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Explaining Age Differences in the Motivating Potential of Intergenerational Contact at Work

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Abstract

Understanding the effects of intergenerational contact at work is important given aging and increasingly age-diverse workforces. The aim of this research was to better understand who derives motivational benefits from intergenerational contact, and the processes by which this occurs. To do so, we adopted a motivational lens grounded in need-based theories of work motivation and lifespan development theory. We argue that the motivating effect of intergenerational contact on work engagement via sense of belonging is more pronounced for older compared to younger employees due to changes in goal priorities across the lifespan. Specifically, we posit the generativity motive and perceived remaining time at work as lifespan-related mechanisms that explain the moderating effects of age on the links between intergenerational contact and work engagement. In Study 1, a laboratory experiment with 45 younger and 45 older participants in Switzerland, we found support for a causal effect of intergenerational contact on sense of belonging. In Study 2, a three-wave field study with 560 employees in Germany, we found that sense of belonging mediated the relation between intergenerational contact and work engagement. Further, perceived remaining time at work explained the moderating effect of age on the link between sense of belonging and work engagement. By highlighting age differences in the motivating potential of intergenerational contact, we advance research on intergroup contact, employee motivation, and workforce aging.

Keywords: workforce aging; intergenerational potential; life span development theory; intergroup contact theory; need-based theories of work motivation

Explaining Age Differences in the Motivating Potential of Intergenerational Contact at Work

Workforces in many countries are aging and becoming more age diverse due to demographic change (Boehm et al., 2014; Finkelstein et al., 2015; North, 2019). Increasing life expectancy and more flexible retirement policies (Wang & Shultz, 2010) lead to extended working lives of many older employees. Differences in employee age are thus becoming more pronounced within organizations (Meulenaere et al., 2016). Accordingly, intergenerational contact, defined as the extent to which coworkers from different age groups interact at work (King & Bryant, 2017), represents a relevant social characteristic of work in todays' aging and age-diverse workforces.

Research to date has clarified how intergenerational contact, as a form of intergroup contact among individuals from different age groups, can reduce negative attitudes and behavior toward other age groups (Abrams et al., 2006). Studies in the work context showed that intergenerational contact can reduce negative age stereotypes (Henry et al., 2015; Iweins et al., 2013) and buffer the effect of intergroup anxiety on discrimination in hiring (Fasbender & Wang, 2017). These findings are aligned with intergroup contact theory (Pettigrew, 1998), which argues that contact with dissimilar others improves intergroup relations. A plethora of studies showed that intergroup contact reduces prejudice and intergroup bias (Dovidio et al., 2017; Pettigrew & Tropp, 2000; Pettigrew & Tropp, 2008), improves outgroup attitudes (Aberson & Haag, 2007; Harwood et al., 2017; Pettigrew et al., 2011), and leads to positive outgroup behaviors such as helping (Johnston & Glasford, 2017). However, our understanding of the mechanisms and boundary conditions of the positive consequences of intergenerational contact at work are currently limited in two central ways.

First, existing research focused on the ways in which intergenerational contact may motivate positive intergroup relations, for example, by reducing age stereotypes and discrimination (Fasbender & Wang, 2017; Henry et al., 2015; Iweins et al., 2013), but

neglected the possible motivating potential of intergenerational contact for the focal individuals involved. This limited scope is surprising because we know that positive social contact at work can help employees to feel more connected, which, in turn, drives beneficial work-related outcomes such as employee motivation (Dutton & Ragins, 2007; Ehrhardt & Ragins, 2019; Heaphy & Dutton, 2008).

Second, studies on outcomes of intergenerational contact in the work context have not yet focused on the role of employee age, thereby assuming that the strength of the effect of intergenerational contact does not differ between age groups. For example, Henry et al. (2015) established age differences in antecedents of intergenerational contact, more specifically in the links between opportunities for generativity and development and intergenerational contact quality, while not exploring age differences in outcomes of intergenerational contact. In the same vein, research on intergroup contact has suggested that the positive effects on interpersonal relations are universal across age groups (Pettigrew et al., 2011). Based on lifespan development theory (e.g., Baltes, 1987; Carstensen et al., 1999; Erikson, 1963), we challenge this age-blind understanding for motivational outcomes of intergenerational contact, because goal priorities and motives change across the lifespan and these changes influence socioemotional work experiences (Kooij et al., 2011; Ng & Feldman, 2010; Rudolph, Kooij et al., 2018).

In addition, research questioning the validity of the notion of "generations" and the assertion of "generational differences" (Costanza & Finkelstein, 2015; Rudolph, Rauvola, & Zacher, 2018; Rudolph & Zacher, 2017b), influenced our research in two main ways. First, research has concluded that there is insufficient empirical evidence for objective generational differences, and recommended to adopt a lifespan development perspective to understand age-related phenomena (Rudolph & Zacher, 2017b). We follow this advice by adopting a lifespan perspective to examine the outcomes of intergenerational contact, which we understand as interactions between employees from different age groups (see King & Bryant, 2017).

Second, research has noted that while we lack empirical evidence for objective generational differences, people seem to attach meaning to the term generation and might use it to construct their sense of self when interacting with others (Joshi et al., 2010; Weiss & Lang, 2009). The subjective meaningfulness of the construct "generation" is reflected in the way we operationalize intergenerational contact as we ask participants to indicate how often they interact with coworkers "outside their generation."

To advance the literature on how to engage aging and age-diverse workforces, we adopt a motivational lens that is grounded in need-based theories of work motivation (Baumeister & Leary, 1995; Green, Finkel et al., 2017) and lifespan development theory (Carstensen et al., 1999; Erikson, 1963). We propose that the motivating effect of intergenerational contact on work engagement occurs via an increased sense of belonging, and that this effect is more pronounced for older compared to younger employees due to changes in goal priorities across the lifespan. We focus on work engagement (i.e., a positive state of mind that is characterized by vigor, dedication, and absorption; Schaufeli et al., 2002) as an important motivational outcome, due to its positive relations with job performance, productivity, and employee well-being (Bakker & Bal, 2010; Hakanen & Schaufeli, 2012; Rich et al., 2010; Xanthopoulou et al., 2009).

To understand why intergenerational contact has motivating potential and to decipher the proposed link between intergenerational contact and work engagement, we herein focus on sense of belonging (Baumeister & Leary, 1995). A sense of belonging is uniquely suited to explain the motivational outcomes of workplace interactions (Nifadkar & Bauer, 2016; O'Reilly & Robinson, 2009) because, according to Baumeister and Leary's theorizing, humans are fundamentally motivated by a need to belong and thus aim to feel connected. Contact with others can improve individuals' sense of belonging (i.e., achieved belongingness; Hagerty et al., 1992; Malone et al., 2012) which, in turn, makes them more

motivated to contribute (Green, Finkel et al., 2017). We thus expect a positive link between intergenerational contact and work engagement via sense of belonging.

Further, based on lifespan development theory (Carstensen et al., 1999; Erikson, 1963), we expect that older employees derive more pronounced motivational benefits from intergenerational contact due to their increased generativity motive (i.e., individuals' concern for establishing and guiding the next generation; Erikson, 1963; Kanfer & Ackerman, 2004) and constrained perceived remaining time at work (i.e., individuals' perception of their future in the employment context; Zacher & Frese, 2009). We argue that the opportunity to enact generativity during intergenerational contact is more closely aligned with older (vs. younger) employees' focus on generativity, and that the experience of sense of belonging is more closely aligned with older (vs. younger) employees' focus on socioemotional goals based on their constrained (vs. more expansive) perceived remaining time at work. We thus position employee age as a relevant boundary condition and further demonstrate why older and younger employees may differ in their reactions to intergenerational contact.

