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The Joint Implications of Individual Growth  
Need and Organizational Climates

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# Retaining Retirement-Eligible Older Workers Through Training Participation: The Joint Implications of Individual Growth Need and Organizational Climates

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As the workforce ages, organizations are increasing their efforts to retain retirement-eligible workers to avoid human capital shortages and preserve knowledge reservoirs. Nevertheless, the potential factors and underlying mechanisms relating to the retention of retirement-eligible workers have rarely been examined. The current research investigates how retirement-eligible workers may be retained by the organization through human capital development activities. Specifically, we draw upon the motivated choice framework to investigate the joint implications of individual (i.e., individual growth need) and organizational factors (i.e., climate for developing older workers and age-inclusive climate) for retirement-eligible workers' training participation and thereby retention. We tested our hypotheses with two samples in the Netherlands. Study 1 utilized the two-wave, multilevel survey data (2015–2018) from the Netherlands Interdisciplinary Demographic Institute Pension Panel Study ( $N = 3,200$  older workers from 409 organizations). We found that individual growth need and climate for developing older workers had positive associations with training participation, which in turn was positively related to older workers' decision to stay (vs. retire) despite retirement eligibility. In addition, age-inclusive climate amplified the positive relationship between individual growth need and training participation. Study 2 utilized the two-wave Longitudinal Internet studies for the Social Sciences panel data ( $N = 301$  older workers). We replicated result patterns from Study 1 and found that person-organization fit and needs-supplies fit mediated the relationship between training participation and retirement-eligible workers' intention to stay.

**Keywords:** retention of retirement-eligible workers, training participation, individual growth need, climate for developing older workers, age-inclusive climate

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Facing the challenges of workplace ageing and shrinking workforces, organizations are increasing their efforts to retain older workers and support longer working lives (Moen et al., 2017; Nagarajan et al., 2019; Turek et al., 2020). Along with this trend, an emerging and important question is how organizations can retain older workers who are eligible for retirement to avoid labor shortages, preserve organizational memory, and improve competitiveness (Fleischmann et al., 2015; van Dalen et al., 2015). On the one hand, retirement-eligible workers provide stability in the

organization's knowledge structure and possess rich work experiences and valuable knowledge that are transferable to younger colleagues (Beier & Kanfer, 2013; Burmeister & Deller, 2016; Fasbender & Gerpott, 2022). On the other hand, once older workers have reached retirement age or social security eligibility age, they are eligible to exit the workforce and may be hesitant to stay in the current organization due to various challenges and constraints (e.g., unexpected technological demands; Berg & Piszczek, 2022; Sheng et al., 2022).

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Despite the importance of studying the retention of retirement-eligible workers, research in this area has been sparse with a primary focus on socioemotional factors (Beehr & Bennett, 2015). Among the limited studies, two studies focused on employee attachment to the organization and found that organizational commitment was positively related to older workers' intention (Jones & McIntosh, 2010) and decision to stay with their current organization after reaching retirement age (Zhan et al., 2013). In addition, both Dendinger et al. (2005) and Zhan et al. (2015) found that retirement-eligible workers chose to continue working mainly due to social (e.g., the need for social interactions) and generative reasons (e.g., the need to share knowledge with younger generations). Despite the insights from these studies, their emphasis on socioemotional factors did not inform us how retirement-eligible workers may be retained through human capital development activities, such as training participation. Such an investigation is crucial, because recharging retirement-eligible workers not only removes potential barriers to continue working, but also refines organizations' knowledge reservoirs (Armstrong-Stassen & Ursel, 2009; Baltes, 1993; Wang & Wanberg, 2017).

Although the broader training literature has suggested a positive association between training participation and employee retention (e.g., Allen et al., 2003; Kraimer et al., 2011), it remains unclear whether and why training participation serves as an important driver for retirement-eligible workers to stay with the current organization. According to the socioemotional selectivity theory, individuals' social goals can be categorized as either acquiring knowledge or maximizing positive socioemotional experiences (Carstensen et al., 1999). While younger workers tend to see the future as limitless and thus place greater value on learning and development, older workers tend to see the future as limited and thus place more value on positive socioemotional experiences (Carstensen, 1995; Carstensen et al., 2003; Kanfer & Ackerman, 2004). In line with this perspective, existing literature considers older workers' goal priorities as knowledge giving rather than knowledge receiving in knowledge transfers (Burmeister et al., 2020). Therefore, it is theoretically compelling to investigate whether and why human capital development activities can help retain retirement-eligible workers.

Moving beyond socioemotional factors, the current research investigates training participation as a human capital development pathway that drives the retention of retirement-eligible workers. Specifically, drawing upon the motivated choice framework (Kanfer et al., 2013), we investigate the joint implications of individual and organizational factors on the retention of retirement-eligible workers through the pathway of training participation. According to the motivated choice framework (Kanfer et al., 2013, p. 256), older workers "... often possess a high level of work competence, a strong sense of self, and social networks that may, in turn, make it feasible to choose whether or not to work." When making such decisions, older workers "... who perceive work as providing satisfaction of salient motives for personal development and generativity are more likely to engage in postretirement employment" (Kanfer et al., 2013, pp. 256–257). In line with these statements, retirement-eligible workers may choose to stay in their current organization when the organization fulfills their needs for growth and development through training activities (Schlosser et al., 2012). In addition, this theoretical

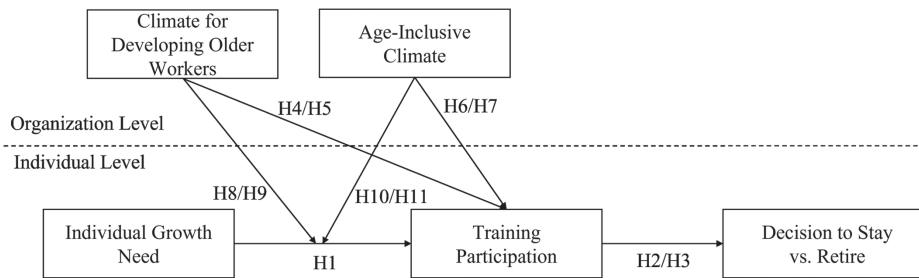
framework suggests that individuals' motivation to work (vs. full retirement—i.e., the ultimate exit from paid employment) can be jointly shaped by individual-level psychological factors and organization-level contextual factors (Beehr & Bennett, 2015; Feldman, 1994; Kanfer et al., 2013). On the one hand, individual growth need (i.e., individuals' intrinsic desire to self-develop through competence improvement or new skill acquisition; Shalley et al., 2009), as an individual difference, largely reflects older workers' motive for personal development, which serves as a key driver for them to engage in training activities and subsequently facilitates retention (Tiegs et al., 1992; Zargar et al., 2014). On the other hand, organizational climates (i.e., shared organizational practices, policies, and procedures; Schneider et al., 2013), as organizational contexts, may also play critical roles in fostering training participation and thereby retention.

We focus on two types of organizational climates in this article: climate for developing older workers and age-inclusive climate. On the one hand, climate for developing older workers captures the extent to which an organization prioritizes and encourages older workers' learning and development (Armstrong-Stassen & Schlosser, 2008; Spell et al., 2014). It reflects an organization's emphasis on stimulating older workers to engage in training-related activities. On the other hand, age-inclusive climate refers to fair, nondiscriminatory, and inclusive treatment of employees of all ages (Boehm et al., 2014; Rudolph & Zacher, 2021). It reflects an organization's interest in engaging employees from all age-groups in work activities and indicates the extent to which older workers are valued and included (Li, Gong, et al., 2021). These two climates represent different ways for organizations to manage and support older workers. Accordingly, we seek to understand whether each climate could foster the retention of retirement-eligible workers by motivating training participation directly or facilitating the positive relationship between individual growth need and training participation (Rauvola & Rudolph, 2020).

We tested our theorizing with two samples from the Netherlands. Using two-wave, multilevel survey data, Study 1 examined how individual growth need at the individual level, climates at the organizational level, and their cross-level interactions related to retirement-eligible workers' decisions to stay through the mediation of training participation (see Figure 1, for the Study 1 model summary). Using two-wave panel data for retirement-eligible workers, in Study 2, we sought to replicate result patterns from Study 1 and identify mediating mechanisms for the relationship between training participation and intention to stay (i.e., person-organization fit, needs-supplies fit, demands-abilities fit, and job competency; see Figure 2, for the Study 2 model summary).

Our research offers important contributions to the literature. First, moving beyond socioemotional factors, our study sheds light on whether and why retirement-eligible workers<sup>1</sup> can be retained

<sup>1</sup> When studying older worker retention, prior studies have typically examined older workers who are above certain ages (e.g., 50 years old in Armstrong-Stassen and Schlosser, 2008, 2011 as well as Armstrong-Stassen and Ursel, 2009) or ineligible for retirement (e.g., 45–55 years old in Kraak et al., 2017). When older workers are ineligible for retirement, they typically face a choice between staying in their current organization or switching to a different one. In contrast, retirement-eligible workers have the alternative to exit the labor market. As such, the decision-making dynamics are likely to differ for these two groups of older workers.

**Figure 1***Study 1: Research Model*

Note. H = Hypothesis. H3, H5, H7, H9, and H11 represent indirect effect hypotheses.

through the human capital development pathway of training participation.<sup>2</sup> In this way, we answer the research call to study organizational efforts for retaining retirement-eligible workers (Beehr & Bennett, 2015). In addition, our test for the theoretical mechanisms linking training participation to older worker retention helps understand why training participation may drive the retention of retirement-eligible workers.

Moreover, taking an organizational lens, we go beyond individual factors to investigate how organizational climates relate to training participation, and thereby the retention of retirement-eligible workers. Different from formal organizational policies that only capture the existence of certain management practices, organizational climates describe employees' shared perceptions of work environments, which have a more proximal influence on individual employees (Jiang et al., 2013; Li, Shao, et al., 2022; Zacher & Yang, 2016). Recognizing the importance of studying organizational climates, several studies have investigated how organizational climates (e.g., safety climate, innovation climate, and diversity climate; Beus et al., 2010; Chen et al., 2013; McKay et al., 2007; Neal & Griffin, 2006) relate to individual employees' attitudes and behaviors. Yet, when studying the antecedents for training participation (Bell et al., 2017) or older worker retention (Wang & Shi, 2014), prior research has rarely adopted a multilevel perspective, mostly approaching individual- and organization-level factors separately. Answering the research calls for taking a multilevel perspective to study older workers' employment decisions (Wang & Shultz, 2010), we examine how climate for developing older workers and age-inclusive climate relate to retirement-eligible workers' training participation and thereby retention.

