* stating that age stereotypes moderate the indirect effect of age diversity on individual well-being via communication such that the indirect effect is negative and stronger when age stereotypes are more pronounced.

Table 8: Regression results for H2a and H2b (Whole & Young Sample)

Variable	Whole Sample				Young Sample			
	Communication		Well-being		Communication		Well-being	
	b	SE	b	SE	b	SE	b	SE
Gender	-0.062	0.068	-0.011	0.019	0.049	0.087	-0.011	0.026
Leadership	0.129	0.091	-0.012	0.026	-0.088	0.171	0.021	0.051
Proximity	0.399***	0.050	0.043***	0.016	0.376***	0.067	0.072***	0.022
Age	-0.006*	0.003	0.0002	0.001	-0.007	0.023	0.003	0.007
Age Diversity	0.355**	0.140	-0.012	0.013	0.460**	0.201	-0.005	0.017
Age Stereotypes	0.219	0.151			0.241	0.195		
Interaction Term	-0.163***	0.047			-0.177***	0.065		
Communication			0.128***	0.018			0.093***	0.026
Constant	1.809***	0.489	0.063	0.077	1.648**	0.823	-0.019	0.203
Adjusted R2	0.665		0.536				0.507	

Note. Unstandardized regression coefficients are presented in all regression tables. Gender coded as 0 for male and 1 for female. Leadership is coded as 0 for no leadership role and 1 leadership role; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

OLS regression in Table 8 revealed that, after accounting for all control variables, communication has a significant and positive effect on well-being in both samples ($b = 0.128$, $p < 0.01$; $b = 0.093$, $p < 0.01$), suggesting that better communication is associated with higher individual well-being. We estimated conditional indirect effects and standardized conditional indirect effects (Table 9) to further test for the moderated mediation model that we assume. With three different levels of the moderator (w), the indirect effect of age diversity on well-being through communication, conditional on the level of age stereotypes, is tested. Nonparametric bootstrap confidence intervals were constructed with R (the number of bootstrap samples) = 2000 to test for significance.

Table 9: Summary of standardized conditional indirect effects: Communication as the mediator

Paths and effects	Estimates	Standardized Estimates	95% confidence intervals
Whole Sample			
Lower age stereotypes (-1 SD)	-0.014	-0.066	[-0.178, 0.038]
Mean age stereotypes	-0.047	-0.228	[-0.306, -0.155]
Higher age stereotypes (+1 SD)	-0.080	-0.389	[-0.502, -0.290]
Index of moderated mediation	-0.037		[-0.054, -0.019]
Young Sample (<=29)			
Lower age stereotypes (-1 SD)	0.000	0.001	[-0.087, 0.108]
Mean age stereotypes	-0.036	-0.183	[-0.265, -0.096]
Higher age stereotypes (+1 SD)	-0.073	-0.368	[-0.506, -0.223]
Index of moderated mediation	-0.042		[-0.065, -0.021]

Table 9 reveals that the index of moderation is significant for the young sample (Index = -0.042; 95% CI = [-0.065, -0.021]) and the whole sample (Index = -0.037; 95% CI = [-0.054, -0.019]), with a more pronounced effect for the young sample. The indirect effect of age diversity on individual well-being via communication was significant and negative when age stereotypes were higher (Whole Sample: +1 SD; SE = -0.389; 95% CI = [-0.502, -0.290]), (Young Sample: +1 SD; SE = -0.368; 95% CI = [-0.506, -0.223]), but not when age stereotypes were lower (Whole Sample: -1 SD; SE = -0.066; 95% CI = [-0.178, 0.038]), (Young Sample: -1 SD; SE = -0.001; 95% CI = [-0.087, -0.108]). The model predicts that the indirect effect of age diversity on well-being through the mediator becomes less negative as age stereotypes decrease. Therefore, we accept *H2b* for both samples.

Group identification

The following analysis aims to examine all paths in the model below (Figure 7). To do so, we followed the same approach as before and estimated two multiple regression models (Table 10) and the standardized conditional indirect effects (Table 11) for both samples.

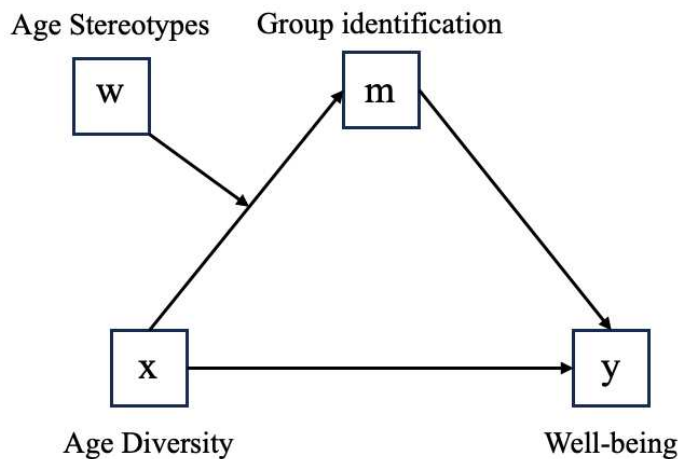


Figure 7: Theoretical moderated mediation model: Group identification as the mediator

In the first regression model (Table 10), group identification is the dependent variable, and age diversity and age stereotypes are the independent variables. Control variables include gender, proximity, leadership, and age. Additionally, an interaction term is included in the regression model to assess the moderating effect of age stereotypes. The multiple regression analysis shows that among the crucial variables considered, none has a statistically significant impact on our dependent variable, group identification. Since we do not find a significant relationship between age diversity and group identification, nor a moderating effect of the level of age stereotypes, we do not support *H3a* within the scope of this analysis as we cannot find significant evidence for a moderating effect of age stereotypes for either sample.

The second multiple regression model (Table 10) captures the mediating effect of group identification on well-being since well-being is the dependent variable and group identification and age diversity are the independent variables. The same set of controlling variables was included in this model.