With our research, we aim to make two main contributions. First, we aim to contribute to an integration of research on intergroup contact and employee motivation (Kanfer et al., 2017). We advance research on intergenerational contact by examining work engagement as a motivational outcome and thereby extend the scope of current scholarship on intergroup contact that has mainly focused on overcoming negative attitudes and behavior toward other age groups (Fasbender & Wang, 2017; Henry et al., 2015; Iweins et al., 2013). We further decipher sense of belonging as a need-based mechanism (Baumeister & Leary, 1995) that translates the motivating potential of intergenerational contact into work engagement. In doing so, we explicate the need-fulfilling potential of intergenerational contact as a specific workplace interaction. We thus advance research on work engagement (Bakker et al., 2008; Bakker et al., 2011) and need-based theories of work motivation (Green, Finkel et al., 2017) by specifying how intergenerational contact can fuel the energy inherent in work engagement.

Second, we integrate the intergroup contact and lifespan development literature to examine differences across age groups. We do so by examining the moderating role of employee age in shaping the effect of intergenerational contact on work engagement. Demonstrating the different motivating potential of intergenerational contact for employees from different age groups challenges the age-blind view advanced in intergroup contact theory (Pettigrew et al., 2011) and suggests that contact domain-specific moderators (here: age) are relevant boundary conditions of specific types of intergroup contact (here: intergenerational contact). Further, we advance the workforce aging literature by simultaneously testing both positive (i.e., generativity motive) and negative age-related moderating mechanisms (i.e., perceived remaining time at work). We thus uncover the underlying mechanisms that explain why age acts as a moderator of motivational processes at work (see Bohlmann et al., 2018).

Theoretical Background

We adopt a motivational lens to further our understanding of the outcomes of intergenerational contact at work. This motivational lens is reflected in our theorizing in terms of the motivational processes that we propose to explain why intergenerational contact motivates work engagement and why employee age shapes the motivating potential of intergenerational contact. Figure 1 displays our conceptual model.

First, we draw on need-based theories of work motivation (Green, Finkel et al., 2017) to explain why intergenerational contact motivates work engagement. Need-based theories of work motivation propose that employees act because they aim to fulfill basic human needs (Latham & Pinder, 2005), such as belonging (Baumeister & Leary, 1995). According to Baumeister and Leary (1995), humans have a fundamental need to belong that they aim to fulfill through meaningful interactions with others. More recent work echoed the "motivational power of need fulfillment experiences" (Green, Finkel et al., 2017, p. 3), and emphasized that interactions with others at work are central for need fulfillment and

subsequent work engagement. Based on these insights, we propose that sense of belonging (i.e., experienced belonging) explains why intergenerational contact motivates work engagement. Research on intergenerational interactions outside of the workplace already indicated that both older adults and adolescents derive motivational benefits from interacting with each other (Kessler & Staudinger, 2007; Tabuchi & Miura, 2018).

Second, we build on lifespan development theory (Carstensen et al., 1999; Erikson, 1963) to propose that the motivating potential of intergenerational contact is more pronounced for older compared to younger employees due to lifespan-related changes in goal priorities. Lifespan development theories describe aging as a continuous and multidirectional process in which resource gains and losses go hand-in-hand, such that different psychological characteristics might either remain stable, increase, or decrease across the lifespan (Baltes, 1987). Two central psychological characteristics that are affected by the aging process are the generativity motive and perceptions of remaining time (Carstensen, 2006; Erikson, 1963). On average, the generativity motive increases with age (Kooij et al., 2011), while perceived remaining time at work decreases with age (Henry et al., 2017; Rudolph, Kooij et al., 2018). These lifespan-related changes in motives and perceptions of time influence individuals' goal priorities and interactions with their social environment. For example, investing time and effort into gaining knowledge and resources might be motivating for younger individuals who have an expansive future time perspective and can reap the benefits of their present investment in the future. Older workers however, with a constrained future time perspective, are more focused on enjoying the present and creating their legacy through enacting generativity in social relationships and sharing their knowledge with future generations (Hertel & Zacher, 2018; Lang & Carstensen, 2002).

Hypotheses Development

The Effect of Intergenerational Contact on Work Engagement via Sense of Belonging

Research shows that contact is beneficial for employees' sense of belonging. First, contact provides an opportunity to share and receive valued resources. Employees appreciate the opportunity to acquire resources, such as knowledge and skills, through social interactions (Kilduff & Brass, 2010; Lang & Carstensen, 2002). Further, employees enjoy contributing to others and being needed by others can lead to a sense of belonging (Hagerty et al., 1996). Second, contact enables employees to connect and relate to others and widen their social support network, which can fulfill their need for belonging (Ilies et al., 2018; Reich & Hershcovis, 2011; Wang & Eccles, 2012).

Intergenerational contact may be particularly beneficial for improving employees' sense of belonging. First, older and younger coworkers are highly effective in providing each other with support and assistance because their experiences, networks, and insights are non-redundant and often complementary (Burmeister et al., 2020; Gerpott et al., 2017; Li et al., in press). Older workers can help younger workers to understand how to interact with others in more meaningful ways to build long-lasting relationships (Gerpott et al., 2017), while younger workers can help older workers by demonstrating how to handle complexity and connect with a wider range of different people based on their larger social networks (Li et al., in press). Intergenerational contact thus provides access to resources and support that may otherwise be difficult to obtain because similarly aged peers are less likely possess these resources, and thereby facilitates a sense of belonging. Second, intergenerational contact provides employees with the opportunity to interact with an extended network of social contacts that supports and validates them (Shumaker & Brownell, 1984). These social interactions with dissimilar others may be perceived as signals of acceptance by a broad range of people and can lead to a sense of belonging because of the diversification of one's support network (Kunstman et al., 2013; Sandstrom & Dunn, 2014). In addition, employees who experience cooperative intergenerational interactions might feel more connected to others because they are treated as insiders by a different age group and are included in information flows they previously did not

have access to (see Shore et al., 2011; Shore et al., 2018). We thus expect that intergenerational contact leads to sense of belonging because employees feel connected through the exchange of valuable and non-redundant resources and perceive cooperative interactions with dissimilar others as signals of social acceptance (Keyes, 2002; Vondras et al., 2008).

Hypothesis 1a: Intergenerational contact is positively related to sense of belonging.

In turn, sense of belonging is positively related to work engagement. Sense of belonging may be particularly influential for work engagement because social interactions strongly influence employees' conceptualization of their work experience (Grant & Parker, 2009; Wrzesniewski et al., 2003). Specifically, feeling connected through social interactions can elicit positive emotional states that are energizing (Ehrhardt & Ragins, 2019; Green, Finkel et al., 2017). Accordingly, sense of belonging has been shown to motivate employees' work engagement, because employees derive intrinsic motivation from feeling connected to others (Kovjanic et al., 2013). As a result, employees' absorption in their work and the vigor and dedication with which they conduct their work are more pronounced (Bakker et al., 2008; Bakker & Demerouti, 2007; Deci & Ryan, 1985; van den Broeck et al., 2008).

Hypothesis 1b: Sense of belonging is positively related to work engagement.

In line with our assumption that intergenerational contact has an indirect positive relation with work engagement via sense of belonging, research has verified the link between genuine interpersonal connections and enjoyment of tasks in a variety of contexts, ranging from education, to sport, health care, and the work domain (Christian et al., 2011; Gagné & Deci, 2005). Research has further demonstrated that this positive effect can be explained by sense of belonging (Knight et al., 2017; van den Broeck et al., 2008; Wang & Eccles, 2012).

Hypothesis 1c: Sense of belonging mediates the relation between intergenerational contact and work engagement.

The Moderating Role of Age, Generativity Motive, and Perceived Remaining Time

Age and Generativity Motive as Moderators

To explain age differences in the strength of the link between intergenerational contact and sense of belonging, we hypothesize that age has an indirect moderating effect through the generativity motive.