Importantly, according to the multilevel perspective (Henkens, 2022; Kozlowski & Klein, 2000; Ostroff & Judge, 2007), organizational climates shape individuals' attitudes and behaviors in two ways: (a) having a direct trickle-down influence on one's attitudes and behaviors, and (b) serving as cross-level moderators that interact with individual-level factors to shape one's attitudes and behaviors. We thus study both the trickle-down influence and the cross-level interactions of the two climates. Such an investigation offers a unique opportunity to understand whether these two climates function differently in eliciting training participation and retaining retirement-eligible workers. In this way, we advance the current knowledge regarding how organizational contexts facilitate or hinder the retention of retirement-eligible workers.

From a practical standpoint, due to age-related stereotypes (e.g., often perceived as lacking learning motivation or capability; Ng & Feldman, 2012), older workers sometimes receive unfavorable treatment when it comes to training access (Maurer & Rafuse, 2001). In addition, organizations often fail to adjust their training content and methods to accommodate the needs of older workers (Armstrong-Stassen & Templer, 2005). Consequently, older workers' training participation has been shown to be significantly lower than that of younger workers (Belloni et al., 2015; European Centre for the Development of Vocational Training, 2012; Turek & Henkens, 2021). As such, our research is meaningful in that we point out training participation as a viable and practical pathway for organizations to retain retirement-eligible workers. In addition, by studying the roles of organizational climates in facilitating training participation, the current research gives agency to organizations by suggesting possible ways to retain retirement-eligible older workers regardless of socioemotional experiences (e.g., interpersonal relationships).

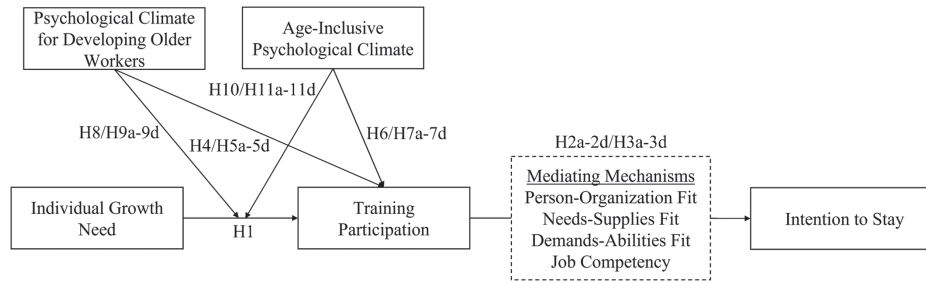
## Theory and Hypotheses Development

### Retaining Retirement-Eligible Workers: A Motivated Choice Perspective

With the ageing workforce, continued employment after reaching retirement age has become an important form of labor force participation (Kim & Feldman, 2000). Nevertheless, the current knowledge on retaining retirement-eligible workers is limited. To explore the mechanism that goes beyond socioemotional factors, we investigate whether retirement-eligible workers may be retained by an organization through training activities. Rapidly changing technology advancements, dynamic market environments, and fierce

<sup>2</sup> Relatedly, prior empirical studies have primarily focused on the association between organizational training availability and older workers' intention to remain with their organization (e.g., Armstrong-Stassen & Ursel, 2009; Stynen et al., 2016). Yet, the motivated choice framework suggests that training availability does not automatically lead to training participation, and older workers may only benefit from training opportunities offered by the organization when they utilize them (Bell et al., 2017). Indeed, according to the data from Wave 1 of Study 1, although 64% of retirement-eligible workers indicated that training opportunities were available to them, only 18% had participated in training activities in their organizations. In this respect, the present study allows us to examine whether actual training participation predicts the retention of retirement-eligible workers beyond training availability.

**Figure 2**  
Study 2: Research Model



*Note.* H = Hypothesis. H2a–2d, H3a–3d, H5a–5d, H7a–7d, H9a–9d, and H11a–11d represent indirect effect hypotheses.

global competition have made continuous learning through training participation more important than ever for managing and recharging human capital (Ilmarinen, 2001; Turek & Henkens, 2021). However, the existing literature has suggested that older workers are sometimes treated less favorably in terms of training due to stereotypes that they are not motivated or capable of learning as well as lower expected returns from investments (Ng & Feldman, 2012; Posthuma & Campion, 2009).

The current research takes a motivated choice perspective to understand the joint implications of individual and organizational factors for retirement-eligible workers' training participation and ultimately retention. The motivated choice framework suggests that individuals vary in their personal development motives (Kanfer et al., 2013). Retirement-eligible workers who place greater value on learning and growth (i.e., high individual growth need; Shalley et al., 2009) are more motivated to engage in training activities to fulfill their developmental needs. When organizations satisfy such needs through in-house training activities, those workers are more likely to stay with the current organization despite retirement eligibility (Kanfer et al., 2013; Rauvola & Rudolph, 2022; Schlosser et al., 2012). This framework further suggests that organizations' work contexts (e.g., organizational climates, human resource practices, age diversity, and age bias) "... function as potent determinants of motivation at work and motivation to retire" (Kanfer et al., 2013, p. 260). Relatedly, Potočnik et al. (2009) found that older workers' retirement timing was shaped by their organizations' human resource practices and collective norms. As the present study focuses on the human capital development pathway, we examine climate for developing older workers and age-inclusive climate as two distinct organizational factors that relate to retirement-eligible workers' training participation and ultimately retention.

### Growth Need, Training Participation, and the Retention of Retirement-Eligible Workers

First, we propose that individual growth need is positively related to training participation. Individual growth need captures individuals' desire to grow and develop at work (Hackman & Oldham, 1980). Employees with higher growth needs tend to respond more positively to challenging and complex work tasks (e.g., Graen et al., 1986; Tieg et al., 1992). This is because such employees

typically have stronger internal needs to strive and learn at work and can better grasp various opportunities at work to fulfill their desire for growth and development (Elias, 2009; Lin et al., 2018). In line with this logic, retirement-eligible workers with higher individual growth need are more likely to participate in training offered by the organization, because this type of activity allows them to continuously learn and improve, and thus satisfy their motives for growth and development (Kanfer et al., 2013). Thus, we hypothesize

*Hypothesis 1:* Individual growth need is positively related to training participation.

Next, we hypothesize that training participation is positively related to the retention of retirement-eligible workers. The motivated choice framework suggests that retirement-eligible workers are more likely to continue employment when their personal development needs are satisfied by the current organization (Kanfer et al., 2013). In light of this theoretical perspective, person-organization fit, and needs-supplies fit appear to be important explanatory mechanisms for the benefits of training participation (Wang et al., 2011). Specifically, participating in training activities offered by the organization indicates an alignment between retirement-eligible workers' endeavor of learning and growth and the organization's orientation toward developing older workers, improving perceptions of person-organization fit (i.e., value congruence between an employee and the organization; Cable & DeRue, 2002) and thus sustaining those workers in the organization (Kooij et al., 2020). In addition, training participation satisfies retirement-eligible workers' needs for occupational development (Kooij et al., 2014; Kooij et al., 2020), improving their needs-supplies fit (i.e., congruence between an employee's needs and what the organization offers; Cable & DeRue, 2002) and thus motivating them to continue working in the current organization (Allen et al., 2003; Picchio & van Ours, 2013).

In addition, the learning perspective from the broader training literature has highlighted the central role of training in helping employees master skills, maintain or improve productive capacity, and cope with challenges and job demands (Bell et al., 2017). In accordance with this perspective, training participation is likely to benefit job competency (i.e., one's belief in the capability to perform activities with skills; Spreitzer, 1995) and demands-abilities fit (i.e., congruence between an employee's skills and the job

demands; Cable & DeRue, 2002). With improved job competency and demands-abilities fit, older workers are more capable of and comfortable continuing their current employment after reaching retirement age (Cable & DeRue, 2002; Liu et al., 2011). Taken together, we expect that training participation serves as an important human capital development channel that enhances person-organization fit, needs-supplies fit, demands-abilities fit, and job competency, motivating the retention of retirement-eligible workers. Thus, we hypothesize (hypotheses in brackets were only tested in Study 2)

*Hypothesis 2:* Training participation is positively related to retention (through the mediation of [a] person-organization fit, [b] needs-supplies fit, [c] demands-abilities fit, and [d] job competency).

*Hypothesis 3:* Training participation (via [a] person-organization fit, [b] needs-supplies fit, [c] demands-abilities fit, and [d] job competency) mediates the positive relationship between individual growth need and retention.

### The Trickle-Down Influence of Organizational Climates

We expect that climate for developing older workers acts as a trickle-down force to directly foster training participation. Organizational climate for developing older workers captures older workers' shared perceptions regarding the extent to which an organization prioritizes and encourages their personal development (Spell et al., 2014). Research on organizational climates has suggested that employees are more motivated to engage in certain work behaviors if they perceive that such behaviors would be valued by the organization (Schneider et al., 2013). Specifically, when organizations have a pronounced climate for developing older workers, retirement-eligible workers are more likely to prioritize training-related developmental activities to meet organizational expectations. Simply put, a climate for developing older workers signals that the organization attaches great importance to older workers' learning and developmental behaviors and thus serves as a top-down force that reinforces training participation. Thus, we hypothesize

*Hypothesis 4:* Climate for developing older workers is positively related to training participation.

Jointly considering Hypotheses 2 and 4, climate for developing older workers should positively relate to the retention of retirement-eligible workers through the mediation of training participation. Although this mediating relationship has not been empirically studied, prior research has hinted at the positive association between developmental climate and older worker retention. Specifically, Armstrong-Stassen and Schlosser (2008) found that older workers with higher levels of psychological climate in job development were more likely to intend to stay with their current organization. In addition, Spell et al. (2014) found that employees' shared perceptions of developmental climate were negatively related to voluntary turnover. Therefore, we hypothesize:

*Hypothesis 5:* Training participation (via [a] person-organization fit, [b] needs-supplies fit, [c] demands-abilities

fit, and [d] job competency) mediates the positive relationship between climate for developing older workers and retention.

Further, we expect that age-inclusive climate acts as another trickle-down force that fosters training participation. Age-inclusive climate captures employees' shared perceptions regarding the extent to which an organization treats employees of all ages in a fair, nondiscriminatory, and inclusive manner (Boehm et al., 2014; Li, Gong, et al., 2021). When studying the implications of inclusion for employee work behaviors, prior studies have typically adopted a social exchange perspective, arguing that employees are likely to engage in activities toward the organization in return for experienced inclusion (e.g., Boehm et al., 2014; Li, Kleshinski, et al., 2021). In accordance with this perspective, when retirement-eligible workers receive fair and inclusive treatment from their organization, they are more likely to participate in training activities to maintain or improve knowledge and skills to contribute to their organization. In addition, for organizations with a pronounced age-inclusive climate that highlights equal and inclusive management across age-groups, people of different ages are readily accepted and valued at work (Rudolph & Zacher, 2021). Thus, they are less prone to harbor age-based bias and stereotypes that discriminate against older workers in training (Posthuma & Campion, 2009), which removes barriers for retirement-eligible workers to seek developmental opportunities and engage in training activities. Therefore, we hypothesize

*Hypothesis 6:* Age-inclusive climate is positively related to training participation.