Table 10: Regression results for H3a and H3b (Whole & Young Sample)

Variable	Whole Sample				Young Sample			
	Group identification		Well-being		Group identification		Well-being	
	b	SE	b	SE	b	SE	b	SE
Gender	0.019	0.102	-0.022	0.017	0.145	0.141	-0.029	0.021
Leadership	0.299**	0.137	-0.034	0.023	0.390	0.277	-0.037	0.042
Proximity	0.478***	0.075	0.031**	0.013	0.567***	0.109	0.039**	0.016
Age	-0.001	0.005	-0.001	0.001	0.070*	0.038	-0.005	0.006
Age Diversity	0.076	0.209	-0.016	0.011	-0.132	0.326	-0.004	0.014
Age Stereotypes	-0.218	0.226			-0.336	0.316		
Interaction Term	-0.050	0.070			0.027	0.105		
Group identification			0.128***	0.011			0.124***	0.014
Constant	2.297***	0.733	0.166***	0.061	0.430	1.335	0.244	0.158
Adjusted R2	0.533		0.658		0.520		0.680	

Note. Unstandardized regression coefficients are presented in all regression tables. Gender coded as 0 for male and 1 for female. Leadership is coded as 0 for no leadership role and 1 leadership role; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

The results demonstrate a significant positive relationship between group identification and well-being, with a coefficient of 0.128 ($p < 0.01$) for the whole sample and 0.124 ($p < 0.01$) for the young sample, reflecting that higher levels of group identification are associated with better individual well-being. Age diversity shows no evidence of correlation with well-being in this model. To find further support for rejecting the hypotheses, conditional indirect effects and standardized conditional indirect effects (Table 11) are analyzed below. Three levels of the moderator (w) are used to test the indirect effect of age diversity on well-being through group identification, conditional on the level of age stereotypes. Nonparametric bootstrap confidence intervals were constructed with R (the number of bootstrap samples) = 2000 to test for significance.

Table 11: Summary of standardized conditional indirect effects: Group identification as the mediator

Paths and effects	Estimates	Standardized Estimates	95% confidence intervals
Whole Sample			
Lower age stereotypes (-1 SD)	-0.020	-0.235	[-0.235, 0.048]
Mean age stereotypes	-0.038	-0.265	[-0.265, -0.095]
Higher age stereotypes (+1 SD)	-0.055	-0.388	[-0.388, -0.150]
Index of moderated mediation	-0.019		[-0.042, 0.001]
Young Sample (<=29)			
Lower age stereotypes (-1 SD)	-0.024	-0.120	[-0.341, 0.137]
Mean age stereotypes	-0.041	-0.206	[-0.338, -0.069]
Higher age stereotypes (+1 SD)	-0.058	-0.292	[-0.478, -0.127]
Index of moderated mediation	-0.020		[-0.058, 0.012]

Table 11 shows that although there seems to be a moderated mediation when age stereotypes are one standard deviation above the mean (Whole Sample: +1 SD; SE = -0.388; 95% CI = [-0.388, -0.150]), (Young Sample: +1 SD; SE = -0.292; 95% CI = [-0.478, -0.127]), the index of moderated mediation is not significant for either the whole sample or the young sample. Therefore, *H3b* cannot be supported by our results.

Table 12: Hypotheses Results Summary

Results Summary		
H1a	<i>The relationship between age diversity and creativity is moderated by the level of age stereotypes. The more negative age stereotypes individuals hold, the weaker the positive relationship between age diversity and creativity.</i>	Rejected*
H1b	<i>Age stereotypes moderate the indirect effect of age diversity on individual well-being via creativity such that the indirect effect is negative and stronger when age stereotypes are more pronounced.</i>	Partly Accepted**
H2a	<i>The relationship between age diversity and communication is moderated by the level of age stereotypes. The more negative age stereotypes individuals hold, the stronger the negative relationship between age diversity and communication.</i>	Partly Accepted***
H2b	<i>Age stereotypes moderate the indirect effect of age diversity on individual well-being via communication such that the indirect effect is negative and stronger when age stereotypes are more pronounced.</i>	Accepted
H3a	<i>The relationship between age diversity and group identification is moderated by the level of age stereotypes. The more negative age stereotypes individuals hold, the stronger the negative relationship between age diversity and group identification.</i>	Rejected*
Hb3	<i>Age stereotypes moderate the indirect effect of age diversity on individual well-being via group identification such that the indirect effect is negative and stronger when age stereotypes are more pronounced.</i>	Rejected

* The interaction term for the effect was not significant

** The data shows only support for a moderated mediation effect in the young sample

*** Data supports a moderated mediation, but the direction of the relationship between age diversity and communication was contrary to what was predicted

5. Discussion

The purpose of this research was to determine how age diversity affects individual well-being through different mediators and how this relationship is moderated by age stereotypes. Three sets of hypotheses were developed to test this complex moderated mediation effect. Our analysis reveals that age diversity per se does not have a significant detrimental effect on individual well-being. However, results show that some individual-level perceptions are affected by the composition of age diverse teams. The results for each of the mediators are discussed below. We then comment on the theoretical and managerial implications of this study, as well as limitations and future research directions.

5.1 Creativity

Our results suggest that age stereotypes do not significantly alter the relationship between age diversity and creativity, either for the overall sample or for the young sample. It seems likely that individual levels of creativity may be more influenced by other factors, such as personal motivation, skills, or the nature of the task, rather than by age diversity (Sternberg & Lubart, 1996; Amabile, 1996; Woodman et al., 1993). In addition, our methods for measuring age stereotypes may not be sensitive enough to capture the nuances of how these stereotypes affect creativity. For the mediator creativity, we found that it does not carry much of the effect that age diversity has on individual's experienced well-being when looking at the full sample. However, we find that the moderated mediation effect is valid for the young sample. We were able to confirm that the indirect negative effect of age diversity on well-being is mediated by individual creativity for younger employees.

We also found a stronger negative coefficient of age stereotypes and age diversity on creativity for the young sample. Possible reasons why the effect may be more significant for the young sample is that younger employees may be more sensitive to age diversity, especially when it is associated with negative stereotypes. This sensitivity may affect how they interact in the workplace, their willingness to share and develop creative ideas, and how they perceive their own creativity levels (Siegel & Kaemmerer, 1978). Consistent with this, we find a positive relationship between age diversity and creativity for the full sample but a negative relationship for the young sample. Although we suspected a positive association for both samples because the literature suggests that creativity may thrive under diversity (Payne, 1990; Cox, 1993; Blaise, 2008), our data does not fully support this. Younger workers may face challenges in benefiting from the creative advantages of age diversity. Due to their relatively limited work experience, younger workers may find it difficult to integrate and adapt to perspectives that are significantly different from their own (Siegel & Kaemmerer, 1978). This, coupled with the age stereotypes that younger people are more likely to hold, can affect their ability to effectively manage and leverage the complexities associated with a diverse age group (Liebermann, 2016). However, the overall analysis suggests that creativity is only marginally affected by the levels of age diversity individuals hold. We cannot find clear support that age diversity affects the level of perceived creativity of individuals. One reason for this may be that individuals in our sample do not work in industries where creativity is required as a typical skill. If the daily tasks being performed by our participants are not inherently creative or do not require creative input, the effect of age diversity on creativity may not be as visible. Furthermore, measuring creativity