First, we assume that age is positively related to the generativity motive. According to Erikson (1963), generativity as the concern for guiding and establishing the next generation should initially emerge in middle adulthood (i.e., around 40 years) as a distinct state in a person's psychosocial development. While generativity can also be enacted by younger individuals (e.g., young parents caring for their children, young teachers guiding their students; McAdams & St. Aubin, 1998), a positive association between age and the generativity motive is expected, because relevant experience and opportunities increase with age (McAdams et al., 1993). Empirical evidence supports this assumption as older compared to younger employees tend to have a higher generativity motive (Kooij et al., 2011; Zacher et al., 2011), appreciate jobs more in which they have the opportunity to pass on knowledge to younger coworkers (Mor-Barak, 1995), and engage in more helping and mentoring behavior of younger coworkers (Garcia et al., 2018). Furthermore, having the opportunity to enact generativity represents one of the reason why older employees work even beyond retirement age (Zhan et al., 2015).

Hypothesis 2a: Age is positively associated with generativity motive.

Second, we propose that the generativity motive is an underlying mechanism that explains the moderating effect of age on the relation between intergenerational contact and sense of belonging. Specifically, we expect that older employees derive more pronounced sense of belonging from intergenerational contact, because of the alignment of the generative opportunities during intergenerational contact and older workers' generativity motive. During intergenerational contact, both older and younger coworkers have the opportunity to influence each other by exchanging their knowledge and experiences and by providing emotional and

social support (Burmeister & Deller, 2016; Gerpott et al., 2017; Tempest, 2003). These interactions during intergenerational contact are more likely to improve the sense of belonging of older employees because they can act upon their generativity motive by supporting younger employees (Lang & Carstensen, 2002). Accordingly, the generative opportunities inherent in intergenerational contact are better aligned with older employees' goal priorities (Lang & Carstensen, 2002). This complementary fit between what employees prioritize and wat they receive from their workplace relationships has been shown to lead to the experience of relational attachment (Ehrhardt & Ragins, 2019). The generativity motive thus explains why older (vs. younger) employees experience a stronger sense of belonging because of intergenerational contact.

Hypothesis 2b: Generativity motive moderates the positive effect of intergenerational contact on sense of belonging; the positive effect of intergenerational contact on sense of belonging is stronger for people higher in generativity motive than for those lower in generativity motive.

Hypothesis 2c: Age has an indirect moderation effect (through the generativity motive) on the effect of intergenerational contact on sense of belonging; the positive effect of intergenerational contact on belonging is stronger for older compared to younger employees.

Age and Perceived Remaining Time at Work as Moderators

To explain age differences in the strength of the link between sense of belonging and work engagement, we hypothesize that age has an indirect moderating effect through perceived remaining time at work.

First, we argue that age is negatively related to perceived remaining time at work because younger individuals tend to perceive time as more expansive in terms of "time since birth," while older individuals are more likely to view time as constrained in terms of "time left in life." Perceived remaining time at work represents a sub-dimension of occupational

future time perspective (Zacher & Frese, 2009), and closely reflects Carstensen's concept of future time perspective, applied to the employment context (Henry et al., 2017). In line with our argument, recent meta-analytical evidence showed that age is strongly and negatively associated with perceived remaining time at work (Kooij et al., 2018; Rudolph, Kooij et al., 2018). Further, as most adults exit the workforce between 60 and 70 years of age, moving closer to the retirement stage should go hand in hand with decreases in perceived remaining time at work (Kooij & Zacher, 2016). Hence, we expect older employees to perceive their remaining time at work to be more constrained compared to younger employees.

Hypothesis 3a: Age is negatively associated with perceived remaining time at work.

Second, we argue that perceived remaining time at work is the mechanism underlying the moderating effect of age on the link between sense of belonging and work engagement. Individuals' perception of remaining time influences their goal priorities, such that people with more constrained future time perspective tend to focus on positive socioemotional experiences, while people with a more expansive future time perspective tend to be more concerned with knowledge accumulation and personal development (Carstensen et al., 1999; Carstensen, 2006; Lang & Carstensen, 2002). This effect is also noticeable in organizations in which older employees' remaining occupational time until retirement directs their attention to socioemotional goals (Henry et al., 2017; Zacher & Frese, 2009; Zacher & Griffin, 2015). Feeling connected to others at work represents a pleasant socioemotional experience and is therefore closely aligned with older employees' goal priorities. Close alignment between employees' work experience and their goal priorities can contribute to more favorable attitudes and behavior at work (Greguras & Diefendorff, 2009). For example, Linz (2004) found that, compared to younger workers, older workers attached greater importance to feeling respected by their coworkers in terms of their motivation at work. This finding is echoed by recent research on work motivation, which demonstrated that employees, who have their specific needs met by their work relationships, experience stronger organizational

attachment, more desirable work attitudes, and more positive psychological states (Ehrhardt & Ragins, 2019). Therefore, sense of belonging should lead to stronger work engagement for employees with more constrained perceived remaining time at work.

Hypothesis 3b: Perceived remaining time at work moderates the positive effect of sense of belonging on work engagement; the positive effect of sense of belonging on work engagement is stronger for employees with more constrained perceived remaining time at work than for those with more expansive perceived remaining time at work.

Hypothesis 3c: Age has an indirect moderation effect (through perceived remaining time at work) on the positive effect of sense of belonging on work engagement; the positive effect of sense of belonging on work engagement is stronger for older compared to younger employees.

Overview of Studies

We devised two empirical studies to test our hypotheses. In combining an experimental study (Study 1) with a time-lagged field study (Study 2), we aimed to maximize both internal and external validity. In Study 1, we focused on the first part of the conceptual model (see Figure 1). We aimed to confirm the causal link between intergenerational contact and sense of belonging, moderated by age via generativity motive (i.e., testing Hypothesis 1a and Hypotheses 2a-2c). In doing so, we also aimed to address possible questions about the extent to which the effect on sense of belonging is driven by the specific nature of *inter*generational contact compared to other types of workplace contact, such as *intra*generational contact. As a result, we designed an experimental study in which we compared the effect of intergenerational contact on sense of belonging to an active control condition as the reference group as well as to an intragenerational contact group. In Study 2, a time-lagged field study with three measurement waves, we examined our complete conceptual model. We tested how sense of belonging mediates the effect of intergenerational contact on

work engagement and how age, mediated by generativity motive and perceived remaining time at work, moderates this effect.

Study 1

Methods

Procedure

Five undergraduate psychology students recruited the participants for this study in the German-speaking part of Switzerland. Overall, 90 participants were recruited. Students recruited 90 participants overall of which 45 people were younger than 33, and 45 people were older than 41. For the older age group, the students recruited employees of the university from a wide range of specializations (e.g., secretaries, scientific personnel, information technology specialists). For the younger age group, they recruited students of the university from a wide range of study backgrounds (e.g., psychology, education, and economics).

While the age-based cut-offs are arbitrary (Ng & Feldman, 2010; Rudolph & Zacher, 2017a), they enabled us to create different age-based experimental groups (i.e., intergenerational and intragenerational) and intergenerational pairs with an age difference around 10 years (see Burmeister, Fasbender, & Deller, 2018). This minimum gap precludes contact between members of closely adjacent birth years with potentially minimal age difference (e.g., between 37 and 40 years). Within the young (n = 45) and the old (n = 45) age groups, participants were randomly assigned to the three conditions: *inter*generational contact (n = 30), *intra*generational contact (n = 30), and no contact (n = 30). We then randomly created 15 age-diverse pairs (i.e., intergenerational; young—old) and 15 same-age pairs (i.e., intragenerational; young—young or old—old) to establish the intergenerational condition and the intragenerational condition, respectively. The 15 same-age pairs consisted of seven old—old pairs and eight young—young pairs. The 30 individuals in the control condition did not interact with another individual during the intervention. However, to facilitate the data analysis of the nested data (i.e., individuals nested in intergenerational or intragenerational

pairs), we randomly assigned the 30 individuals in the control condition to pseudo pairs as well (i.e., intergenerational; young—old).