Jointly considering Hypotheses 2 and 6, age-inclusive climate should positively relate to the retention of retirement-eligible workers through the mediation of training participation. Although no empirical studies have examined this mediating relationship, prior research has hinted at the positive association between age-inclusive climate and older worker retention. In particular, Armstrong-Stassen and Schlosser (2011) found that older workers' inclusion perceptions were positively related to their intention to stay. In addition, Sousa et al. (2019) found that the adoption of age-inclusive practices was negatively associated with older workers' preference for early retirement. Therefore, we hypothesize

*Hypothesis 7:* Training participation (via [a] person-organization fit, [b] needs-supplies fit, [c] demands-abilities fit, and [d] job competency) mediates the positive relationship between age-inclusive climate and retention.

### Cross-Level Interactions Between Individual Growth Need and Organizational Climates

Although retirement-eligible workers with high individual growth need may desire or value personal growth and development in their jobs, they may or may not behave in ways that fulfill such psychological needs (e.g., by participating in training) due to various internal and external constraints (Lin et al., 2018). In particular, the threat of age-based stereotypes may diminish their motivation and perceived capacity to learn through training participation. In addition, older workers sometimes hesitate to engage in training activities to absorb new information and knowledge, as such activities may contradict or be incompatible with their current

way of thinking and acting (Atchley, 1989; Kim & Hall, 2013; von Bonsdorff & Ilmarinen, 2013). In this respect, organizations may play an important role in helping retirement-eligible workers to overcome learning barriers, navigate challenging work environments, and facilitate the fulfillment of growth needs (Kanfer et al., 2013). Thus, organizational climates may facilitate the positive relationship between individual growth need and training participation.

Specifically, we propose that climate for developing older workers amplifies the positive association of individual growth need with training participation and subsequently retention. Organizations with a pronounced climate for developing older workers tend to actively encourage older workers' developmental activities and learning behaviors (Spell et al., 2014). Such an emphasis aligns with ones' growth needs, and thus workers with higher growth needs feel less hesitant to participate in training to fulfill such needs (Ostroff & Judge, 2007). Also, organizations with a pronounced developmental climate are more likely to take measures to facilitate training activities (e.g., offering necessary resources and support), which help older workers overcome barriers for learning and improve their learning efficacy. Hence, retirement-eligible workers may see a clearer linkage between training participation and growth need fulfillment, which prompts those with higher growth needs to engage in training activities. In contrast, for organizations lacking a climate for developing older workers, continuous learning, and development is discouraged. Consequently, retirement-eligible workers may see a weaker association between training participation and growth need fulfillment. Thus, even with high growth needs, they may be reluctant to participate in training. Taken together, we hypothesize

*Hypothesis 8:* Climate for developing older workers moderates the relationship between individual growth need and training participation, such that this positive relationship is stronger when climate for developing older workers is higher (vs. lower).

*Hypothesis 9:* Climate for developing older workers moderates the indirect relationship of individual growth need and retention through the mediation of training participation (via [a] person-organization fit, [b] needs-supplies fit, [c] demands-abilities fit, and [d] job competency), such that this indirect relationship is stronger when climate for developing older workers is higher (vs. lower).

In addition, we propose that age-inclusive climate amplifies the positive association of individual growth need with training participation and subsequently retention. For organizations with an age-inclusive climate, employees are treated equally and inclusively regardless of age (Boehm et al., 2014). Such a climate suppresses age-based discrimination and stereotypes regarding learning motivation and capability (Kunze et al., 2013), removing potential barriers for older workers to participate in training for personal development. Therefore, retirement-eligible workers with higher growth needs feel more comfortable with leveraging training opportunities for growth need fulfillment. In contrast, in organizations lacking an age-inclusive climate, older workers may receive unfavorable treatments and suffer from age-based stereotypes that prevent them from actively seeking opportunities to fulfill their growth needs by engaging in training activities (Kunze et al., 2013; Snape & Redman, 2003). Thus, in the latter organizations, even with high

growth needs, retirement-eligible workers may feel discouraged or demotivated and are reluctant to fulfill such needs through training participation. Taken together, we hypothesize

*Hypothesis 10:* Age-inclusive climate moderates the relationship between individual growth need and training participation, such that this positive relationship is stronger when age-inclusive climate is higher (vs. lower).

*Hypothesis 11:* Age-inclusive climate moderates the indirect relationship of individual growth need and retention through the mediation of training participation (via [a] person-organization fit, [b] needs-supplies fit, [c] demands-abilities fit, and [d] job competency), such that this indirect relationship is stronger when age-inclusive climate is higher (vs. lower).

## Transparency and Openness

We describe our sampling plan, all data exclusions, and measures used in the studies and adhered to the *Journal of Applied Psychology* methodological checklist. Main analysis codes are available at [https://osf.io/jcghq/?view\\_only=0a578af95509473fad947d298e559502](https://osf.io/jcghq/?view_only=0a578af95509473fad947d298e559502). Data are not available due to their proprietary nature and the governing data policy of Netherlands Interdisciplinary Demographic Institute (NIDI). Path modeling analyses were conducted with *Mplus*, Version 8.1 (Muthén & Muthén, 1998/2017) and indirect effect tests were conducted with *R*, Version 4.1.2 (R Core Team, 2021). The study designs were not preregistered.

## Study 1

### Sample

Hypotheses were tested with the two-wave survey data (2015–2018) from the NIDI Pension Panel Study (NPPS). In the Netherlands, the employment rate for 60–64-year-olds had increased from 22% in 2005 to 63% in 2020 (Eurostat, 2021). Such percentages were well reflected in our sample and largely attributable to policy reforms that have been gradually increasing the public pension age (Sonnet et al., 2014). One of the potential barriers to continuing work at an older age is the mandatory nature of retirement. When reaching the public pension age, most Dutch employees must end their existing employment contract and receive a pension benefit. Although a new employment contract can be arranged on short-term basis with the same organization after mandatory retirement, it goes against the social norm and often requires much administrative effort to set up (Oude Mulders, 2019). Another factor that may push older workers toward retirement is the relatively generous retirement benefits. The net replacement rate for a full-career, average-wage worker in the Netherlands is about 80%, higher than the average of 63% among the Organisation for Economic Co-operation and Development countries. The Dutch welfare system also provides extensive support for low-income individuals, keeping the poverty rates among 66+ year-olds at about 3.1% (Organisation for Economic Co-operation and Development, 2019).

The goal of this large-scale, time-lagged NPPS data collection is to understand retirement-eligible workers' transition from work to retirement in the Netherlands (Henkens et al., 2017). Several studies were published using the two-wave NPPS data (see <https://nidi.nl/en/publications>, for a comprehensive publication list; e.g.,



Grünwald et al., 2021, 2022; Vanajan et al., 2021, 2022; van Solinge et al., 2022). This data set has a multilevel design, in which older workers are nested within organizations, offering opportunities to examine the roles of organization-level climates in retirement-eligible workers' retention decisions. The sample was drawn from the client organizations of three of the largest pension funds in the Netherlands. The target population includes three large industry sectors (i.e., government and education, construction, health, and social work), and about 49% of Dutch wage-employees work in these sectors. The stratified sampling process partitioned the target population into nine strata based on the three industry sectors and three organizational sizes (small: 10–49 employees; medium: 50–249 employees; and large: 250 or more employees). A total of 1,669 organizations were sampled. Next, a maximum of 40 older workers between the ages of 60 and 65 who worked at least 12 hr a week (according to Statistics Netherlands, 12 hr a week was the threshold to count someone as participating on the labor market) were drawn within each sampled organization using a probability mechanism. Notably, the NPPS data do not include employees younger than 60, because retirement before this age is rare in the Netherlands due to accompanying financial consequences (e.g., much lower pension).

The total number of sampled older workers was 15,470 and 6,793 of them participated in the first-wave study in 2015 (response rate = 43.9%). The second-wave survey in 2018 was sent to all participants that responded to the first-wave survey and 5,312 of them filled out the survey (response rate = 78.2%). After matching the two-wave data and excluding cases with missing values, the data set included responses from 4,208 older workers. During the analysis, we excluded respondents ( $N = 163$ ) who were older than 67 at Wave 2, as the Netherlands' mandatory retirement age was approximately 66.4 in 2018. Further, as this study focused on older workers' decisions made between continued employment with the current organization and full retirement, we excluded older workers who worked in a different organization at Wave 2 ( $N = 135$ , accounting for only about 3% of the sample). Finally, to facilitate within-organization comparison in multilevel modeling and obtain a reliable assessment of organizational climates, we excluded those organizations with less than three responses<sup>3</sup> ( $N = 710$ ). The final sample consisted of 3,200 retirement-eligible workers from 409 organizations. About 46% of the final sample were female. The average age was 61.89 ( $SD = 1.52$ ) at Wave 1. The average work hours per week was 31.92 ( $SD = 6.64$ ) at Wave 1.

The sample attrition raised a concern of nonresponse bias. Thus, we compared participants who answered both waves (3,200 older workers) to those qualified participants who only answered Wave 1 (765 older workers) on individual-level control variables and individual growth need assessed in Wave 1. The differences between these two sample groups are relatively subtle.<sup>4</sup> To further address this concern, we analyzed the data with Heckman's two-step approach (Heckman, 1979) to account for the potential sample selection bias. Specifically, at the first stage, we ran a Probit model to estimate the probability of being included in the final sample (represented by a dummy variable) with individual-level control variables and individual growth need as predictors (Certo et al., 2016). At the second stage, we estimated our hypothesized relationships while controlling for the probability of being included in the final sample based on the Step-1 Probit model. Our result patterns remain unchanged

(see the results of the second-stage model in Online Supplemental Appendix Table A1).

## Measures

The control variables, individual growth need, organizational climates, and training participation were measured in 2015 (Wave 1), and decision to stay versus retire was measured in 2018 (Wave 2).

### *Individual Growth Need*<sup>5</sup>

Individual growth need was measured with three items adapted from Shalley et al. (2009). Participants were asked to indicate the extent to which each aspect of their life was important to them (1 = *not important at all*, 5 = *very important*). An example item was "Opportunities to learn new things." The Cronbach's  $\alpha$  was .80.

### *Climate for Developing Older Workers*<sup>6</sup>

The measure of climate for developing older workers was developed for this study and consisted of two items (1 = *strongly disagree*, 5 = *strongly agree*). Items were "In this organization, managers stimulate older workers to keep their knowledge up-to-date" and "Training of older workers has a high priority in this organization." We used a referent-shift composition model (Chan, 1998) to capture this construct. In support of aggregation, the median  $R_{wg(j)}$  across organizations was .73, intraclass correlation coefficient, ICC (1) = .05, and ICC (2) = .39. In addition, one-way analysis of variance (ANOVA) results showed significant differences in organization-level means of climate ratings,  $F(408, 4,438) = 1.63, p < .001$ . The correlation of the two items at the organizational level was .65.