at the individual level, as opposed to the group level, may be a significant factor in the observed results of this study. Creativity in a team context is often a synergistic phenomenon resulting from the interactions and collaborative efforts of the group rather than the sum of individual contributions (Baruah & Paulus, 2009). When creativity is measured as a group construct, it captures the collective intelligence and shared creativity that can result from diverse perspectives. However, when individuals are asked to self-assess their individual levels of creativity, their self-perceptions of creativity may be influenced by personal confidence, self-awareness, and the inability to observe the incremental benefits that diversity brings to group creativity. This methodological distinction may be another reason why, contrary to most of the literature, we found that age diversity appears to have a marginal negative effect on the perceived levels of creativity. Bearing in mind that the results are not significant, the result must be treated with caution, and await further research to examine this dynamic.

5.2 Communication

Research has established a strong position that the presence of age diversity may intensify the problem of miscommunication and misunderstanding, as different age groups tend to have different communication styles and preferences in the use of communication tools (Zakaria, 2017). We were unable to confirm the negative relationship between age diversity and communication found in previous literature (Zakaria, 2017; Lipnack & Stamps, 2000). For both samples, we found a positive relationship between age diversity and communication. Most of the communication challenges in the literature refer to teams that rely entirely on virtual communication tools (Daft & Lengel, 1986). However, in our study, we also categorize individuals working in hybrid teams as virtual teamworkers, so even though we controlled for perceived proximity, it is likely that individuals who are not fully remote are clustered as virtual workers. Hybrid work models offer the benefits of face-to-face communication, such as nonverbal cues and more personal interaction, while still utilizing the flexibility of virtual tools (Mathieu, 2005). The combination could lead to better understanding and rapport between team members of different ages, thereby mitigating potential miscommunication issues. The discrepancy between our results and those of other researchers may be due to this, among other things. In addition, we find support for the hypothesis that age stereotypes moderate the relationship but incorrectly predicted the direction of the relationship between age diversity and communication. Because of the negative interaction term, our data confirms the assumption

that the more negative age stereotypes individuals hold, the weaker the positive effect of age diversity on communication. Our findings are consistent across the two samples. Our data confirms prior research that age stereotypes negatively impact communication as individuals who hold negative stereotypes among their peers tend to be less open minded for successful communication (Hummert et al., 2004). We also found that the indirect effect of age diversity on well-being through communication becomes less positive as age stereotypes decrease. This implies that the moderated mediation effect is supported by our data.

5.3 Group identification

Our results show no significant correlation between age diversity and group identification for either the overall sample or the young sample. This suggests that the presence of different age groups in a team does not influence how strongly individuals identify with the group. There could be several reasons for this, such as an underlying organizational culture that compensates for age differences or the possibility that factors other than age, such as shared goals or values, play a more important role in promoting group identification (Chatman & O'Reilly, 2004; Schein 2010). In addition, other diversity factors may contribute more to group identification than age. Factors such as gender (Bear & Woolley, 2011), ethnicity (Cox & Blake, 1991), and educational background (Van Knippenberg et al., 2004) have been shown to be highly relevant to individual behavior and team dynamics. Our findings suggest that age as a diversity factor is not influential in group identification, leaving room for further research on other diversity factors. The virtual workplace environment may be another reason to explain the results, as traditional cues and interactions that typically highlight age differences may be less pronounced (Cramton, 2001). In virtual settings, the emphasis shifts significantly towards the content of communication and proficiency with digital tools (Hertel et al., 2005). Since we find that age diversity enhances communication among age-diverse members, it is likely that this could foster a sense of unity and shared purpose. Furthermore, virtual settings inherently provide a level of anonymity, that fosters an atmosphere in which judgments and evaluations are more likely to be based on ideas and contributions, rather than on age related differences (Martins et al., 2004). Overall, our study suggests that age diversity and stereotypes do not significantly affect group identification in work teams, either in the general population or in young cohorts. This finding challenges the assumption that age-related factors are primary determinants of group cohesion and identity in the workplace (Haas, 2010; Riordan, 2000). It underscores the

need for further research to understand the nuanced ways in which age diversity interacts with group dynamics and to explore other factors that may more significantly influence group identification.

5.4 Effects on well-being

We were able to confirm that communication, creativity, and group identification increase well-being regardless of the level of age stereotypes, showing their importance for successful collaboration and well-being in virtual teams. Research has previously shown that communication has a significant impact on the perceived well-being of individual team members, as successful communication fosters transparency, trust, and mutual understanding among team members (Jarvenpaa & Leidner, 1998). Open and clear communication helps minimize misunderstandings and conflicts, resulting in a more harmonious work environment that can increase their sense of belonging and, ultimately, their well-being (Hinds & Mortensen, 2005). Creativity in the workplace goes beyond simply generating innovative ideas. It gives team members a sense of purpose and engagement. When individuals feel encouraged to think creatively, they feel valued and experience higher levels of creativity (Acar et al., 2021; Amabile et al., 2005). Strong group identification creates a sense of belonging and community within the team. When individuals strongly identify with their work group, they experience a sense of shared purpose and collective accomplishment, which is positively associated with individual well-being (Hogg, 2016). This highlights the importance of considering individual-level perceptions when studying individual well-being in virtual teams.

5.5 Theoretical Implications

Our research makes several important theoretical contributions to the literature on age diversity and individual well-being in virtual teams. It emphasizes the importance of focusing on individual-level perceptions, especially in the context of virtual teams, to understand the factors that lead to individual well-being. It highlights that individual perceptions of creativity, communication, and group identification contribute significantly to well-being. This emphasis on individual-level analysis provides a nuanced perspective because it offers a new lens for understanding the dynamics of diversity in virtual teams and how it affects the subjective well-being of team members, rather than focusing on performance and effectiveness (Harrison et al.,