Participants were invited to the laboratory at a specific date and time and were told that they are participating in a study on work behavior. Upon arrival in the laboratory, participants were greeted by one of the students and placed at a computer. Here, they received written information about the study's procedure. First, participants filled in the pre-intervention survey that included the measure for belonging. Second, participants were asked to engage in an activity for 15 minutes. More specifically, they were asked to solve a crossword puzzle with twelve words. After solving the crossword puzzle, they were also asked to reflect on the resulting solution word, which was "career aspiration." To facilitate the reflection, participants could use three questions that were displayed at the door of the experimental room (e.g., what would be your dream job and why?). The crossword puzzle was created for the purpose of this study with a publicly available online software and had an average degree of difficulty. In the intergenerational contact condition, one participant of the younger age group and one participant of the older age group solved the crossword puzzle together and jointly reflected on the solution. In the intragenerational condition, the two participants were either both from the younger age group or both from the older age group. In the active control condition, participants solved the crossword puzzle on their own, and reflected on the solution in writing. To compare the effect of intergenerational contact to intragenerational contact and the control group, we created two dummy-coded variables for intergenerational and intragenerational contact in our analysis. In the intergenerational contact group, the average age difference was 27.60 years (SD = 6.82), and the age difference in the intragenerational contact group was 5.93 years (SD = 3.65). Third, after 15 minutes, one of the students entered the room to end the activity, place the participants at a computer, and ask them to fill in the post-intervention survey that included the measure of belonging and

demographics. Before leaving the laboratory, one of the students provided the participants with an oral and a written debriefing about the study's purpose.

Participants

The 90 participants were German-speaking employees and students of a university in Switzerland. On average, participants in the younger age group were 24.47 years old (*SD* = 3.25, Min = 19, Max = 32), and participants in the older age group were 51.02 years old (*SD* = 6.15, Min = 42, Max = 62). Overall, 65% of the participants were female. Of the participants, 13% had a PhD, 36% held a bachelor's or master's degree, 19% had finished vocational training, and the remaining 33% had finished high school. They had, on average, 15.68 years of work experience (*SD* = 13.14, Min = 0, Max = 44). To thank them for their participation, participants could participate in a raffle for gift vouchers.

Measures

We applied all measures in German and used a translation-back-translation procedure to translate the original English items into German.

Sense of Belonging. We measured sense of belonging before and after the manipulation with the 6-item scale by Malone et al. (2012). We asked participants to indicate their momentary agreement or disagreement on a 7-point scale. A sample item is "Right now, I have a sense of belonging." Cronbach's alpha values were .95 (pre-intervention) and .93 (post-intervention).

Employee Age. We asked participants to indicate their chronological age in years in the post-intervention questionnaire. To facilitate the interpretation of the unstandardized coefficient for chronological age in comparison to the other unstandardized coefficients in our analysis, we rescaled employee age by factor 10 (Gielnik et al., 2018).

Generativity Motive. We measured generativity motive with the three-item scale by Kooij and Van De Voorde (2011). A sample item is "How important is the chance to teach

and train others for you?" (*1 = Not important at all, 7 = Very important*). Cronbach's alpha was .92.

Analytical Strategy

To test our hypotheses, we ran one overall path analytic model using a between-person approach. All analyses were performed using the package *lavaan* in R using maximum likelihood estimator (R Core Team, 2017). Our experimental data was hierarchically structured because participants were nested in dyads. To generate unbiased estimated and standard errors, we thus performed hierarchical regression analysis (Bryk & Raudenbush, 1992; Klein & Kozlowski, 2000; Raudenbush & Bryk, 2002). We grand-mean centered all variables except the dependent variable, and we used the multilevel option in the package *lavaan* in *R* (R Core Team, 2017) to estimate a multilevel path analytic model. We controlled for pre-intervention sense of belonging, which means that the regression coefficients can be interpreted as change in sense of belonging from before to after the intervention. To test Hypotheses 2c, which specified a mediated moderation effect of age via generativity motive, we estimated an indirect effect in terms of a Type II Mediated Moderation (Gielnik et al., 2018; Wang et al., 2015). More specifically, we calculated the mediated moderation of age through generativity motive by multiplying the effect of age on generativity motive with the interaction effect between generativity motive and intergenerational contact (for an example of equations and Mplus code, please see Gielnik et al., 2018). To test the significance of this indirect effect, we estimated 95 percent bias-corrected bootstrap confidence intervals (CIs) to account for potential deviations from normality of the parameter estimates (Preacher & Hayes, 2008).

Results

Table 1 displays the means, standard deviations, and intercorrelations of the study variables.

Preliminary Analysis

Before testing our hypotheses, we tested for pre-intervention differences to identify factors that need to be controlled because they might affect the proposed causal effect of the intergenerational contact intervention. We tested pre-intervention differences using ANOVA by comparing the three groups (i.e., control group, intragenerational contact group, intergenerational contact group) on focal study variables and demographic differences. We found no differences on the focal variables pre-intervention sense of belonging, $F(2,87) = 0.21$, $p = .815$; age, $F(2,87) = 0.28$, $p = .760$; and generativity motive, $F(2,87) = 2.01$, $p = .141$. In addition, we found no differences on the demographic characteristics education (1 = primary school, 2 = secondary school, 3 = vocational education, 4 = bachelor/master degree, 5 = PhD/MBA), $F(2,83) = 0.31$, $p = .737$; dyadic educational difference (0 = no dyadic educational difference, 1 = dyadic educational difference), $F(2,79) = 0.52$, $p = .597$; and gender, $F(2,85) = 0.17$, $p = .847$. However, we found a significant difference across groups on dyadic gender composition (0 = same gender dyad, 1 = mixed gender dyad), $F(2,83) = 3.58$, $p = .032$. We thus controlled for dyadic gender composition in our hypothesis tests.

Hypothesis Tests

As displayed in Table 2 and in support of Hypothesis 1a, we found that intergenerational contact had a positive effect on sense of belonging, while controlling for pre-intervention sense of belonging and intragenerational contact. In line with Hypothesis 2a, age was positively and significantly related to generativity motive. However, Hypothesis 2b was not supported because the moderating effect of generativity motive on the effect of intergenerational contact on sense of belonging was sizeable but non-significant. As a result, the indirect moderation effect of age on the relation between intergenerational contact and sense of belonging through generativity motive was not significant (*indirect effect* = .07, *SE* = .05, $p = .161$). Hypothesis 2c was therefore not supported.

Robustness Checks

To test the independence of our findings from the data analytical approach, we estimated the same model using hierarchical linear modeling with the package *lmer* in *R* (instead of path analysis with the package *lavaan* in R). To test the significance of the indirect effects, we used parametric bootstrapping with Monte Carlo method. Results of the multilevel path analytic model estimated with *lavaan* and the hierarchical regression model estimated with *lmer* led to the same interpretation of results.

Discussion

The results of Study 1 provide support for our argument that intergenerational contact helps people to feel more connected to others. By comparing this effect to an intrageneration contact group, our findings indicate that the specific nature of intergenerational contact might be particularly beneficial. However, we did not find support for our argument that older compared to younger people feel more connected to others after intergenerational contact because of their higher generativity motive. This non-significant finding, might be due to the our relatively small sample size, which makes the detection of interaction effects more difficult (Shieh, 2009). The non-significant interaction effect might thus potentially become significant in a research design with a larger sample and more power. Study 2, which tests the complete conceptual model, also aims to further investigate the moderation effect of generativity motive using a larger sample.

Study 2

Method

Procedure

We conducted a time-lagged study with three measurement waves, each three months apart, over a total period of six months in Germany. We commissioned an online research company that manages a large research-only consumer and business panel to collect the data for this study. The ISO 26362 certified panel company compensated the participants for their time (between €3.01 for participation in one wave only and €9.24 for participation in all three

waves). At first, 5,083 invitations were sent to potential participants in the panel company's database, who were German speaking and at least part-time employed (i.e., at least 20 hours per week). In total, 1,026 people clicked on the link of the first questionnaire. Of these people, 560 participants provided data on the study variables at Time 1. All participants who had provided data at Time 1 were invited to participate in Waves 2 and 3. Of the 560 participants, 53% (n = 297) provided data at all three time points, 28% (n = 157) provided data at two time points, and 19% (n = 106) provided data at the first time point only.