<sup>3</sup> When assessing organizational climates, all older worker responses were included in data aggregation to obtain a more reliable assessment about these constructs.

<sup>4</sup> Specifically, we found that these two sample groups did not differ in age, education (secondary), skill level (medium), relationship satisfaction, training availability, work hours, and individual growth need. However, older workers who participated in both waves were significantly higher in health (mean difference = .11,  $t = 3.17, p = .002$ ), income (mean difference = .13,  $t = 2.06, p = .040$ ), and wealth (mean difference = .21,  $t = 2.90, p = .004$ ). In addition, older workers who participated in both waves contained more female employees (difference in proportions = .05,  $Z = 2.37, p = .018$ ), more employees with tertiary educational backgrounds (difference in proportions = .05,  $Z = 2.43, p = .015$ ), and fewer low-skilled employees (difference in proportions =  $-.05, Z = -3.77, p < .001$ ). Notably, the large sample size allowed us to detect rather small mean or proportion differences. Based on Cohen's  $d$  values, the three mean differences were subtle with relatively small effect sizes (the Cohen's  $d$  values for health, and wealth were .13, .08, and .12, respectively). In addition, based on the Phi coefficients, the three proportion differences also had small effect sizes (the Phi coefficients for gender, tertiary educational background, and low-skilled employees were .04, .04, and .06, respectively).

<sup>5</sup> For scale validation, we collected data from 373 full-time employed participants from Amazon Mechanical Turk (MTurk). The correlation between the three-item measure used in the present study and the six-item measure used in Shalley et al. (2009) was .86, substantiating the convergent validity of the current measure.

<sup>6</sup> For scale validation, we collected data from 191 full-time employed participants above 50 years old from MTurk. The correlation between the two-item measure used in the present study and a three-item measure on appreciation learning climate for older workers (used in Study 2) adapted from Nikolova et al. (2014) was .72, indicating good convergent validity.

### *Age-Inclusive Climate*<sup>7</sup>

The age-inclusive climate measure was developed for this study and consisted of four items (1 = *strongly disagree*, 5 = *strongly agree*). Items were “All employees are treated equally here without regard to the age of the individual,” “The management doesn’t assess people here based on their age,” “New responsibilities are rarely assigned to workers over the age of 60 in this organization,” and “A couple of years before their retirement, older workers no longer count here.” The last two items were reversely coded. We used a referent-shift composition model (Chan, 1998) to capture this construct. In support of aggregation, the median  $R_{wg(j)}$  was .85, ICC (1) = .05, and ICC (2) = .36. In addition, ANOVA results showed significant differences in organization-level means of age-inclusive climate ratings,  $F(408, 4,428) = 1.55, p < .001$ . The Cronbach’s  $\alpha$  at the organizational level was .83.

### *Training Participation*

Participants were asked to indicate whether they have participated in any training program in their organization in the past year (1 = yes, 0 = no). Using a dichotomous measure to capture employee training participation is a well-established approach widely adopted by many studies using archival data (e.g., Bartel, 1994; Belloni et al., 2015; Knoke & Kalleberg, 1994; Li et al., 2018; Nguyen et al., 2021; Nollen & Gaertner, 1991; Zeytinoglu & Cooke, 2009). This measure has a clear cutoff and causes little ambiguity, thus reducing recall errors in self-reported data (Chan, 2009).

### *Decision to Stay versus Retire*

In the Netherlands, employees are eligible for their occupational pension from the age of 60 onwards, and the mandatory retirement age in 2018 was approximately 66.4. Therefore, the participants were retirement-eligible between Wave 1 and Wave 2 and could choose between continuing to work and retirement. We coded older workers’ status into two categories: 1 = decision to stay (i.e., employees who still worked in the same organization) and 0 = full retirement (i.e., employees who had retired and no longer worked).

### *Control Variables*

At the individual level, we controlled for chronological age to account for older workers’ proximity to the mandatory retirement age. We controlled for gender, educational background (classified according to International Standard Classification of Education 2011 as primary [Levels 0–2], secondary [Levels 3–4], tertiary [Levels 5–8]), job type (classified according to International Standard Classification of Occupations 2008 as high-skilled [Groups 1–2], medium-skilled [Groups 3–5], low-skilled [Groups 6–9]), and self-rated health (1 = very poor, 5 = excellent), as such factors may relate to training participation and retention decisions (Fleischmann & Koster, 2018; Picchio & van Ours, 2013; Solem et al., 2016; Wang & Shi, 2014). We controlled for older workers’ monthly income and total wealth, because Netherlands residents with higher incomes tend to work longer, and those with larger total wealth are more likely to retire earlier (Eismann et al., 2019). Further, we controlled for average work hours per week, as older workers who work fewer hours are likely to exit the workforce sooner.<sup>8</sup> In addition, we controlled for training availability (1 = training is available to me at this organization; 0 = training is not available to

me at this organization), because employees’ training participation depends on training opportunities provided by the organization and the current research seeks to understand whether training participations predicts the retention of retirement-eligible workers beyond training availability. Last, to account for the socioemotional factor, we controlled for older workers’ relationship satisfaction at work. According to Carstensen (1992, 1998), older workers have strong socioemotional motives that encompass gaining intimacy and social embeddedness via contact with others. In this respect, we used older workers’ relationship satisfaction to probe the extent to which the organization fulfilled their socioemotional needs. Specifically, relationship satisfaction at work was measured by the levels of satisfaction with the following two aspects (1 = *extremely dissatisfied*, 7 = *extremely satisfied*): (a) relationships with colleagues, and (b) relationship with supervisor(s). The correlation between the two items was .52.

At the organizational level, we controlled for organizational size (i.e., the total number of employees in the organization; a logarithm function was used to scale this variable because its distribution departed from normality) and three industry sectors, because they are used for stratified sampling and differences may exist between industry sectors in available training programs, retirement regulation, and typical exit pathways (van Dalen et al., 2019).

## **Results**<sup>9</sup>

### *Preliminary Analysis*

To demonstrate the discriminant validity of the scale measures (i.e., relationship satisfaction, individual growth need, climate for developing older workers, and age-inclusive climate), we conducted multilevel confirmatory factor analyses. The measurement model was specified by loading items for relationship satisfaction and individual growth need on their respective latent variables at both within-organization and between-organization levels and loading aggregated climate for developing older workers and age-inclusive climate items on their respective latent variables at the between-organization level. Results showed that this model fit well to the data:  $\chi^2(42, N = 3,200) = 205.90, p < .001$ , confirmatory fit index (CFI) = .97, Tucker–Lewis index (TLI) = .95, and root-mean-square error of approximation (RMSEA) = .04. In addition, this model fit the data significantly better than the one that combined items of relationship satisfaction and individual growth need as one latent variable at both levels ( $\Delta\chi^2[4] = 1001.81$ ):  $\chi^2(46, N = 3,200) = 1207.71, p < .001$ , CFI = .76, TLI = .66, and RMSEA = .09. This model also fit the data significantly better than the one that

<sup>7</sup> For scale validation, we collected data from 373 full-time employed participants from MTurk. The correlation between the four-item measure used in the present study and the four-item measure used in Boehm et al. (2014) was .73, substantiating the convergent validity of the current measure.

<sup>8</sup> Notably, at Wave 2, about 49% of the participants reported full retirement, and 37% of the participants reported working reduced hours compared to Wave 1.

<sup>9</sup> Following recommendations of Becker (2005) and Bernerth and Aguinis (2016) on judicious control variable usage, we conducted a robustness check by only including control variables that were significantly correlated with the endogenous variables. Our result patterns were similar to the ones reported in the main analysis (for details, see Online Supplemental Appendix Table A2). As another robustness check, we only included control variables on the specific criteria (training participation or decision to stay vs. retire) based on our control variable theorizing. Our result patterns were similar to the ones reported in the main analysis (see Online Supplemental Appendix Table A3).

combined items of climate for developing older workers and age-inclusive climate as one latent variable at the between-organization level ( $\Delta\chi^2[3] = 230.83$ ):  $\chi^2(45, N = 3,200) = 436.73, p < .001$ , CFI = .92, TLI = .88, and RMSEA = .05. Table 1 presents the means, standard deviations, and correlations of the study variables, except categorical variables with three or more categories.

### Hypotheses Testing

For hypotheses testing, we applied a multilevel path modeling that accounts for the nested structure of the data. Table 2 presents the unstandardized multilevel path modeling results for the main effect model (standardized coefficients are not available for multilevel modeling with random slopes). At the individual level, we specified the random slope of individual growth need on training participation. Other individual-level relationships were specified as fixed ones. We used a logistic link function for training participation and decision to stay versus retire, as they are binary variables. The individual-level control and independent variables were group-mean centered, and organization-level control and independent variables were grand-mean centered to obtain unbiased estimates and facilitate explanation of the main effects as well as the cross-level moderating effects (Enders & Tofghi, 2007; Hofmann & Gavin, 1998; Preacher et al., 2010). The McFadden's pseudo- $R^2$  for this model was 23.6%, suggesting that this model fit the data well (according to McFadden, 1974, values above .2 indicate good model fit).

As shown in Table 2, at the within-organization level, older workers' individual growth need was positively related to training participation ( $\gamma = .62, SE = .11, p < .001$ ; odds ratio [OR] = 1.87). This result indicates that within a particular organization, older workers with a one-unit higher individual growth need were 1.87 times more likely to engage in training participation, supporting Hypothesis 1. Further, training participation was positively related to decision to stay versus retire ( $\gamma = .33, SE = .14, p = .016$ ; OR = 1.39). This result indicates that older workers who participated in training were 1.39 times more likely to remain with the current organization than to retire compared to those who did not participate in training, thus supporting Hypothesis 2. To test the mediation hypotheses, a Monte Carlo method with 20,000 bootstrapping repetitions was used to estimate the 95% confidence intervals (CIs) for the indirect relationships to determine their significance (Preacher & Selig, 2012; Selig & Preacher, 2008). The indirect relationship of individual growth need and decision to stay versus retire through the mediation of training participation was .21 with a 95% CI of [.04, .41], which excluded zero and thus supported Hypothesis 3.

At the between-organization level, climate for developing older workers was positively related to training participation ( $\gamma = 1.61, SE = .24, p < .001$ ; OR = 5.00). This result indicates that for organizations with a one-unit higher climate for developing older workers, older workers were 5.00 times more likely to engage in training participation, supporting Hypothesis 4. The indirect relationship of climate for developing older workers and decision to stay versus retire through the mediation of training participation was .53 with a 95% CI of [.10, 1.03], which excluded zero and thus supported Hypothesis 5. However, age-inclusive climate was not

related to training participation ( $\gamma = -.30, SE = .29, p = .300$ ; OR = .74). Thus, we did not find support for Hypothesis 6 or 7.