2002; Roberson, 2019; Horwitz & Horwitz, 2007). Our study also contributes to the theoretical understanding of how age diversity influences virtual teamwork. Traditionally, research on age diversity has primarily focused on physical work environments (Harter et al., 2003; Danna & Griffin, 1999; De Simone, 2014). By examining virtual teams, this research provides insights into how age diversity manifests in environments where physical cues and face-to-face interactions are limited. This adds a new dimension to the literature on age diversity, highlighting the need to consider the unique dynamics of virtual communication and collaboration. The findings regarding the differential impact of age diversity on different age groups, particularly the negative association for younger team members, contribute to a more refined understanding of age-related dynamics. This suggests that age diversity is not a monolithic concept but is perceived and experienced differently by different age groups, influenced by factors such as age stereotypes. Furthermore, drawing from the insights provided by Horwitz & Horwitz (2007), we recognize that team diversity goes beyond age and encompasses additional factors such as gender, ethnicity, and education, which presents a more complex approach to understanding team dynamics. Due to its complexity, it inherently presents both positive and negative outcomes for teams (Jackson et al., 2003). Our study contributes to the understanding of the complexity of team diversity because we found that the impact of age diversity on individual well-being is highly contextual. This suggests the need to explore other factors of diversity that may be more influential on team dynamics and individual well-being. By finding that age stereotypes do not significantly alter the relationship between age diversity and creativity or group identification, the research challenges some existing assumptions (Payne, 1990; King & Anderson, 1990; Woodman et al., 1993; Haas, 2010; Chattopadhyay, 2004). This implies that the effects of age stereotypes may be more complex and context dependent than previously thought and calls for further investigation into how these stereotypes are formed, maintained, and can be changed in virtual environments.

5.6 Managerial Implications

The present study provides important practical insights for managers and individuals alike, as the results of this study provide useful guidance on how to promote individual well-being in virtual teams. First, our research shows that it is extremely important to examine individual-level perceptions, as opposed to team-level outcomes, when analyzing the effects that lead to individual well-being in virtual teams. The research supports that individual's perceived levels

of creativity, communication, and group identification are all highly relevant to their well-being and are not as influenced by age diversity and stereotypes as initially expected. It is important to understand that, in many cases, age diversity does not in itself influence perceptions at the individual level. As a result, efforts to foster a supportive environment for individual creativity, quality communication, and a unified sense of belonging are critical to employee well-being. Our advice is to focus on fostering these rather than creating an age-homogeneous workforce to promote well-being. Second, the data suggests that younger employees tend to hold higher levels of age stereotypes and are therefore more likely to experience negative outcomes from working in age diverse teams. Thus, for younger employees the age composition of teams is more critical than for older employees. Third, we found that only communication was significantly influenced by age diversity and age stereotypes for the total sample. Consequently, we advise making efforts to reduce age stereotypes within working teams, especially among younger members, as successful communication is necessary not only for successful collaboration but also so that employees can experience higher levels of well-being. Since mere contact with members of the stereotyped group does not reduce stereotypes (Brown & Hewstone, 2005), measures must go beyond the boundaries of the team. An underlying organizational culture that promotes tolerance and mutual acceptance has been shown to be the most effective in reducing stereotypes. Providing information about different age groups that contradicts age stereotypes (Hewstone & Hamberger, 2000) can further reduce stereotypes and promote successful communication among all members. Fourth, we found that age diversity and stereotypes were more pronounced in virtual teams than in face-to-face teams. Managers of those specific teams should undertake specific actions to foster team building and cohesion to reduce perceived differences. Virtual meet-and-greets, shared online team challenges, or collaborative projects that require input from team members of different ages can bridge age differences and promote understanding and empathy among team members (Sarker et al., 2003). In addition, our findings suggest that, on average, individuals experience lower levels of creativity, communication, and group identification, underscoring the importance of taking specific steps to promote individual-level perceptions in virtual teams.

5.7 Limitations and Directions for Future Research

As with any piece of research, there are also several limitations to this study that need to be addressed in future research. First, although Field and colleagues (2012) suggest a minimum

sample size of “104 + the number of predictors” and we exceed this requirement with 202 participants, our sample is relatively small to test such a complex moderated mediation model. Because moderator effects are difficult to detect (Evans et al., 1985), we suggest that our analysis be replicated with a larger sample to achieve greater statistical significance. In addition, we recommend reanalyzing our findings in a setting that compares younger employees to older employees. Given that we found evidence that younger workers are more affected by age diversity because, on average, they hold higher levels of age stereotypes, we emphasize the importance of testing the model with older workers in a larger sample for future research to better understand the differences in the effect between younger and older workers. Second, although the present study advances our understanding of the impact of diversity on individual well-being in virtual teams in several important ways, it cannot address all of the relevant issues, and much work remains to be done. For example, we found relatively little evidence for a moderating effect of age stereotypes. Future research could extend our work by considering nonlinear relationships and a range of different moderators and mediators (Haas, 2010). For example, the nature of tasks, conflicts and other factors that could mediate the relationship between age diversity and individual well-being could be included (Van Knippenberg et al., 2004). Third, the form of measurement chosen for this study may be another reason to explain some of the variance in our results. The data used in this study is self-reported, which can be subject to bias if participants fail to identify their true motivations (Bollen & Paxton, 1998) or misinterpret the survey questions. Validity may not be fully assured this way, although researchers note that age diversity (Harrison & Klein, 2007), creativity (Runco, 2005), and well-being (Layard, 2010), in particular, can be effectively measured using subjective measures. Our findings await further empirical testing in longitudinal studies. Group dynamics and their effects on individual-level perceptions and well-being, have been shown to change over time (Wilson et al., 2006). In our study, we did not analyze team tenure, so we cannot control for differences over time. Fourth, due to the correlational nature of our study, we cannot draw definitive causal inferences. Therefore, we recommend that future research replicate our model using an experimental design. In this way, one could control for other components of diversity, such as ethnic background, gender, and values, etc. Due to the current design of the study, we cannot prove that the overall age diversity challenges we identified, particularly in communication, are caused solely by differences in the age of team members and not by other components of diversity. Fifth, our sample may not be representative of the broader population. This limits the generalizability of our findings to other contexts. As our sample consists mainly of relatively young participants with a German background, it shows a high degree of

homogeneity. Future research should replicate our findings in different socioeconomic, political, and cultural settings, as culture is likely to shape the image of older workers and aging in general (Chiu et al., 2001) and therefore has a strong influence on the level of age stereotypes that individuals hold. We welcome future research to replicate our findings with more representative samples.

6. Conclusion

This dissertation significantly advances the understanding of age diversity and age stereotypes in virtual teams, providing valuable insights into their impact on individual well-being, creativity, communication, and group identification. By shifting the focus from general team dynamics and external factors to a deeper examination of internal group dynamics and individual-level perceptions in virtual work environments, it fills a critical gap in the existing literature.