Participants

Participants were on average 46.74 years old (SD = 10.89, Min = 19, Max = 72), and 41.29% were female. They worked in diverse industries, including professional services (29%), manufacturing (25%), public sector (14%), health sector (11%), trade (10%), insurance and banking (6%), and education (5%). They had an average organizational tenure of 14.61 years (SD = 11.40) and worked 38.93 hours per week (SD = 4.12).

Measures

We applied all measures in German and used a translation-back-translation procedure to translate the original English items into German.

Intergenerational Contact. At Time 1, we measured intergenerational contact with the four-item intergenerational contact frequency scale by King and Bryant (2017). The scale was designed to capture the frequency of "cooperative" and informal contact between older and younger coworkers (King & Bryant, 2017, p. 128). The item stem "How often do you…" is followed by the four items: "…have conversations with co-workers outside your generation?", "…have conversations with co-workers outside your generation relating to things other than work?", "…talk with co-workers outside your generation about your personal lives?", and "…eat meals with co-workers outside your generation during the workday?" (*1 = Never, 7 = Very often*). We instructed participants to refer to interactions with coworkers who belonged to a

generation "that was not their own" in answering the items (Henry et al., 2015, p. 247). As there is no exact definition of the term "generations" and as age-based cut-off values to identify generations are arbitrary (Rudolph & Zacher, 2017b), we did not assign participants to a generational group based on their age before answering the items. Instead, participants identified themselves which of their interactions they perceived as intergenerational, based on the notion that the generational concept is meaningful for workers in constructing their sense of self (Joshi et al., 2010; Weiss & Lang, 2009). Employees can thus be expected to have a working concept of the term "generations" and be able to identify other's generational membership relative to themselves. As suggested by Henry et al. (2015), when thinking about the "other generation" older workers (e.g., older than 50 years) are likely to think about contact with younger coworkers, while younger coworkers (e.g., 50 years or younger) are likely to think about contact with older coworkers. Cronbach's alpha for the scale was .75.

Employee Age. At Time 1, we asked participants to indicate their chronological age in years. To facilitate the interpretation of the unstandardized coefficient for chronological age in comparison to the other unstandardized coefficients in our analysis, we rescaled employee age by factor 10 (Gielnik et al., 2018).

Generativity Motive. At Time 1, we measured generativity motive with the same 3-item scale by Kooij and Van De Voorde (2011) as in Study 1. Cronbach's alpha was .92.

Sense of Belonging. At Time 2, we measured sense of belonging with a four-item scale by Chiniara and Bentein (2016), which provides an assessment of work-specific sense of belonging. Participants were instructed to indicate how fulfilling their current work is regarding different indicators of belonging (*1 = Not fulfilling at all, 7 = Completely fulfilling*). A sample item is "The feeling of being part of a group at work." Cronbach's alpha was .85.

Perceived Remaining Time at Work. At Time 2, we measured perceived remaining time at work using three items from the occupational future time perspective scale by Zacher and Frese (2009). Perceived remaining time at work is a sub-dimension of occupational future

time perspective and reflects aging-related perceptions of time left in the employment context. This operationalization closely reflects Carstensen's (e.g., Carstensen, 2006) context-free conceptualization of future time perspective, as applied to the employment context (Henry et al., 2017; Rudolph, Kooij et al., 2018). A sample item is "My occupational future seems infinite to me" (*1 = Strongly disagree, 7 = Strongly agree*). Cronbach's alpha was .86.

Work Engagement. At Time 3, we measured work engagement with the German version of the nine-item work engagement scale (Schaufeli et al., 2006; Schaufeli & Bakker, 2003). Participants were asked to indicate how often they feel a certain way about their job (*1 = Never, 7 = Every working day*). A sample item is "At my work, I feel bursting with energy." Cronbach's alpha was .96.

Control Variables. We followed methodological recommendations to refrain from the inclusion of control variables unless there is a meaningful theoretical rationale (Becker, 2005; Becker et al., 2016; Bernerth & Aguinis, 2016). First, we controlled for participants' need to belong because the need to foster acceptance and belonging varies across individuals (Leary & Kelly, 2009). Employees with a higher need to belong might react more positively to intergenerational contact and might also derive more motivational benefits from experienced belongingness. We measured need to belong at Time 1 with four items that we adapted from Chiniara and Bentein (2016). A sample item is "How important is it to you to feel part of a group at work" (*1 = Very unimportant, 7 = Very important*). Cronbach's alpha was .81. Second, we controlled for opportunities for social interactions at work to distinguish the effect of intergenerational contact from the general level of social interactions at work. We measured opportunities for social interactions at work at Time 1 with three items from the social support scale introduced by Morgeson and Humphrey (2006) as part of their Work Design Questionnaire (WDQ). A sample item is "I have the opportunity to meet with others in my work" (*1 = Strongly disagree, 7 = Strongly agree*). Cronbach's alpha was .74.

Analytical Strategy

As in Study 1, we ran one overall path analytic model to test our hypotheses. To maintain statistical power and reduce bias, we followed methodological recommendations for handling missing data in longitudinal studies (Graham, 2009; Wang et al., 2016), and requested full information maximum likelihood estimation (Little & Rubin, 2002; Newman, 2014). We centered all variables, except the dependent variable, prior to creating the interaction terms and conducting the analyses. To test the indirect effect of intergenerational contact on work engagement via sense of belonging as specified in Hypothesis 1c, we estimated 95 percent bias-corrected bootstrap CIs (Preacher & Hayes, 2008). To test Hypotheses 2c and 3c, we estimated indirect effects in terms of a Type II Mediated Moderation (Gielnik et al., 2018; Wang et al., 2015), as described in Study 1.

Results

Table 3 displays the means, standard deviations, and intercorrelations of the study variables.

Preliminary Analysis

Before testing our hypotheses, we tested the empirical distinguishability of the five focal multi-item measures in our model (intergenerational contact, sense of belonging, work engagement, generativity motive, and perceived remaining time at work) using confirmatory factor analysis (CFA). The five-factor model showed an acceptable model fit (χ^2 = 783.83, *df* = 220, CFI = .92, TLI = .91, RMSEA = .07, SRMR = .06), and fit better than a four-factor model in which we combined sense of belonging and work engagement ($\Delta\chi^2$ = 281.06, Δdf = 4, $p < .001$), a four-factor model in which we combined generativity motive and perceived remaining time at work ($\Delta\chi^2$ = 526.99, Δdf = 4, $p < .001$), and a one-factor model ($\Delta\chi^2$ = 2453.60, Δdf = 10, $p < .001$).

Hypothesis Tests

Table 4 displays the results of our hypotheses tests. In support of Hypothesis 1a and 1b, we found that intergenerational contact was positively associated with sense of belonging,

and sense of belonging was positively associated with work engagement. As the indirect effect of intergenerational contact on work engagement via sense of belonging was positive and significant (*indirect effect* = .05, *SE* = .02, *z* = 2.54, *p* = .011, 95% CI [.010, .081]), Hypothesis 1c was supported.

In support of Hypothesis 2a, we found that age was positively and significantly associated with generativity motive. However, Hypothesis 2b was not supported as we did not find a significant moderation effect of generativity motive on the relation between intergenerational contact and sense of belonging. Accordingly, the indirect moderation effect of age on the relation between intergenerational contact and sense of belonging via generativity motive was not significant (*indirect effect* = -.01, *SE* = .01, *z* = -0.67, *p* = .505, 95% CI [-.018, .009]). Thus, we did not find support for Hypothesis 2c.

Consistent with Hypothesis 3a, age was negatively associated with perceived remaining time at work. In support of Hypothesis 3b, we found a significant negative moderation effect of perceived remaining time at work on the relation between sense of belonging and work engagement. Finally, the indirect moderation effect of age on the relation between sense of belonging and work engagement through perceived remaining time at work was positive and significant (*indirect effect* = .10, *SE* = .03, *z* = 3.18, *p* = .001, 95% CI [.036, .153]), supporting Hypothesis 3c.