Table 3 presents the unstandardized multilevel path modeling results for the cross-level interaction model. The McFadden's pseudo- $R^2$  was 23.7%, suggesting that this model fit the data well. The interaction term of individual growth need and climate for developing older workers on training participation was not significant ( $\gamma = -.43, SE = .22, p = .053$ ; OR = .65). Therefore, we did not find support for Hypothesis 8 or 9. As expected, the interaction term of individual growth need and age-inclusive climate on training participation was positive and significant ( $\gamma = .75, SE = .28, p = .008$ ; OR = 2.11). We plotted the interaction pattern in Figure 3. The positive association between individual growth need and training participation probability was stronger (vs. weaker) when age-inclusive climate was higher (vs. lower), supporting Hypothesis 10. For the moderated mediation test, we compared the 95% CIs for the indirect relationship of individual growth need and decision to stay versus retire through the mediation of training participation when age-inclusive climate was at 1 standard deviation below and above the mean (Edwards & Lambert, 2007). When age-inclusive climate was at 1 standard deviation below the mean, the indirect effect was .13 with a 95% CI of [.02, .29]. It became .29 with a 95% CI of [.05, .56] when age-inclusive climate was at 1 standard deviation above the mean. The difference between these two estimated effects was statistically significant, because zero was not included in the 95% CI [.02, .37] of the difference. Thus, we found support for Hypothesis 11.

### Discussion

Using time-lagged, multilevel survey data, we investigated the human capital development pathway (i.e., training participation) that drives retirement-eligible workers' decision to remain with the current organization. Consistent with our hypotheses, both individual growth need and organizational climate for developing older workers had positive relationships with training participation, which in turn was positively related to decision to stay versus retire. Although age-inclusive climate did not relate to training participation directly, it served as a cross-level moderator that amplified the positive association of individual growth need with training participation, and thereby decision to stay versus retire. However, the cross-level moderation of climate for developing older workers was not significant. A limitation of the present study is that we were unable to test the mediating mechanisms linking training participation to decision to stay versus retire. We tested these mechanisms in Study 2.

## Study 2

### Sample

Study 2 data were collected through the Longitudinal Internet studies for the Social Sciences (LISS) panel administered by Centerdata (Tilburg University, the Netherlands). In March 2022 (Wave 1), a total of 408 panel members who were currently employed and over age 60 were invited to participate in the study, and 358 responded to the survey (response rate = 87.7%).

**Table 1**  
*Study 1: Means, Standard Deviations, and Correlations*

Variable	<i>M</i>	Within-level <i>SD</i>	Between-level <i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Organizational size	5.84	—	1.23	—													
2. Climate for developing older workers	3.05	—	.38	.03	—												
3. Age-inclusive climate	3.45	—	.32	-.08	.36**	—											
4. Age	61.89	1.4	.7	0	-.10*	-.03	—										
5. Gender (0 = male, 1 = female)	.46	.38	.34	.19**	-.03	.22**	-.03	—									
6. Health	3.22	.79	.39	-.01	.04	.13**	.01	.07	—								
7. Monthly income	3.89	1.25	.93	-.07	-.02	0	.07	-.45**	.15**	—							
8. Total wealth	4.12	1.61	.77	-.15**	-.01	0	-.03	-.14**	.16**	.36**	—						
9. Work hours per week	31.92	6.64	5.43	-.15**	.02	-.14**	-.04	-.75**	.03	.58**	.18**	—					
10. Training availability	.64	.44	.23	.01	.34**	.20**	-.02	-.12*	.16**	.17**	.09	.13*	—				
11. Relationship satisfaction	5.44	.83	.42	-.02	.32**	.37**	-.03	.12*	.20**	0	.03	-.04	.19**	—			
12. Individual growth need	3.5	.6	.3	.02	.02	.16**	-.05	.22**	.17**	.16**	-.01	-.14**	.05	.11*	—		
13. Training participation	.18	.35	.18	-.02	.30**	.06	-.03	.06	.14**	-.02	.08	-.04	.38**	.09	.16**	—	
14. Decision to stay versus retire	.51	.46	.23	.03	.13*	.13*	-.41**	-.02	.16**	.07	-.14**	.12*	.07	.08	.06	.06	—

*Note.* Level 1 *N* = 3,200 and Level 2 *N* = 409. Between-organization correlations are presented below the diagonal and within-organization correlations are presented above the diagonal. Organizational size was measured by the total number of employees in the organization and scaled by a logarithm function. Climate for developing older workers and age-inclusive climate were measured on 5-point scales from 1 = *strongly disagree* to 5 = *strongly agree*. Age was measured as chronological age. Gender was coded as 0 = male and 1 = female. Health was assessed by a 5-point scale from 1 = *very poor* to 5 = *excellent*. For monthly income, 1 = less than 1,000 euros, 2 = 1,000–1,500 euros, 3 = 1,500–2,000 euros, 4 = 2,000–2,500 euros, 5 = 2,500–3,000 euros, 6 = 3,000–3,500 euros, 7 = 3,500–4,000 euros, 8 = more than 4,000 euros. For total wealth, 1 = less than 5,000 euros, 2 = between 5,000 and 25,000 euros, 3 = between 25,000 and 50,000 euros, 4 = between 50,000 and 100,000 euros, 5 = between 100,000 and 250,000 euros, 6 = between 250,000 and 500,000 euros, 7 = more than 500,000 euros. Work hours per week was measured as the average number of work hours per week. Training availability was coded as 0 = unavailable and 1 = available. Relationship satisfaction was measured on a 7-point scale from 1 = *extremely dissatisfied* to 7 = *extremely satisfied*. Individual growth need was measured on a 5-point scale from 1 = *not important at all* to 5 = *very important*. Training participation was coded as 0 = no and 1 = yes. Decision to stay versus retire was coded as 0 = full retirement and 1 = decision to stay.  
\* *p* < .05. \*\* *p* < .01.

**Table 2**  
*Study 1: Unstandardized Path Modeling Results (Main Effects)*

Variable	Training participation				Decision to stay versus retire			
	Estimate	OR	SE	<i>p</i>	Estimate	OR	SE	<i>p</i>
Threshold	2.30**	—	.13	<.001	.10	—	.08	.187
<b>Within-organization level</b>								
Age	-.02	.98	.04	.596	-1.11**	.33	.05	<.001
Gender (0 = male, 1 = female)	.16	1.18	.15	.263	.15	1.16	.13	.246
Education (secondary)	.41	1.50	.22	.061	-.11	.89	.18	.531
Education (tertiary)	.56*	1.75	.28	.041	.22	1.25	.22	.316
Skill level (medium)	-.16	0.85	.19	.401	.43**	1.53	.16	.006
Skill level (low)	-.06	.95	.33	.865	.74**	2.10	.25	.003
Health	.11	1.11	.07	.132	.29**	1.34	.06	<.001
Income	-.11	0.89	.06	.061	.15**	1.17	.05	.002
Wealth	.02	1.02	.03	.647	-.17**	.85	.03	<.001
Work hours per week	.01	1.01	.01	.109	.03**	1.03	.01	.001
Training availability	3.50**	32.98	.20	<.001	-.18	.83	.11	.086
Relationship satisfaction	.09	1.10	.07	.162	.18**	1.20	.06	.001
Individual growth need	.62**	1.87	.11	<.001	.17*	1.19	.08	.030
Training participation					.33*	1.39	.14	.016
<b>Between-organization level</b>								
Organizational size	-.08	.93	.05	.153	.06	1.07	.05	.240
Sector (construction)	-.33	.72	.19	.080	-.20	.82	.20	.313
Sector (health and social work)	-.09	.91	.16	.556	.07	1.07	.16	.657
Climate for developing older workers (CD)	1.61**	5.00	.24	<.001	.26	1.29	.20	.206
Age-inclusive climate (AC)	-.30	.74	.29	.300	.43	1.54	.26	.099
McFadden's pseudo- <i>R</i> <sup>2</sup>								23.6%

*Note.* Level 1 *N* = 3,200. Level 2 *N* = 409. Because training participation and decision to stay versus retire are dichotomous variables, the regressions followed logistic link functions and traditional *R*<sup>2</sup> calculation did not apply here. Thus, we apply odds ratio (*OR*) to gauge the effect sizes. McFadden's pseudo-*R*<sup>2</sup> was calculated to capture the improvement in the model likelihood over a null model. For sector, the reference group is government and education; for education, the reference group is primary; and for skill level, the reference group is high-skilled. *SE* = standard error.

\* *p* < .05. \*\* *p* < .01.

Participants reported their personal information (i.e., age, gender, education, skill level, health, monthly income, total wealth, and work hours per week), the information of their organization (i.e., organizational size and industry sector), training availability, relationship satisfaction, individual growth need, psychological climate for developing older workers, age-inclusive psychological climate, and training participation. One month later (Wave 2), these participants were surveyed again, and 332 responses were received (response rate = 92.7%). Participants reported their person-organization fit, needs-supplies fit, demands-abilities fit, job competency, and intention to stay. The 1-month time interval enabled the training benefits to manifest and prior studies have often used this time lag to reduce common method bias (e.g., Gabriel et al., 2018; Rapp & Mathieu, 2019). After removing participants who no longer worked for the same organization at Wave 2 and worked less than 12 hr per week (consistent with Study 1), the final sample contained 301 retirement-eligible workers. About 43% of the final sample were female, and the average age was 63.80 (*SD* = 3.00). The average work hours per week was 31.67 (*SD* = 8.27).

Notably, there were missing values in several control variables due to unknown answers (e.g., organizational size) or unwillingness to report (e.g., monthly income; there were no missing values for the main study variables). Thus, in line with prior research (e.g., Burmeister et al., 2022; Shockley et al., 2021), we modeled missing values with full-information maximum likelihood estimator to retain as much data as possible (Enders & Bandalos, 2001). Our

results stayed the same after removing control variables with missing values from the analysis.

## Measures

Unless otherwise noted below, measures were the same as in Study 1. For relationship satisfaction, the correlation of the two items was .56. For individual growth need, the Cronbach's  $\alpha$  was .84.

### *Psychological Climate for Developing Older Workers*

It was measured with three items adapted from Nikolova et al.'s (2014) appreciation learning climate scale (1 = *strongly disagree*, 5 = *strongly agree*). We replaced "employees" with "older workers" to match our research context. An example item was "In my organization, older workers who make an effort to learn new things earn appreciation and respect." The Cronbach's  $\alpha$  was .88.