The primary finding of this study is that individual-level perceptions are highly relevant to the well-being of individuals in virtual teams. We found that high levels of creativity, communication, and group identification promote individual well-being. This is a critical finding to address the well-known challenges of virtual team workers, such as loneliness and depression (Galanti et al., 2021; Johnson et al., 2020). It fills a gap in the existing literature, which typically analyzes how external conditions affect well-being in order to better understand the conditions that lead to well-being in virtual teams. Our research challenges conventional assumptions about the role of age diversity in virtual teams. One of the most notable findings of this study is that age diversity was found to have a positive impact on communication, contradicting previous studies that have often highlighted the potential for miscommunication and misunderstanding in age diverse settings (Rosen et al., 2006). We also found that this positive relationship is tempered by the presence of age stereotypes, particularly among younger workers, suggesting that these stereotypes may dampen the positive effects of diversity on communication. However, for creativity and group identification we were unable to demonstrate that they are influenced by age diversity. Contrary to what might be expected from the existing literature (Blaise et al., 2008), this study found that age diversity did not significantly affect creativity in the overall sample. This suggests that other factors, perhaps individual characteristics, or the nature of the task, may play a more influential role in driving individual creativity in virtual teams. However, a moderated mediation effect was observed in the younger sample, suggesting that age diversity, when combined with age stereotypes, has a

significant impact on creativity among younger employees. This finding highlights the different ways in which age diversity affects different age groups within virtual teams, and points to the unique challenges that younger team members face in age diverse environments. In addition, our study found no significant evidence for the influence of age diversity and stereotypes on group identification, suggesting that the sense of belonging within a team may not be as strongly influenced by age factors as previously thought (Haas, 2010). This finding is particularly relevant for virtual teams, where physical separation might be expected to amplify the effects of demographic differences.

These findings contribute to the understanding of age diversity in the modern digital workplace. They highlight the need for a more individual-focused approach to studying team dynamics, particularly in virtual settings where traditional physical and social cues are absent. This research underscores the importance of considering how age diversity and stereotypes are perceived and experienced by different age groups. This study suggests that fostering individual creativity, improving communication, and actively addressing age stereotypes, especially among younger team members, are critical to enhancing individual well-being. Due to the limitations of the current study, further research is needed on age diversity and age stereotypes and their potential impact on various individual-level outcomes.

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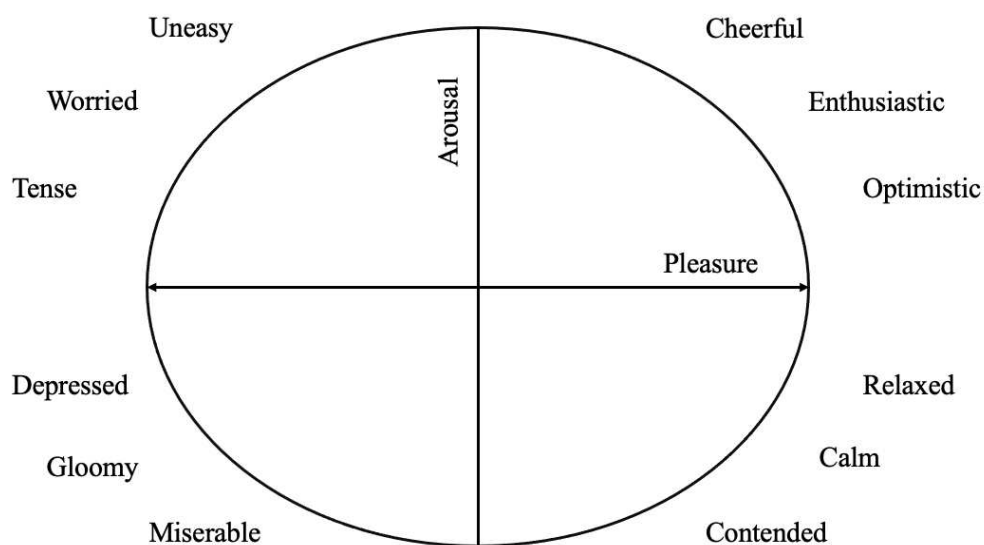
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Appendix

Appendix 1: The circumplex model of affect (based on Warr, 1990)	XVII
Appendix 2: Descriptive statistics (Whole Sample)	XVIII
Appendix 3: Descriptive statistics (Young Sample).....	XVIII
Appendix 4: Regression results for H1a (Whole Sample)	XIX
Appendix 5: Regression results for H1a (Young Sample)	XIX
Appendix 6: Regression results for H1b (Whole Sample).....	XX
Appendix 7: Regression results for H1b (Young Sample)	XX
Appendix 8: Regression results for H2a (Whole Sample)	XXI
Appendix 9: Regression results for H2a (Young Sample)	XXI
Appendix 10: Regression results for H2b (Whole Sample).....	XXII
Appendix 11: Regression results for H2b (Young Sample)	XXII
Appendix 12: Regression results for H3a (Whole Sample)	XXIII
Appendix 13: Regression results for H3a (Young Sample)	XXIII
Appendix 14: Regression results for H3b (Whole Sample).....	XXIV
Appendix 15: Regression results for H3b (Young Sample).....	XXIV
Appendix 16: T-Test Virtual Team vs Non-Virtual Team.....	XXV
Appendix 17: T-Test for Well-being in Virtual Team vs Non-Virtual Team	XXV

Appendix 1: The circumplex model of affect (based on Warr, 1990)



Appendix 2: Descriptive statistics (Whole Sample)

Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Median	Max
Leadership	202	0.238	0.427	0	0	1
Gender	202	0.520	0.501	0	1	1
Age	202	33.649	12.485	20	27	62
Proximity	202	3.203	0.961	1.250	3.438	5.000
Age.Diversity	202	2.950	0.950	1	3	4
Age.Stereotypes	202	2.940	0.905	1.000	2.800	5.000
Creativity	202	3.483	0.893	1.000	3.667	5.000
Communication	202	3.111	0.812	1.000	3.400	4.000
Group.identification	202	3.009	1.030	1.000	3.000	5.000
Well.being	202	0.562	0.196	0.083	0.579	0.939
Affect	202	3.394	1.086	1.000	3.667	5.333
SWLS	202	4.828	1.234	1.000	5.000	7.000
Job_Satisfaction	202	4.423	1.449	1.250	4.500	7.000

Appendix 3: Descriptive statistics (Young Sample)

Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Median	Max
Leadership	119	0.067	0.251	0	0	1
Gender	119	0.597	0.493	0	1	1
Age	119	24.580	1.834	20	24	29
Proximity	119	3.159	1.019	1.250	3.350	5.000
Age.Diversity	119	2.908	0.983	1	3	4
Age.Stereotypes	119	3.087	0.872	1.000	3.200	5.000
Creativity	119	3.532	0.937	1.000	3.667	5.000
Communication	119	3.092	0.806	1.000	3.400	4.000
Group.identification	119	2.899	1.068	1.000	3.000	5.000
Well.being	119	0.561	0.195	0.125	0.561	0.939
Affect	119	3.391	1.105	1.083	3.667	5.333
SWLS	119	4.901	1.168	2.000	5.000	7.000
Job_Satisfaction	119	4.326	1.464	1.250	4.000	7.000

Appendix 4: Regression results for H1a (Whole Sample)

Dependent variable:							
Creativity							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
`Age Diversity`	-0.265*** (0.064)	-0.158** (0.067)	-0.142** (0.067)	-0.142** (0.067)	-0.142** (0.068)	-0.007 (0.074)	0.023 (0.238)
`Age Stereotypes`		-0.287*** (0.070)	-0.324*** (0.074)	-0.323*** (0.074)	-0.323*** (0.074)	-0.170** (0.081)	-0.138 (0.257)
Age			-0.008 (0.005)	-0.008 (0.005)	-0.008 (0.006)	-0.009 (0.006)	-0.009 (0.006)
Gender				0.035 (0.119)	0.036 (0.120)	0.029 (0.116)	0.029 (0.116)
Leadership					0.008 (0.161)	0.040 (0.155)	0.040 (0.156)
Proximity						0.331*** (0.084)	0.329*** (0.086)
`Age Diversity`:`Age Stereotypes`							-0.010 (0.080)
Constant	4.266*** (0.198)	4.793*** (0.230)	5.118*** (0.306)	5.087*** (0.324)	5.091*** (0.335)	3.225*** (0.573)	3.146*** (0.833)
Observations	202	202	202	202	202	202	202
R2	0.080	0.151	0.162	0.162	0.162	0.224	0.224
Adjusted R2	0.075	0.143	0.149	0.145	0.141	0.200	0.196
Residual Std. Error	0.859	0.827	0.823	0.825	0.827	0.798	0.800
F Statistic	17.337***	17.730***	12.769***	9.554***	7.605***	9.400***	8.019***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 5: Regression results for H1a (Young Sample)

Dependent variable:							
Creativity							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
`Age Diversity`	-0.323*** (0.083)	-0.184* (0.093)	-0.184* (0.094)	-0.183* (0.094)	-0.177* (0.095)	-0.006 (0.103)	-0.202 (0.366)
`Age Stereotypes`		-0.307*** (0.105)	-0.314*** (0.106)	-0.311*** (0.107)	-0.316*** (0.108)	-0.097 (0.121)	-0.283 (0.355)
Age			0.025 (0.044)	0.026 (0.044)	0.030 (0.045)	0.025 (0.043)	0.025 (0.043)
Gender				0.056 (0.163)	0.058 (0.163)	0.010 (0.157)	-0.003 (0.159)
Leadership					-0.192 (0.324)	-0.130 (0.310)	-0.129 (0.311)
Proximity						0.402*** (0.117)	0.422*** (0.123)
`Age Diversity`:`Age Stereotypes`							0.066 (0.118)
Constant	4.471*** (0.254)	5.015*** (0.309)	4.416*** (1.081)	4.357*** (1.098)	4.251*** (1.116)	1.973 (1.255)	2.425 (1.498)
Observations	119	119	119	119	119	119	119
R2	0.115	0.175	0.178	0.178	0.181	0.259	0.261
Adjusted R2	0.107	0.161	0.156	0.150	0.145	0.220	0.215
Residual Std. Error	0.885	0.858	0.861	0.864	0.867	0.828	0.830
F Statistic	15.163***	12.322***	8.280***	6.192***	4.996***	6.537***	5.613***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 6: Regression results for H1b (Whole Sample)

Dependent variable:						
	`Well-being`					
	(1)	(2)	(3)	(4)	(5)	(6)
Creativity	0.119*** (0.013)	0.098*** (0.013)	0.098*** (0.012)	0.099*** (0.012)	0.098*** (0.012)	0.070*** (0.012)
`Age Diversity`		-0.071*** (0.012)	-0.071*** (0.012)	-0.071*** (0.012)	-0.070*** (0.012)	-0.027** (0.013)
Age			0.002** (0.001)	0.002* (0.001)	0.002* (0.001)	0.001 (0.001)
Gender				-0.018 (0.022)	-0.019 (0.022)	-0.021 (0.020)
Leadership					-0.011 (0.029)	0.0005 (0.027)
Proximity						0.087*** (0.014)
Constant	0.148*** (0.047)	0.431*** (0.064)	0.369*** (0.070)	0.382*** (0.072)	0.377*** (0.073)	0.113 (0.079)
Observations	202	202	202	202	202	202
R2	0.293	0.402	0.415	0.417	0.418	0.517
Adjusted R2	0.290	0.396	0.406	0.405	0.403	0.502
Residual Std. Error	0.165	0.153	0.151	0.151	0.152	0.138
F Statistic	83.069***	66.767***	46.879***	35.274***	28.126***	34.821***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 7: Regression results for H1b (Young Sample)

Dependent variable:						
	`Well-being`					
	(1)	(2)	(3)	(4)	(5)	(6)
Creativity	0.116*** (0.016)	0.092*** (0.016)	0.092*** (0.016)	0.092*** (0.016)	0.092*** (0.016)	0.059*** (0.015)
`Age Diversity`		-0.067*** (0.015)	-0.067*** (0.015)	-0.067*** (0.015)	-0.067*** (0.015)	-0.013 (0.017)
Age			-0.001 (0.008)	-0.0005 (0.008)	-0.001 (0.008)	0.001 (0.007)
Gender				0.006 (0.029)	0.006 (0.029)	-0.010 (0.026)
Leadership					0.027 (0.057)	0.026 (0.051)
Proximity						0.097*** (0.018)
Constant	0.151** (0.058)	0.430*** (0.083)	0.443** (0.201)	0.437** (0.203)	0.452** (0.206)	0.070 (0.197)
Observations	119	119	119	119	119	119
R2	0.311	0.412	0.412	0.413	0.414	0.538
Adjusted R2	0.306	0.402	0.397	0.392	0.388	0.513
Residual Std. Error	0.162	0.151	0.151	0.152	0.152	0.136
F Statistic	52.922***	40.677***	26.887***	20.012***	15.946***	21.728***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 8: Regression results for H2a (Whole Sample)