To further illustrate the significant moderation effect, we plotted the slope of sense of belonging on work engagement at higher (i.e., more expansive; +1 *SD*) and lower levels (i.e., more constrained; -1 *SD*) of perceived remaining time at work. Figure 2 illustrates that the link between sense of belonging and work engagement is stronger for employees with more constrained perceived remaining time at work. We conducted simple slope tests to probe this moderation effect further. We found a significant positive effect of sense of belonging on work engagement in case of more constrained perceived remaining time at work (γ = .41, *SE*

= .13, $p < .001$), and a non-significant effect in case of more expansive perceived remaining time at work (γ = .12, *SE* = .12, p = .116).

Supplementary Analysis

Although not hypothesized, a question that may arise based on our findings is whether the indirect link between intergenerational contact and work engagement via sense of belonging is moderated by perceived remaining time at work. Testing this moderated mediation effect is based on combining our arguments from Hypothesis 1a regarding the positive link between intergenerational contact and sense of belonging with our arguments from Hypothesis 3b regarding the moderating effect of perceived remaining time at work on the link between sense of belonging on work engagement. Accordingly, we tested the indirect effect of intergenerational contact on work engagement via sense of belonging at higher (+1 SD) and lower (-1 SD) levels of perceived remaining time at work. We found that the indirect effect at lower levels of perceived remaining time at work was positive (*indirect effect* = 0.07, *SE* = .03, z = 2.74, p = .006, 95% CI [.020, .121]), while the indirect effect at higher levels of perceived remaining time at work was non-significant (*indirect effect* = 0.02, *SE* = .02, z = 1.41, p = .159, 95% CI [-.008, .051]). Further, the difference between the two conditional indirect effects was also significant *(*Δ *indirect effect* = 0.05, *SE* = .02, z = 2.28, p = .023, 95% CI [.007, .092]). The results of the supplementary analysis thus indicate that perceived remaining time at work is an age-related difference that shapes the motivating potential of intergenerational contact.

Robustness Checks

First, we ran the model without including the control variables (i.e., need to belong, opportunities for social interactions). The exclusion of control variables did not change our results. Second, we tested our model additionally controlling for age squared, sex, and organizational tenure on both sense of belonging and work engagement. We found that all effects were non-significant, and that the interpretation of the results remained unchanged. In

addition, we tested a model in which we controlled for the effects of age, generativity motive, and perceived remaining time at work on intergenerational contact, to control for possible selection effects. Accordingly, older employees, employees with higher generativity motive, and employees with lower perceived remaining time at work, might be more likely to seek intergenerational contact as a form of social interaction. We found that the interpretation of the results remained unchanged when these additional control variables were included. Third, we conducted sensitivity analysis to assess the influence of missing data patterns on our results (Newman, 2014). We tested our model while only including participants who had provided data at more than one time point (N = 454) and at all three time points (N = 297). We found that the interpretation of results remained unchanged.

Discussion

The results of Study 2 suggest that intergenerational contact has motivating potential for workers, and especially for older workers. Accordingly, we found support for our argument that intergenerational contact increases work engagement because workers experience a higher sense of belonging. This motivating effect of sense of belonging was more pronounced for older workers because their perceived remaining time at work is more constrained as compared to younger workers. However, as in Study 1, our results did not support our argument that older workers compared to younger workers experience higher sense of belonging resulting from intergenerational contact because of their higher generativity motive. On the one hand, this non-significant finding could be explained by our operationalization of intergenerational contact. We asked employees to indicate how often they had conversations with coworkers from other age groups, which might have been interpreted as referring to more informal interactions only. However, the generativity motive might be particularly influential in shaping the effect of more formalized and task-related intergenerational interactions during which knowledge transfer is expected from older employees (Burmeister & Deller, 2016; Kessler & Staudinger, 2007). As older employees

often see themselves as the "go-to"-people for providing knowledge to others (Burmeister, Fasbender, & Deller, 2018), they might benefit the most in intergenerational contact that is formalized and designed to facilitate the transfer of their knowledge to younger coworkers. On the other hand, the non-significant finding in Study 2 is consistent with the non-significant finding in Study 1, suggesting that both younger and older employees may experience increased sense of belonging when engaging in intergenerational contact, and that this effect may not be shaped by the generativity motive.

General Discussion

The central aim of this research was to better understand who experiences motivational benefits from intergenerational contact, and the motivational processes by which this occurs. We developed a theoretical model that is grounded in need-based theories of work motivation and lifespan development theory to decipher why intergenerational contact motivates work engagement and to clarify the moderating role of employee age as a contact domain-specific boundary condition. We found support for a causal effect of intergenerational contact on sense of belonging, which suggests that the specific nature of intergenerational contact may be motivating. We also found that intergenerational contact had a positive indirect effect on work engagement via sense of belonging. Further, our findings indicate that age indirectly shaped the link between sense of belonging and work engagement through older workers' more constrained perceived remaining time at work. Overall, these findings suggest that intergenerational contact has motivating potential and that older compared to younger employees derive more pronounced motivational benefits from intergenerational contact due to their constrained perception of remaining time at work.

Theoretical Implications

Our findings offer several contributions to and theoretical implications for scholarship on intergroup contact, employee motivation, and workforce aging. First, we widen the nomological net of the intergenerational contact construct to include motivational outcomes

by connecting research on intergroup contact with research on employee motivation. By linking intergenerational contact to work engagement, our findings suggest that intergenerational contact has the potential to motivate and engage both older and younger employees. We thus expand research showing that intergenerational contact can reduce negative attitudes and behavior toward age-diverse interaction partners (Abrams et al., 2006; Fasbender & Wang, 2017; Henry et al., 2015; Iweins et al., 2013; Turner et al., 2007; Turner & Crisp, 2010), to emphasize its motivating potential for the focal individuals involved in the intergroup interaction. In addition, we demonstrate that intergenerational contact has motivational benefits above and beyond intragenerational (and thus more general) interpersonal contact.

In addition, grounded in need-based theories of work motivation (Baumeister & Leary, 1995; Green, Finkel et al., 2017), we introduce sense of belonging as a motivational process that explains why intergenerational contact leads to work engagement. Our findings indicate that employees feel more connected and closer to each other due to the specific nature of intergenerational contact, which, in turn, can motivate their work engagement. These findings are aligned with research on the motivating potential of workplace contact more broadly. For example, research showed that contact exposure to beneficiaries of one's work can increase motivation and performance via sense of belonging (Green, Gino, & Staats, 2017), while social exclusion has a negative impact on sense of belonging and subsequently lowers the motivation and ability of employees to contribute to the organization (O'Reilly & Robinson, 2009). With our research on intergenerational contact, we add an age-specific lens by showing that contact between different age groups can fulfill more basic human needs, such as the need to belong (Baumeister & Leary, 1995). Our findings are thus aligned with research on the need-fulfilling and motivating nature of workplace contact in general (Ehrhardt & Ragins, 2019; Fasbender et al., 2020; Green, Gino, & Staats, 2017), but they also challenge more negative conceptualizations of possible conflicts in multigenerational environments (North &

Fiske, 2015; Rudolph & Zacher, 2015). In other words, we advance research on aging at work by demonstrating that employees from other age groups can meet one's needs related to social belonging.

Second, we contribute insights into the role of employee age, as an important and contact domain-specific moderator, in shaping the effects of intergenerational contact at work. Our study thus illustrates the usefulness of connecting lifespan development theories (Baltes, 1987; Carstensen, 2006; Erikson, 1963) with research on workplace contact to uncover age-related differences in motivational reactions to intergroup contact. Operationalizing these age-related motivational differences in reactions to interactional processes at work using lifespan development theories (see Bohlmann et al., 2018; Wang et al., 2015) may thus support the development of more accurate predictions about the need-fulfilling potential of workplace contact (Ehrhardt & Ragins, 2019). Our findings also advance research on the role of age at work that has primarily focused on the design of jobs and work tasks (Mühlenbrock & Hüffmeier, 2020) by identifying more informal interpersonal interactions at work that may be particularly meaningful and motivating for younger and older employees.