### *Age-Inclusive Psychological Climate*

It was measured with four items from Boehm et al. (2014; 1 = *strongly disagree*, 5 = *strongly agree*). An example item was "Our organization makes it easy for people from diverse age-groups to fit in and be accepted." The Cronbach's  $\alpha$  was .83.

**Table 3**  
*Study 1: Unstandardized Path Modeling Results (Interaction Effects)*

Variable	Training participation				Decision to stay versus retire			
	Estimate	OR	SE	<i>p</i>	Estimate	OR	SE	<i>p</i>
Threshold	2.29**	—	.09	<.001	.10	—	.08	.185
<b>Within-organization level</b>								
Age	-.02	.98	.04	.609	-1.11**	.33	.05	<.001
Gender (0 = male, 1 = female)	.16	1.18	.15	.265	.15	1.17	.13	.247
Education (secondary)	.42	1.51	.21	.050	-.11	.90	.18	.531
Education (tertiary)	.57*	1.76	.27	.034	.22	1.25	.22	.316
Skill level (medium)	-.17	.85	.19	.383	.43**	1.53	.16	.006
Skill level (low)	-.05	.95	.32	.879	.74**	2.10	.25	.003
Health	.11	1.11	.07	.133	.29**	1.34	.06	<.001
Income	-.11	.90	.06	.066	.15**	1.17	.05	.002
Wealth	.01	1.01	.03	.701	-.17**	.85	.03	<.001
Work hours per week	.01	1.01	.01	.118	.03**	1.03	.01	.001
Training availability	3.48**	32.35	.15	<.001	-.18	.83	.11	.087
Relationship satisfaction	.10	1.10	.07	.157	.18**	1.20	.06	.001
Individual growth need	.63**	1.88	.09	<.001	.17*	1.19	.08	.030
Training participation					.33*	1.39	.14	.016
<b>Between-organization level</b>								
Organizational size	-.08	.93	.05	.158	.06	1.07	.05	.238
Sector (construction)	-.33	.72	.19	.077	-.20	.82	.20	.312
Sector (health and social work)	-.10	.91	.16	.540	.07	1.07	.16	.658
Climate for developing older workers (CD)	1.64**	5.18	.23	<.001	.26	1.29	.20	.206
Age-inclusive climate (AC)	-.36	.70	.29	.220	.43	1.54	.26	.100
<b>Cross-level interactions</b>								
Individual Growth Need × CD	-.43	.65	.22	.053				
Individual Growth Need × AC	.75**	2.11	.28	.008				
McFadden's pseudo- $R^2$					23.7%			

*Note.* Level 1  $N = 3,200$ . Level 2  $N = 409$ . Because training participation and decision to stay versus retire are dichotomous variables, the regressions followed logistic link functions and traditional  $R^2$  calculation did not apply here. Thus, we apply odds ratio (OR) to gauge the effect sizes. McFadden's pseudo- $R^2$  was calculated to capture the improvement in the model likelihood over a null model. For sector, the reference group is government and education; for education, the reference group is primary; and for skill level, the reference group is high-skilled. SE = standard error.

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

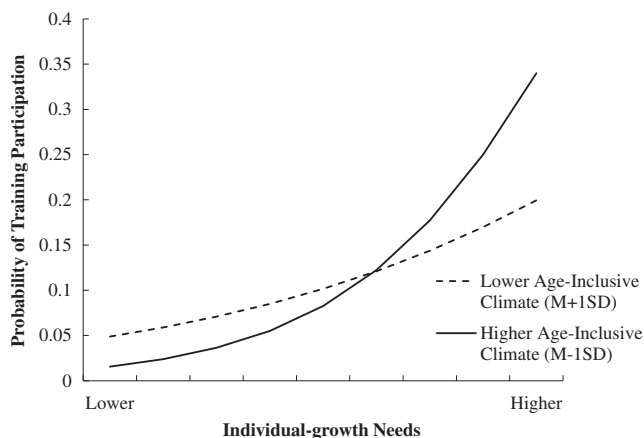
### Training Participation

It was measured with three items adapted from Newman et al. (2011; 1 = *strongly disagree*, 5 = *strongly agree*). The original scale contained five items: three items on in-house training and two

items on training outside the organization. As we focused on the participation in training provided by the organization, we included only the in-house training items. An example item included "I actively participate in in-house job-related training." The Cronbach's  $\alpha$  was .91.

**Figure 3**

*Study 1: Cross-Level Interaction of Individual Growth Need and Age-Inclusive Climate on Training Participation*



### Person-Environment Fit Perceptions

The following fit perceptions were measured with scale items from Cable and DeRue (2002; 1 = *strongly disagree*, 5 = *strongly agree*): person-organization fit (three items;  $\alpha = .91$ ; e.g., "My organization's values and culture provide a good fit with the things that I value in life"), needs-supplies fit (three items;  $\alpha = .92$ ; e.g., "There is a good fit between what my job offers me and what I am looking for in a job"), and demands-abilities fit (three items;  $\alpha = .91$ ; e.g., "The match is very good between the demands of my job and my personal skills").

### Job Competency

It was measured with three items from Spreitzer (1995; 1 = *strongly disagree*, 5 = *strongly agree*). An example item was "I have mastered the skills necessary for my job." The Cronbach's  $\alpha$  was .94.

### Intention to Stay

It was measured with three items adapted from Wöhrmann et al. (2013; 1 = *strongly disagree*, 5 = *strongly agree*). An example item was “I intend to continue to work in my organization despite retirement eligibility.” The Cronbach’s  $\alpha$  was .82.

## Results<sup>10</sup>

### Preliminary Analysis

To demonstrate the discriminant validity of the scale measures (i.e., relationship satisfaction, individual growth need, psychological climate for developing older workers, age-inclusive psychological climate, training participation, person-organization fit, needs-supplies fit, demands-abilities fit, job competency, and intention to stay), we conducted confirmatory factor analyses. The measurement model was specified by loading items on their respective latent variables. Results showed that this model fit the data well:  $\chi^2(360, N = 301) = 500.83, p < .001, CFI = .98, TLI = .97, RMSEA = .04$ . In addition, this model fit the data significantly better than any model that combined items of two variables as one latent factor,  $\Delta\chi^2(9)s \geq 84.01, ps < .001$ . Table 4 presents the means, standard deviations, and correlations of the study variables, except categorical variables with three or more categories.

### Hypotheses Testing

Table 5 presents the unstandardized and standardized path modeling results for the main effect model (to be consistent with Study 1, we explain the findings based on the unstandardized coefficients in the following section). During path modeling, to obtain unbiased estimates and facilitate explanation of interaction patterns (Cohen et al., 2003), the control variables and independent variables were centered at the sample means.

As shown in Table 5, individual growth need was positively related to training participation and explained 3.5% of its variance beyond the control variables ( $\gamma = .33, SE = .08, p < .001, \Delta R^2 = 3.5\%$ ). Therefore, we found support for Hypothesis 1. Training participation was positively related to person-organization fit and explained 6.3% of its variance beyond the control variables ( $\gamma = .17, SE = .04, p < .001, \Delta R^2 = 6.3\%$ ). Similarly, training participation was positively related to needs-supplies fit and explained 3.6% of its variance beyond the control variables ( $\gamma = .10, SE = .05, p = .035, \Delta R^2 = 3.6\%$ ). In addition, training participation was positively related to demands-abilities fit and explained 4.4% of its variance beyond the control variables ( $B = .15, SE = .05, p = .003, \Delta R^2 = 4.4\%$ ). However, training participation was unrelated to job competency ( $\gamma = -.02, SE = .04, p = .697, \Delta R^2 = .0\%$ ).

Person-organization fit, in turn, was positively related to intention to stay and explained 2.2% of its variance beyond the control variables and the other three mediators ( $\gamma = .26, SE = .09, p = .002, \Delta R^2 = 2.2\%$ ). Similarly, needs-supplies fit was positively related to intention to stay and explained 4.0% of its variance beyond the control variables and the other three mediators ( $\gamma = .38, SE = .10, p < .001, \Delta R^2 = 4.0\%$ ). However, demands-abilities fit ( $\gamma = .00, SE = .09, p = .967, \Delta R^2 = .0\%$ ) and job competency ( $\gamma = .01, SE = .09, p = .920, \Delta R^2 = .0\%$ ) were not related to intention to stay. Therefore, we did not find support for Hypotheses 2c, 2d, 3c, 3d, 5c, 5d, 7c, 7d, 9c, 9d, 11c, or 11d. To test the mediation effects

related to person-organization fit and needs-supplies fit, a Monte Carlo method with 20,000 bootstrapping repetitions was used to estimate the 95% CIs for the indirect relationships to determine their significance (Selig & Preacher, 2008). The indirect effects of training participation on intention to stay via person-organization fit and needs-supplies fit were .04 (95% CI = [.01, .08]) and .04 (95% CI = [.003, .08]), respectively. As these two CIs excluded zeros, we found support for Hypotheses 2a and 2b.

Hypothesis 3 predicts that individual growth need has a positive indirect relationship with intention to stay. The indirect effect of individual growth need on intention to stay via the sequential mediation of training participation and person-organization fit was .01 (95% CI = [.004, .03]). Thus, Hypothesis 3a was supported. In addition, the indirect effect of individual growth need on intention to stay via the sequential mediation of training participation and needs-supplies fit was .01 (95% CI = [.001, .03]). Therefore, we found support for Hypothesis 3b.

Consistent with Hypothesis 4, psychological climate for developing older workers was positively related to training participation and explained 3.8% of its variance beyond the control variables ( $\gamma = .22, SE = .07, p = .003, \Delta R^2 = 3.8\%$ ). As expected, the indirect effect of psychological climate for developing older workers on intention to stay via the sequential mediation of training participation and person-organization fit was .01 (95% CI = [.002, .02]). Similarly, the indirect effect of psychological climate for developing older workers on intention to stay via the sequential mediation of training participation and needs-supplies fit was .01 (95% CI = [.0004, .02]). Thus, we found support for Hypotheses 5a and 5b. As age-inclusive psychological climate was unrelated to training participation ( $\gamma = .16, SE = .08, p = .052$ ), Hypotheses 6, 7a, and 7b were not supported.

Table 6 presents the unstandardized and standardized path modeling results for the interaction effect model. The interaction between individual growth need and psychological climate for developing older workers on training participation was not significant ( $\gamma = -.19, SE = .14, p = .155, \Delta R^2 = .0\%$ ). Thus, Hypotheses 8, 9a, and 9b were not supported. The interaction between individual growth need and age-inclusive psychological climate on training participation was significant and explained .6% of its variance above and beyond all other predictors ( $\gamma = .28, SE = .14, p = .047, \Delta R^2 = .6\%$ ). The interaction pattern was plotted in Figure 4, showing that the positive relationship between individual growth need and training participation was stronger (vs. weaker) when age-inclusive psychological climate was higher (vs. lower). Therefore, we found support for Hypothesis 10.