Dependent variable:							
Communication							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
`Age Diversity`	-0.460*** (0.051)	-0.283*** (0.045)	-0.280*** (0.046)	-0.280*** (0.046)	-0.285*** (0.047)	-0.108** (0.045)	0.355** (0.140)
`Age Stereotypes`		-0.473*** (0.048)	-0.478*** (0.050)	-0.479*** (0.050)	-0.481*** (0.051)	-0.280*** (0.049)	0.219 (0.151)
Age			-0.001 (0.003)	-0.002 (0.003)	-0.003 (0.004)	-0.005 (0.003)	-0.006* (0.003)
Gender				-0.065 (0.082)	-0.060 (0.082)	-0.069 (0.070)	-0.062 (0.068)
Leadership					0.086 (0.110)	0.128 (0.094)	0.129 (0.091)
Proximity						0.433*** (0.051)	0.399*** (0.050)
`Age Diversity`:`Age Stereotypes`							-0.163*** (0.047)
Constant	4.468*** (0.158)	5.335*** (0.156)	5.384*** (0.209)	5.441*** (0.221)	5.486*** (0.229)	3.045*** (0.347)	1.809*** (0.489)
Observations	202	202	202	202	202	202	202
R2	0.290	0.525	0.525	0.527	0.528	0.656	0.676
Adjusted R2	0.286	0.520	0.518	0.517	0.516	0.646	0.665
Residual Std. Error	0.686	0.562	0.564	0.564	0.565	0.483	0.470
F Statistic	81.652***	109.875***	72.967***	54.784***	43.862***	62.010***	57.937***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 9: Regression results for H2a (Young Sample)

Dependent variable:							
Communication							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
`Age Diversity`	-0.479*** (0.062)	-0.255*** (0.059)	-0.255*** (0.059)	-0.254*** (0.060)	-0.249*** (0.060)	-0.068 (0.059)	0.460** (0.201)
`Age Stereotypes`		-0.495*** (0.067)	-0.494*** (0.067)	-0.490*** (0.068)	-0.494*** (0.068)	-0.261*** (0.069)	0.241 (0.195)
Age			-0.004 (0.028)	-0.003 (0.028)	0.001 (0.028)	-0.006 (0.024)	-0.007 (0.023)
Gender				0.065 (0.103)	0.066 (0.103)	0.015 (0.089)	0.049 (0.087)
Leadership					-0.151 (0.205)	-0.084 (0.176)	-0.088 (0.171)
Proximity						0.429*** (0.066)	0.376*** (0.067)
`Age Diversity`:`Age Stereotypes`							-0.177*** (0.065)
Constant	4.485*** (0.189)	5.362*** (0.196)	5.451*** (0.685)	5.384*** (0.695)	5.300*** (0.705)	2.870*** (0.711)	1.648** (0.823)
Observations	119	119	119	119	119	119	119
R2	0.341	0.554	0.554	0.555	0.557	0.678	0.698
Adjusted R2	0.335	0.546	0.542	0.540	0.538	0.661	0.679
Residual Std. Error	0.657	0.543	0.545	0.547	0.548	0.469	0.456
F Statistic	60.576***	71.965***	47.577***	35.593***	28.468***	39.305***	36.706***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 10: Regression results for H2b (Whole Sample)

Dependent variable:						

	`Well-being`					
	(1)	(2)	(3)	(4)	(5)	(6)

Communication	0.175*** (0.012)	0.160*** (0.014)	0.159*** (0.014)	0.159*** (0.014)	0.160*** (0.014)	0.128*** (0.018)
`Age Diversity`		-0.023* (0.012)	-0.023* (0.012)	-0.024* (0.012)	-0.022* (0.012)	-0.012 (0.013)
Age			0.0003 (0.001)	0.0003 (0.001)	0.001 (0.001)	0.0002 (0.001)
Gender				-0.006 (0.020)	-0.008 (0.020)	-0.011 (0.019)
Leadership					-0.020 (0.026)	-0.012 (0.026)
Proximity						0.043*** (0.016)
Constant	0.018 (0.038)	0.131* (0.069)	0.125* (0.071)	0.131* (0.074)	0.120 (0.075)	0.063 (0.077)

Observations	202	202	202	202	202	202
R2	0.523	0.532	0.533	0.533	0.534	0.550
Adjusted R2	0.521	0.527	0.525	0.523	0.522	0.536
Residual Std. Error	0.136	0.135	0.135	0.136	0.136	0.134
F Statistic	219.570***	113.148***	75.178***	56.154***	44.937***	39.769***

Note:	*p<0.1; **p<0.05; ***p<0.01					

Appendix 11: Regression results for H2b (Young Sample)

Dependent variable:						

	`Well-being`					
	(1)	(2)	(3)	(4)	(5)	(6)

Communication	0.166*** (0.016)	0.148*** (0.020)	0.149*** (0.020)	0.149*** (0.020)	0.149*** (0.020)	0.093*** (0.026)
`Age Diversity`		-0.026 (0.016)	-0.026 (0.016)	-0.026 (0.016)	-0.026 (0.016)	-0.005 (0.017)
Age			0.004 (0.007)	0.004 (0.007)	0.004 (0.007)	0.003 (0.007)
Gender				-0.004 (0.027)	-0.005 (0.027)	-0.011 (0.026)
Leadership					0.021 (0.053)	0.021 (0.051)
Proximity						0.072*** (0.022)
Constant	0.047 (0.052)	0.179* (0.098)	0.068 (0.205)	0.071 (0.206)	0.082 (0.209)	-0.019 (0.203)

Observations	119	119	119	119	119	119
R2	0.474	0.485	0.486	0.487	0.487	0.532
Adjusted R2	0.469	0.476	0.473	0.468	0.465	0.507
Residual Std. Error	0.142	0.141	0.141	0.142	0.142	0.137
F Statistic	105.238***	54.558***	36.303***	27.003***	21.476***	21.213***

Note:	*p<0.1; **p<0.05; ***p<0.01					

Appendix 12: Regression results for H3a (Whole Sample)