In examining age differences in motivational reactions to intergenerational contact, we add to intergroup contact theory by demonstrating the value of studying contact domain-specific moderators (i.e., age, generativity motive, perceived remaining time at work) of specific intergroup contact experiences (i.e., intergenerational contact). Research to date has assumed that intergroup contact elicits universal benefits across age groups (Pettigrew et al., 2011). In addition, intergroup contact researchers have mostly studied domain-unspecific moderators such as status and social dominance orientation (Bowman & Griffin, 2012; Kauff et al., 2016; Vedder et al., 2017). Our findings suggest that research on intergroup contact may benefit from examining contact domain-specific moderators (e.g., ethnic differences in inter-ethnic contact) to specify who benefits from specific intergroup contact experiences.

Our findings also directly advance research on workforce aging. Accordingly, we go beyond existing research that has focused on the direct effects of age as a proxy for assumed psychological mechanisms, by theorizing and directly operationalizing the age-based mechanisms specified in lifespan development theories (Carstensen et al., 1999; Erikson, 1963). The indirect moderation effect of age through perceived remaining time at work on the link between belonging and work engagement emphasizes that age-related mechanisms based on lifespan development theories, rather than employee age per se, play an important role in understanding the ways in which age shapes motivational processes at work (Bohlmann et al., 2018; Fasbender et al., 2020). Finally, the fact that we found evidence of the moderating role of perceived remaining time at work but not generativity motive, might suggest that aging-related perceptions of time rather than generativity motive is the more relevant psychological mechanism to explain age differences in the motivating potential of intergenerational contact.

Limitations and Future Research Directions

Our research has several limitations that need to be considered when interpreting the results. First, our research has methodological limitations. In both studies, the measure of generativity motive asked participants about the importance of teaching and training others in general, as well as sharing skills with younger people specifically (Kooij & Van De Voorde, 2011). The age-specific item might be incongruent with our design as older and younger employees were reporting on their generativity motive and younger employees might have fewer opportunities to share knowledge and experiences with even younger coworkers. Future research should resolve this incongruency by using a different measure to capture the generativity motive. In the experimental study (Study 1), our sample size was small, which might have made the detection of the proposed moderating effect of generativity motive more difficult (Shieh, 2009). In the intragenerational contact condition, we combined younger and older dyads and thus assumed that younger and older same-age dyads operate in the same way. The task in Study 1 was a crossword puzzle. Compared to younger adults might have an

advantage when completing this task because they tend to have more accumulated knowledge and higher verbal ability (Anderson & Craik, 2017; Salthouse & Somberg, 1982). Future research needs to replicate our experimental findings, using larger samples, a different randomization procedure, and a different task. In the field study (Study 2), we exclusively relied on self-report data, which might have inflated the observed relations due to common method bias. While our time-lagged design can mitigate common method bias (Podsakoff et al., 2003), and most variables in our model (i.e., generativity motive, sense of belonging, perceived remaining time at work, and work engagement) capture psychological constructs that might be difficult to assess via objective data or other report, future research could obtain data on intergenerational contact from coworkers. Such multi-source designs could further improve the methodological rigor of our research.

Second, the motivating potential inherent in intergenerational contact at work needs to be further investigated. For example, we did not capture the exact ways in which older and younger employees influence each other during intergenerational contact. Future research could use event-based sampling methods to understand which elements of intergenerational contact are most beneficial for younger and older employees. In addition, future research can further expand our findings by examining why the need-fulfilling potential of intergenerational contact compared to intragenerational contact is more pronounced. To this end, research suggests that age-based differences among coworkers may reduce the risk of unfavorable social comparisons or rivalry among coworkers (Bal & Boehm, 2019) because people tend to compare themselves with similar rather than dissimilar others (Festinger, 1954; Kearney, 2008). Based on the pronounced age differences between generations, intergenerational interactions might be less prone to elicit these negative social comparisons processes and subsequent rivalry and conflict (Balkundi et al., 2007; Hambrick, 1994; Lawrence, 1988; Pelled et al., 1999). Future research is needed to test these possible

differences between intergenerational and intragenerational contact and understand their effects on employee motivation.

Third, even though our research provides a novel lifespan-specific motivational lens on outcomes of intergroup contact, it only captures one mechanism (i.e., sense of belonging) to explain work engagement as a motivational outcome of intergenerational contact. It seems plausible that intergenerational contact could lead to motivational outcomes via additional mechanisms. For example, intergenerational contact might elicit emotional reactions such as pride when employees are able to share their knowledge, which, in turn, could also lead to motivational benefits. Future research should therefore expand our findings and explore additional pathways through which intergenerational contact leads to motivational benefits. In addition, research on work-related outcomes of intergroup contact for the focal individuals involved is generally scarce. Future research could investigate additional outcomes, such as positive work attitudes (e.g., job satisfaction) and work behavior (e.g., creativity, job performance). Broadening the scope of outcomes might be particularly relevant to understand which benefits younger workers can generate from intergenerational contact as our findings indicate stronger motivational benefits of intergenerational contact for older workers. Future research should thus clarify in which specific ways younger workers benefit from intergenerational contact, for example, in terms of more instrumental outcomes such as learning and career progression.

Practical Implications

Our findings have several implications for practitioners. First, as intergenerational contact can have a positive influence on employee motivation, organizations may wish to facilitate intergenerational contact to realize its motivational benefits at work. Specifically, age-diverse training groups or learning tandems (Burmeister, van der Heijden et al., 2018; Gerpott et al., 2017) could be established to create opportunities for intergenerational contact. During intergenerational contact, employees can benefit from each other’s diverse

experiences and insights while also helping each other to feel more connected at work, thereby benefitting their work engagement.

Second, our findings also showed that older employees whose perceived remaining time at work is lower benefitted more strongly from intergenerational contact compared to younger employees. As such, practitioners aiming to motivate and engage older employees may be well advised to facilitate interactions with coworkers from younger age groups. As the link between sense of belonging and work engagement was more pronounced for older workers, practitioners need to consider older employees' heightened focus on their socioemotional needs in designing their work experience. Existing research on the motivation of older employees has highlighted work features such as security and intrinsic rewards as motivating (Kooij et al., 2008), but our findings point to the relevance of social work characteristics. Creating regular opportunities for meaningful social interactions at work, for example through meetings, joint lunch breaks, and group activities, might be particularly important for motivating older employees.

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Table 1

Study 1: Descriptive Statistics, Intercorrelations, and Cronbach's Alphas of the Study Variables

Variables	*M*	*SD*	1	2	3	4	5	6	7
1. Dyadic gender composition[a]	0.44	0.50							
2. Employee age[b]	3.74	1.42	-.17						
3. Generativity motive	5.23	1.23	-.23*	.27**	(.92)				
4. Intragenerational contact[c]	0.33	0.47	-.16	-.01	.21*				
5. Intergenerational contact[d]	0.33	0.47	-.12	.07	-.11	-.50**			
6. Pre-intervention sense of belonging	5.76	1.12	.09	-.13	-.11	-.02	-.05	(.95)	
7. Post-intervention sense of belonging	6.00	0.90	.05	.24*	.24*	-.14	.21*	.10	(.93)

Note. $N = 90$. [a]1 = "mixed gender dyad", 0 = "same gender dyad"; [b]Rescaled by factor 10; [c]1 = "intragenerational contact intervention", 0 = "no intragenerational contact intervention"; [d]1 = "intergenerational contact intervention", 0 = "no intergenerational contact intervention".

Reliability estimates (Cronbach's alpha), where available, are displayed along the diagonal in parentheses. * $p < .05$, ** $p < .01$.