In addition, when age-inclusive psychological climate was higher (1 *SD* above the mean), the indirect effect of individual growth need on intention to stay via the sequential mediation of training participation and person-organization fit was .02 (95% CI = [.006, .05]). When age-inclusive psychological climate was lower (1 *SD* below

<sup>10</sup> Following recommendations of Becker (2005) and Bernerth and Aguinis (2016) on judicious control variable usage, we conducted a robustness check by only including control variables significantly correlated with the endogenous variables. Our result patterns were similar to the ones reported in the main analysis (see Online Supplemental Appendix Table A4). As another robustness check, we only included control variables on the specific criteria (training participation or intention to stay) based on our control variable theorizing. Our result patterns were similar to the ones reported in the main analysis (see Online Supplemental Appendix Table A5).

**Table 4**  
*Study 2: Means, Standard Deviations, and Correlations*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Organizational size	4.26	2.01	—																
2. Climate for developing older workers	3.56	.77	-.07	—															
3. Age-inclusive climate	3.29	.82	-.08	.62**	—														
4. Age	63.8	3	-.06	.03	.11	—													
5. Gender (0 = male, 1 = female)	.43	.5	-.1	.03	-.02	-.03	—												
6. Health	3.08	.7	.01	.20**	.05	-.04	0	—											
7. Monthly income	5.29	1.88	.23**	.07	.15*	.05	-.41**	.03	—										
8. Total wealth	4.82	1.81	.03	.1	.12*	.03	-.07	.1	.17**	—									
9. Work hours per week	31.67	8.27	.11	-.1	-.05	-.21**	-.47**	-.03	.48**	-.02	—								
10. Training availability	.7	.46	.07	.28**	.27**	-.06	.05	.03	.18**	.14*	-.02	—							
11. Relationship satisfaction	5.48	1.09	-.05	.41**	.31**	-.05	-.1	.21**	.09	.05	.06	.118*	—						
12. Individual growth need	3.65	.63	.01	.11	.17**	.05	-.07	.11	.22**	.1	.01	.11	.19**	—					
13. Training participation	3.2	1.03	.03	.38**	.40**	-.04	.05	.08	.21**	.13*	.07	.48**	.29**	.31**	—				
14. Person-organization fit	3.54	.75	-.13	.52**	.53**	.08	.01	.09	.16**	.18**	-.04	.26**	.34**	.16**	.46**	—			
15. Needs-supplies fit	3.79	.73	0	.45**	.44**	.07	.09	.1	.15**	.08	-.05	.22**	.30**	.21**	.38**	.59**	—		
16. Demands-abilities fit	3.93	.72	.01	.29**	.29**	.04	.08	.07	.13*	0	-.08	.26**	.18**	.17**	.34**	.42**	.66**	—	
17. Job competency	4.26	.59	0	.19**	.07	.05	.05	.09	.07	0	-.08	.03	.14*	.14*	.06	.16**	.32**	.45**	—
18. Intention to stay	3.28	.98	-.16*	.35**	.36**	.18**	.09	.15*	.11	.01	0	.13*	.25**	.26**	.31**	.47**	.49**	.34**	.18**

*Note.*  $N = 301$ . Organizational size was measured by the total number of employees in the organization and scaled by a logarithm function. Climate for developing older workers and age-inclusive climate were measured on 5-point scales from 1 = *strongly disagree* to 5 = *strongly agree*. Age was measured as chronological age. Gender was coded as 0 = male and 1 = female. Health was assessed by a 5-point scale from 1 = *very poor* to 5 = *excellent*. For monthly income, 1 = less than 500 euros, 2 = 500–1,000 euros, 3 = 1,000–1,500 euros, 4 = 1,500–2,000 euros, 5 = 2,000–2,500 euros, 6 = 2,500–3,000 euros, 7 = 3,000–3,500 euros, 8 = 3,500–4,000 euros, 9 = 4,000–4,500 euros, 10 = 4,500–5,000 euros, 11 = 5,000–7,500 euros, 12 = more than 7,500 euros. For total wealth, 1 = less than 5,000 euros, 2 = between 5,000 and 25,000 euros, 3 = between 25,000 and 50,000 euros, 4 = between 50,000 and 100,000 euros, 5 = between 100,000 and 250,000 euros, 6 = between 250,000 and 500,000 euros, 7 = more than 500,000 euros. Work hours per week was measured as the average number of work hours per week. Training availability was coded as 0 = unavailable and 1 = available. Relationship satisfaction was measured on a 7-point scale from 1 = *extremely dissatisfied* to 7 = *extremely satisfied*. Individual growth need was measured on a 5-point scale from 1 = *not important at all* to 5 = *very important*. Training participation, person-organization fit, needs-supplies fit, demands-abilities fit, job competency, and intention to stay were measured on 5-point scales from 1 = *strongly disagree* to 5 = *strongly agree*.  
\*  $p < .05$ . \*\*  $p < .01$ .



**Table 5**  
*Study 2: Unstandardized and Standardized Path Modeling Results (Main Effects)*

Variable	Training participation		Person-organization fit		Needs-supplies fit		Demands-abilities fit		Job competency		Intention to stay	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	3.20** (3.12**)	.04 (.13)	3.00** (3.98**)	.14 (.27)	3.49** (4.78**)	.15 (.30)	3.46** (4.82**)	.16 (.32)	4.32** (7.36**)	.14 (.38)	.69 (.71)	.45 (.47)
Organizational size	.00 (.01)	.03 (.06)	-.04* (-.11*)	.02 (.05)	.01 (.02)	.02 (.06)	.00 (.00)	.02 (.07)	.00 (-.01)	.02 (.07)	-.05 (-.09)	.03 (.06)
Sector (secondary)	.04 (.01)	.20 (.07)	-.18 (-.09)	.15 (.07)	-.20 (-.10)	.15 (.08)	-.11 (-.06)	.16 (.08)	.10 (.06)	.15 (.09)	.19 (.07)	.20 (.08)
Sector (tertiary)	.50** (.20**)	.19 (.08)	-.15 (-.08)	.14 (.08)	-.28 (-.16)	.15 (.09)	-.31* (-.18*)	.16 (.09)	.00 (.00)	.14 (.10)	.07 (.03)	.19 (.08)
Sector (public)	.60** (.29**)	.18 (.09)	-.01 (.00)	.14 (.09)	-.01 (-.01)	.15 (.10)	-.20 (-.14)	.15 (.11)	.03 (.03)	.14 (.12)	-.10 (-.05)	.19 (.10)
Age	.00 (-.01)	.02 (.05)	.01 (.04)	.01 (.05)	.01 (.03)	.01 (.05)	.00 (.00)	.01 (.06)	.01 (.03)	.01 (.06)	.06** (.17**)	.02 (.05)
Gender (0 = male, 1 = female)	.14 (.07)	.11 (.05)	.01 (.01)	.08 (.06)	.16 (.11)	.09 (.06)	.13 (.09)	.09 (.07)	.07 (.06)	.08 (.07)	.30** (.15**)	.11 (.06)
Education (secondary)	.13 (.06)	.32 (.14)	-.11 (-.07)	.24 (.14)	.38 (.24)	.25 (.15)	.28 (.17)	.27 (.17)	.11 (.09)	.23 (.18)	-.52 (-.24)	.32 (.15)
Education (tertiary)	.36 (.16)	.12 (.06)	-.31 (-.19)	.27 (.16)	.43 (.27)	.28 (.18)	.14 (.09)	.30 (.19)	-.08 (-.06)	.26 (.21)	-.80* (-.38*)	.36 (.17)
Skill level (medium)	.05 (.02)	.12 (.06)	-.06 (-.04)	.09 (.06)	.08 (.06)	.10 (.06)	-.09 (-.06)	.10 (.07)	-.03 (-.03)	.09 (.07)	.05 (.02)	.12 (.06)
Skill level (low)	.15 (-.06)	.23 (.09)	-.27 (-.14)	.17 (.09)	.24 (.13)	.18 (.10)	-.14 (-.08)	.20 (.11)	-.21 (-.14)	.17 (.12)	-.24 (-.10)	.24 (.10)
Health	-.05 (-.04)	.07 (.05)	-.02 (-.02)	.05 (.05)	-.01 (-.01)	.05 (.05)	.01 (.01)	.06 (.06)	.03 (.03)	.05 (.06)	.14* (.10*)	.07 (.05)
Income	.03 (.06)	.04 (.07)	.03 (.07)	.03 (.07)	.05 (.13)	.03 (.07)	.05 (.12)	.03 (.08)	.03 (.09)	.03 (.09)	.00 (.00)	.04 (.07)
Wealth	.02 (.03)	.03 (.05)	.04 (.09)	.02 (.05)	.00 (.00)	.02 (.05)	-.04 (-.09)	.02 (.05)	-.01 (-.03)	.02 (.06)	-.04 (-.07)	.03 (.05)
Work hours per week	.02 (.12)	.01 (.06)	.00 (.00)	.01 (.06)	.00 (.00)	.01 (.07)	-.01 (-.09)	.01 (.07)	-.01 (-.10)	.01 (.08)	.01 (.12)	.01 (.07)
Training availability	.65** (.29**)	.11 (.05)	-.06 (-.04)	.09 (.05)	-.03 (-.02)	.09 (.06)	.13 (.08)	.10 (.06)	-.02 (-.02)	.09 (.07)	-.01 (-.01)	.12 (.05)
Relationship satisfaction	.12** (.13**)	.05 (.05)	.07* (.10*)	.04 (.05)	.06 (.10)	.04 (.06)	.01 (.02)	.04 (.06)	.04 (.07)	.04 (.07)	.02 (.03)	.05 (.05)
Individual growth need	.33** (.20**)	.08 (.05)	-.01 (-.01)	.06 (.05)	.10 (.08)	.06 (.05)	.05 (.05)	.07 (.06)	.11* (.12*)	.06 (.06)	.21** (.13**)	.08 (.05)
Climate for developing older workers (CD)	.22** (.17**)	.07 (.06)	.22** (.24**)	.05 (.06)	.17** (.19**)	.06 (.06)	.08 (.10)	.06 (.07)	-.07 (-.10)	.05 (.07)	.05 (.04)	.08 (.06)
Age-inclusive climate (AC)	.16 (.12)	.08 (.06)	.21** (.21**)	.06 (.06)	.21** (.23**)	.06 (.07)	.09 (.10)	.07 (.07)	.15* (.20*)	.06 (.08)	.04 (.03)	.08 (.07)
Training participation			.17** (.23**)	.04 (.06)	.10* (.13*)	.05 (.06)	.15** (.21**)	.05 (.07)	-.02 (-.03)	.04 (.08)	.07 (.07)	.06 (.06)
Person-organization fit											.26** (.20**)	.09 (.07)
Needs-supplies fit											.38** (.28**)	.10 (.07)
Demands-abilities fit											.00 (.00)	.09 (.07)
Job competency											.01 (.01)	.09 (.05)
$R^2$	45.00%		44.00%		34.10%		20.80%		8.80%		40.00%	
$\Delta R^2$	7.30%		15.60%		12.10%		6.10%		2.10%		17.20%	

Note.  $N = 301$ . Standardized results are presented in parentheses.  $\Delta R^2$  denotes  $R^2$  change of a dependent variable from the control variable model to the current model. For sector, the reference group is other sectors; for education, the reference group is primary; and for skill level, the reference group is high-skilled. SE = standard error.  
\*  $p < .05$ . \*\*  $p < .01$ .