Dependent variable:							
	`Group identification`						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
`Age Diversity`	-0.469*** (0.069)	-0.238*** (0.063)	-0.249*** (0.063)	-0.249*** (0.064)	-0.265*** (0.064)	-0.065 (0.065)	0.076 (0.209)
`Age Stereotypes`		-0.617*** (0.066)	-0.591*** (0.069)	-0.591*** (0.070)	-0.596*** (0.069)	-0.370*** (0.072)	-0.218 (0.226)
Age			0.005 (0.005)	0.005 (0.005)	0.001 (0.005)	-0.001 (0.005)	-0.001 (0.005)
Gender				0.011 (0.113)	0.027 (0.113)	0.017 (0.102)	0.019 (0.102)
Leadership					0.251* (0.151)	0.298** (0.137)	0.299** (0.137)
Proximity						0.488*** (0.074)	0.478*** (0.075)
`Age Diversity`:`Age Stereotypes`							-0.050 (0.070)
Constant	4.393*** (0.214)	5.524*** (0.216)	5.302*** (0.288)	5.293*** (0.306)	5.425*** (0.314)	2.673*** (0.505)	2.297*** (0.733)
Observations	202	202	202	202	202	202	202
R2	0.187	0.436	0.439	0.439	0.447	0.548	0.549
Adjusted R2	0.183	0.430	0.431	0.428	0.433	0.534	0.533
Residual Std. Error	0.931	0.778	0.777	0.779	0.776	0.703	0.704
F Statistic	46.106***	76.772***	51.717***	38.596***	31.711***	39.447***	33.797***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 13: Regression results for H3a (Young Sample)

Dependent variable:							
	`Group identification`						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
`Age Diversity`	-0.534*** (0.087)	-0.280*** (0.091)	-0.279*** (0.090)	-0.277*** (0.090)	-0.287*** (0.090)	-0.051 (0.092)	-0.132 (0.326)
`Age Stereotypes`		-0.561*** (0.103)	-0.583*** (0.102)	-0.570*** (0.102)	-0.562*** (0.102)	-0.258** (0.108)	-0.336 (0.316)
Age			0.083** (0.042)	0.085** (0.042)	0.078* (0.042)	0.070* (0.038)	0.070* (0.038)
Gender				0.221 (0.155)	0.218 (0.155)	0.151 (0.139)	0.145 (0.141)
Leadership					0.303 (0.308)	0.389 (0.276)	0.390 (0.277)
Proximity						0.559*** (0.104)	0.567*** (0.109)
`Age Diversity`:`Age Stereotypes`							0.027 (0.105)
Constant	4.452*** (0.268)	5.445*** (0.301)	3.467*** (1.037)	3.237*** (1.045)	3.405*** (1.059)	0.242 (1.117)	0.430 (1.335)
Observations	119	119	119	119	119	119	119
R2	0.242	0.397	0.417	0.427	0.432	0.548	0.549
Adjusted R2	0.235	0.386	0.402	0.407	0.407	0.524	0.520
Residual Std. Error	0.934	0.836	0.826	0.822	0.822	0.737	0.740
F Statistic	37.257***	38.157***	27.409***	21.253***	17.191***	22.659***	19.270***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 14: Regression results for H3b (Whole Sample)

Dependent variable:						
	`Well-being`					
	(1)	(2)	(3)	(4)	(5)	(6)
`Group identification`	0.151*** (0.008)	0.138*** (0.009)	0.141*** (0.009)	0.141*** (0.009)	0.142*** (0.009)	0.128*** (0.011)
`Age Diversity`		-0.032*** (0.010)	-0.030*** (0.010)	-0.030*** (0.010)	-0.027*** (0.010)	-0.016 (0.011)
Age			-0.001 (0.001)	-0.001 (0.001)	-0.0003 (0.001)	-0.001 (0.001)
Gender				-0.019 (0.017)	-0.021 (0.017)	-0.022 (0.017)
Leadership					-0.041* (0.023)	-0.034 (0.023)
Proximity						0.031** (0.013)
Constant	0.108*** (0.026)	0.240*** (0.047)	0.254*** (0.049)	0.269*** (0.051)	0.244*** (0.052)	0.166*** (0.061)
Observations	202	202	202	202	202	202
R2	0.629	0.648	0.651	0.653	0.658	0.668
Adjusted R2	0.627	0.645	0.645	0.646	0.650	0.658
Residual Std. Error	0.120	0.117	0.117	0.117	0.116	0.115
F Statistic	339.276***	183.484***	122.907***	92.577***	75.586***	65.394***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 15: Regression results for H3b (Young Sample)

Dependent variable:						
	`Well-being`					
	(1)	(2)	(3)	(4)	(5)	(6)
`Group identification`	0.148*** (0.010)	0.137*** (0.011)	0.139*** (0.011)	0.141*** (0.011)	0.143*** (0.011)	0.124*** (0.014)
`Age Diversity`		-0.023* (0.012)	-0.022* (0.012)	-0.021* (0.012)	-0.020 (0.012)	-0.004 (0.014)
Age			-0.007 (0.006)	-0.008 (0.006)	-0.007 (0.006)	-0.005 (0.006)
Gender				-0.027 (0.021)	-0.027 (0.021)	-0.029 (0.021)
Leadership					-0.046 (0.042)	-0.037 (0.042)
Proximity						0.039** (0.016)
Constant	0.132*** (0.030)	0.231*** (0.060)	0.402*** (0.146)	0.422*** (0.146)	0.392*** (0.149)	0.244 (0.158)
Observations	119	119	119	119	119	119
R2	0.658	0.668	0.673	0.677	0.681	0.696
Adjusted R2	0.655	0.662	0.664	0.666	0.666	0.680
Residual Std. Error	0.114	0.113	0.113	0.113	0.112	0.110
F Statistic	224.649***	116.717***	78.820***	59.810***	48.159***	42.735***

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 16: T-Test Virtual Team vs Non-Virtual Team

	T-Test		
	Virtual Team	Non-Virtual Team	p-value
Age Diversity	3.349057	2.510417	5.568e-11
Age Stereotypes	3.349057	2.487500	5.82e-13
Creativity	3.135220	3.868056	7.795e-10
Communication	2.660377	3.608333	2.2e-16
Group identification	2.459906	3.614583	2.2e-16
Well-being	0.4627358	0.6725116	2.2e-16

Appendix 17: T-Test for Well-being in Virtual Team vs Non-Virtual Team

	T-Test		
	Virtual Team	Non-Virtual team	p-value
Well-being	0.4627358	0.6725116	2.2e-16
Affect	2.893868	3.946181	1.596e-13
SWLS	4.424528	5.272917	4.897e-07
Job Satisfaction	3.632075	5.296875	2.2e-16