Table 2

Study 1: Results of Hypotheses Testing

	Post-intervention sense of belonging				Generativity motive			
	Estimate	*SE*	*z*	*p*	*Estimate*	*SE*	*z*	*p*
Intercept	6.02	0.08	72.77	.000	0.08	0.12	0.64	.520
Dyadic gender composition[a]	0.20	0.18	1.14	.682				
Pre-intervention sense of belonging	0.18	0.09	2.08	.038				
Employee age[b]	0.13	0.07	1.90	.058	0.24	0.09	2.73	.006
Generativity motive	0.19	0.08	2.31	.021				
Intragenerational contact[c]	-0.09	0.21	-0.41	.682				
Intergenerational contact[d]	0.46	0.21	2.21	.027				
Intergenerational contact x Generativity motive	0.28	0.17	1.63	.103				
R^2	0.23				0.08			

Note. $N = 90$. [a]1 = "mixed gender dyad", 0 = "same gender dyad"; [b]Rescaled by factor 10; [c]1 = "intragenerational contact intervention", 0 = "no intragenerational contact intervention"; [d]1 = "intergenerational contact intervention", 0 = "no intergenerational contact intervention".

Table 3

Study 2: Descriptive Statistics, Intercorrelations, and Cronbach's Alphas of the Study Variables

Variables	*M*	*SD*	1	2	3	4	5	6	7	8
1. Need to belong	4.83	1.14	(.86)							
2. Opportunity for social interactions	5.03	1.24	.48**	(.74)						
3. Employee age[a]	4.67	1.09	-.05	.04						
4. Generativity motive	5.31	1.25	.40**	.37**	.20**	(.92)				
5. Perceived remaining time at work	3.29	1.54	.12*	.09	-.67**	-.07	(.86)			
6. Intergenerational contact	4.61	1.03	.41**	.38**	-.05	.31**	.10	(.75)		
7. Sense of belonging	4.41	1.14	.47**	.52**	.00	.28**	.17**	.39**	(.85)	
8. Work engagement	4.66	1.24	.33**	.40**	.13**	.31**	.19**	.28**	.46**	(.96)

Note. $N = 560$. [a]Rescaled by factor 10. Reliability estimates (Cronbach's alpha), where available, are displayed along the diagonal in parentheses.

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

Table 4

Study 2: Results of Hypothesis Testing

	Sense of belonging				Work engagement			
	Estimate	*SE*	*z*	*p*	*Estimate*	*SE*	*z*	*p*
Intercept	0.06	0.05	1.16	.247	4.62	0.05	87.39	< .001
Need to belong	0.22	0.05	4.28	< .001	0.06	0.06	0.98	.329
Opportunity for social interactions	0.29	0.04	6.50	< .001	0.16	0.05	3.03	.002
Employee age[a]	-0.02	0.05	-0.44	.658	0.50	0.07	6.88	< .001
Generativity motive	0.03	0.04	0.80	.423				
Perceived remaining time at work					0.33	0.05	6.66	< .001
Intergenerational contact	0.17	0.05	3.21	.001	0.06	0.06	1.09	.276
Sense of belonging					0.27	0.06	4.17	< .001
Intergenerational contact x Generativity motive	-0.02	0.03	-0.67	.501				
Sense of belonging x Perceived remaining time at work					-0.09	0.03	-3.23	.001
R^2			.32				.32	
	Generativity motive				Perceived remaining time at work			
	Estimate	*SE*	*z*	*p*	*Estimate*	*SE*	*z*	*p*
Intercept	0.00	.05	-.01	.996	0.11	.06	1.89	.059
Age[a]	0.24	0.05	4.98	< .001	-1.01	0.06	-17.72	< .001
R^2			.04				.48	

Note. N = 560. [a]Rescaled by factor 10.

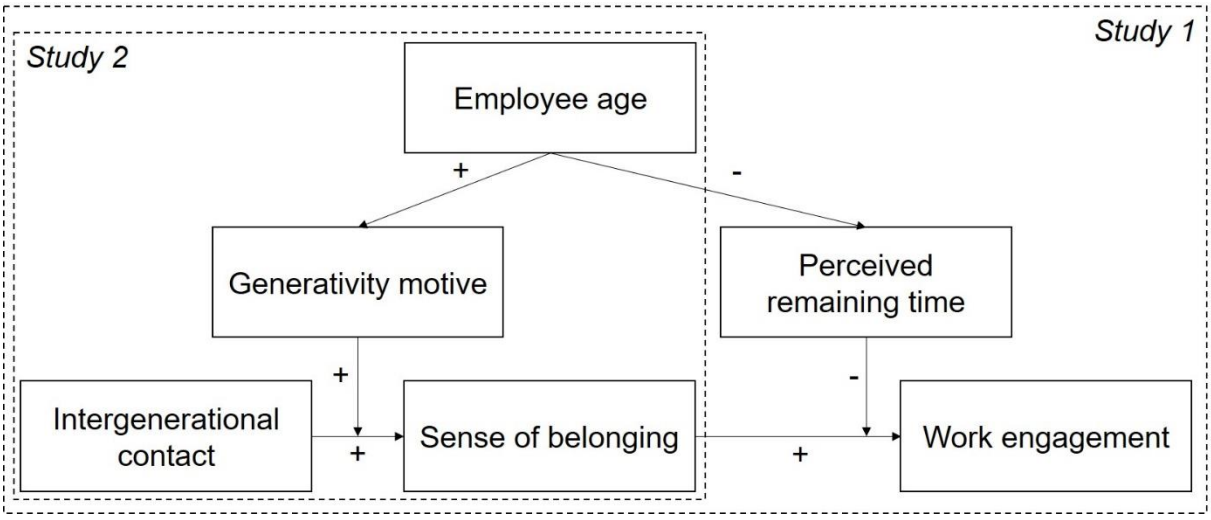

Figure 1. Conceptual Model

Note. Control variables are not displayed in the conceptual model to improve readability. In Study 1, we controlled for dyadic gender composition. In Study 2, we controlled for need to belong and opportunities for social interaction.

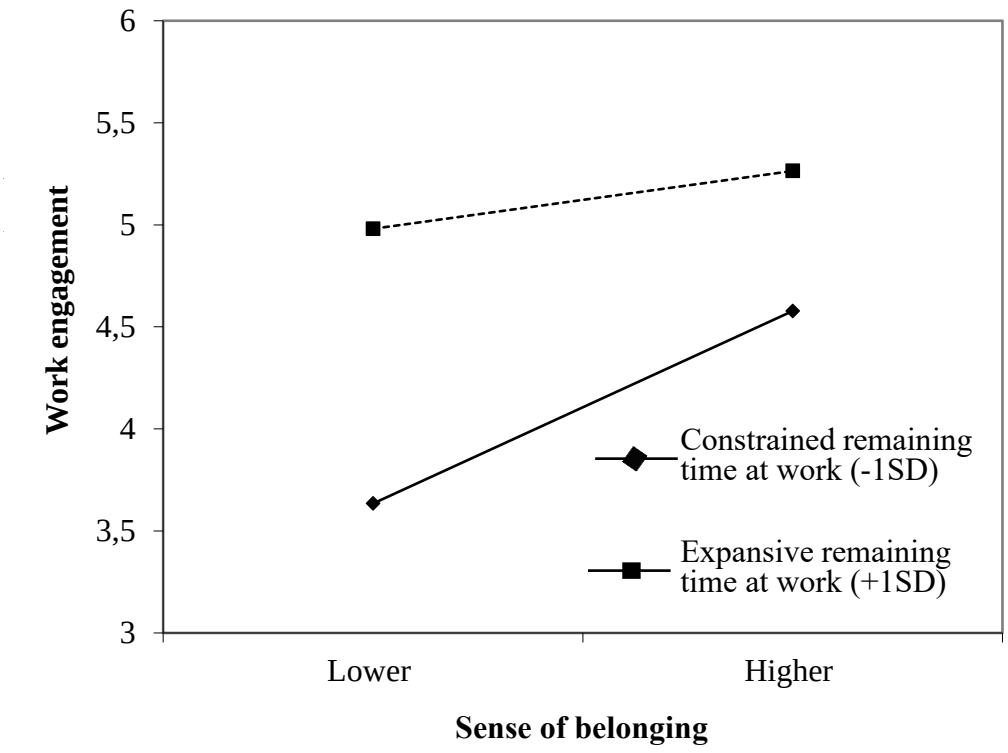

Figure 2. Study 2: Moderating Effect of Perceived Remaining Time at Work on the Relation Between Sense of Belonging and Work Engagement