**Table 6**  
*Study 2: Unstandardized and Standardized Path Modeling Results (Interaction Effects)*

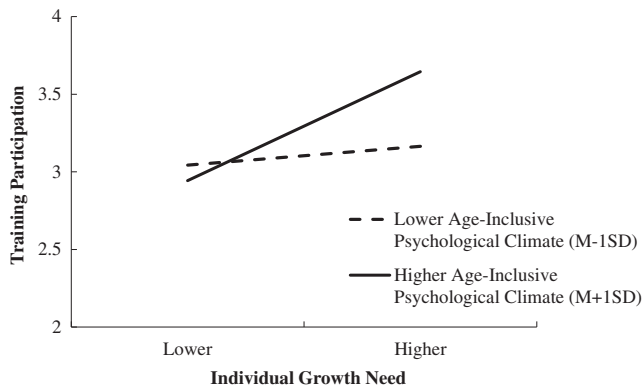
Variable	Training participation		Person-organization fit		Needs-supplies fit		Demands-abilities fit		Job competency		Intention to stay	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	3.20** (3.13**)	.05 (.14)	2.99** (3.96**)	.14 (.27)	3.48** (4.77**)	.15 (.30)	3.41** (4.75**)	.16 (.32)	4.30** (7.33**)	.14 (.38)	.69 (.71)	.45 (.47)
Organizational size	.00 (.01)	.03 (.05)	-.04* (-.11*)	.02 (.05)	.01 (.02)	.02 (.06)	.00 (-.01)	.02 (.07)	.00 (-.01)	.02 (.07)	-.05 (-.09)	.03 (.06)
Sector (secondary)	.04 (.02)	.20 (.07)	-.21 (-.10)	.15 (.07)	-.20 (-.10)	.16 (.08)	-.13 (-.07)	.16 (.08)	.08 (.05)	.15 (.09)	.20 (.08)	.20 (.08)
Sector (tertiary)	.53** (.21**)	.19 (.08)	-.13 (-.07)	.14 (.08)	-.29 (-.17)	.15 (.09)	-.33* (-.19*)	.16 (.09)	-.01 (-.01)	.14 (.10)	.07 (.03)	.20 (.08)
Sector (public)	.61** (.30**)	.18 (.09)	-.01 (.00)	.14 (.09)	-.02 (-.01)	.15 (.10)	-.22 (-.16)	.15 (.11)	.02 (.02)	.14 (.12)	-.10 (-.05)	.19 (.10)
Age	.00 (-.01)	.02 (.05)	.01 (.04)	.01 (.05)	.01 (.03)	.01 (.05)	.00 (.00)	.01 (.06)	.01 (.03)	.01 (.06)	.06** (.17**)	.02 (.05)
Gender (0 = male, 1 = female)	.14 (.07)	.11 (.05)	.01 (.01)	.08 (.05)	.16 (.11)	.09 (.06)	.13 (.09)	.09 (.06)	.06 (.05)	.08 (.07)	.30** (.15**)	.11 (.06)
Education (secondary)	.09 (.04)	.32 (.14)	-.16 (-.10)	.24 (.14)	.39 (.24)	.25 (.15)	.27 (.17)	.27 (.17)	.11 (.08)	.23 (.18)	-.52 (-.24)	.32 (.15)
Education (tertiary)	.30 (.13)	.36 (.16)	-.37 (-.23)	.27 (.16)	.44 (.28)	.28 (.18)	.15 (.09)	.30 (.19)	-.08 (-.06)	.27 (.21)	-.80** (-.38*)	.37 (.17)
Skill level (medium)	.05 (.02)	.12 (.06)	-.06 (-.04)	.09 (.06)	.08 (.06)	.10 (.06)	-.09 (-.06)	.10 (.07)	-.03 (-.03)	.09 (.07)	.05 (.03)	.12 (.06)
Skill level (low)	.15 (.06)	.23 (.09)	-.28 (-.15)	.17 (.09)	.24 (.13)	.18 (.10)	-.15 (-.08)	.19 (.11)	-.21 (-.14)	.17 (.12)	-.23 (-.10)	.24 (.10)
Health	-.06 (-.04)	.07 (.05)	-.02 (-.02)	.05 (.05)	-.01 (-.01)	.06 (.05)	.03 (.03)	.06 (.06)	-.03 (.04)	.05 (.06)	.14* (.10*)	.07 (.05)
Income	.03 (.06)	.04 (.07)	.03 (.07)	.03 (.07)	.05 (.13)	.03 (.07)	.04 (.11)	.03 (.08)	.03 (.09)	.03 (.09)	.00 (.00)	.04 (.07)
Wealth	.02 (.03)	.03 (.05)	.04 (.09)	.02 (.05)	.00 (.00)	.02 (.05)	-.03 (-.09)	.02 (.05)	-.01 (-.03)	.02 (.06)	-.04 (-.07)	.03 (.05)
Work hours per week	.01 (.12)	.01 (.06)	.00 (-.01)	.01 (.06)	.00 (.00)	.01 (.07)	-.01 (-.09)	.01 (.07)	-.01 (-.10)	.01 (.08)	.01 (.12)	.01 (.07)
Training availability	.66** (.29**)	.11 (.05)	-.05 (-.03)	.09 (.05)	-.03 (-.02)	.09 (.06)	.12 (.08)	.10 (.06)	-.02 (-.02)	.09 (.07)	-.01 (-.01)	.12 (.05)
Relationship satisfaction	.14** (.15**)	.05 (.05)	.07 (.10)	.04 (.05)	.06 (.09)	.04 (.06)	.00 (.00)	.04 (.06)	.03 (.06)	.04 (.07)	.03 (.03)	.05 (.06)
Individual growth need	.33** (.20**)	.08 (.05)	-.03 (-.02)	.06 (.05)	.10 (.08)	.06 (.05)	.04 (.03)	.07 (.06)	.11 (.11)	.06 (.06)	.21** (.14**)	.08 (.05)
Climate for developing older workers (CD)	.24** (.19**)	.07 (.06)	.21** (.23**)	.06 (.06)	.17** (.19**)	.06 (.07)	.05 (.05)	.06 (.07)	-.09 (-.12)	.06 (.08)	.05 (.04)	.08 (.07)
Age-inclusive climate (AC)	.12 (.09)	.08 (.06)	.20** (.21**)	.06 (.06)	.22** (.23**)	.07 (.07)	.12 (.13)	.07 (.07)	.16** (.21**)	.06 (.08)	.04 (.03)	.09 (.07)
Individual Growth Need x CD	-.19 (-.09)	.14 (.06)	.12 (.08)	.10 (.06)	.02 (.01)	.11 (.07)	.29* (.19*)	.11 (.07)	-.12 (.10)	.10 (.08)	-.05 (-.02)	.14 (.07)
Individual Growth Need x AC	.28* (.12*)	.14 (.06)	.03 (.02)	.11 (.06)	-.04 (-.02)	.11 (.07)	-.23 (-.14)	.12 (.07)	-.10 (-.07)	.10 (.08)	.04 (.02)	.14 (.07)
Training participation			.17** (.23**)	.04 (.06)	.10* (.14*)	.05 (.06)	.16** (.23**)	.05 (.07)	-.01 (-.02)	.04 (.08)	.07 (.07)	.06 (.06)
Person-organization fit											.26** (.20**)	.09 (.07)
Needs-supplies fit											.37** (.28**)	.10 (.07)
Demands-abilities fit											.00 (.00)	.09 (.07)
Job competency											.01 (.01)	.09 (.05)
R <sup>2</sup>	45.60%		44.70%		34.10%		22.40%		9.30%		40.00%	
ΔR <sup>2</sup>	.60%		.70%		.00%		1.60%		.50%		.00%	

Note. N = 301. Standardized results are presented in parentheses. ΔR<sup>2</sup> denotes R<sup>2</sup> change of a dependent variable from the main effect model to the reference model. For sector, the reference group is other sectors; for education, the reference group is primary; and for skill level, the reference group is high-skilled. SE = standard error.

\* p < .05. \*\* p < .01.

**Figure 4**

Study 2: Interaction of Individual Growth Need and Age-Inclusive Psychological Climate on Training Participation



the mean), the indirect effect of individual growth need on intention to stay via the sequential mediation of training participation and person-organization fit was .004 (95% CI = [-.008, .02]). The difference between the two was significant, as the 95% CI [.0003, .05] excluded zero. Thus, we found support for Hypothesis 11a. When age-inclusive psychological climate was higher (1 *SD* above the mean), the indirect effect of individual growth need on intention to stay via the sequential mediation of training participation and needs-supplies fit was .02 (95% CI = [.001, .05]). When age-inclusive psychological climate was lower (1 *SD* below the mean), the indirect effect of individual growth need on intention to stay via the sequential mediation of training participation and needs-supplies fit was .004 (95% CI = [-.001, .02]). The difference between the two was not significant, as the 95% CI [-.001, .05] included zero. Thus, Hypothesis 11b was not supported.

## Discussion

Study 2 largely replicated the findings from Study 1. Moving beyond Study 1, we found that person-organization fit and needs-supplies fit mediated the relationship between training participation and intention to stay. Study 2 has several improvements over Study 1. First, established scales were used to measure main study variables. Second, instead of relying upon a dichotomous measure, training participation was measured with scale items to capture the levels of training participation. Third, we were able to test possible mediating mechanisms through which training participation relates to intention to stay. Nevertheless, this study has three limitations. First, it lacked a multilevel data structure and only self-reported psychological climates were available. Second, ideally, testing the mediators underlying training participation and intention to stay would require a three-wave data collection to temporally separate the independent variable (training participation), mediators (person-organization fit, needs-supplies fit, demands-abilities fit, and job competency), and dependent variable (intention to stay; Maxwell & Cole, 2007; Maxwell et al., 2011). The high-quality LISS panel infrastructure allowed us to collect data among the hard-to-reach sample of retirement-eligible workers, yet only two waves of data collection were possible. On the one hand, it is possible that people with better fit or higher competency are more motivated to or

capable of participating in training, warranting the importance of separating the measurement timing of training participation from the mediators. On the other hand, there is a lack of theoretical or empirical evidence regarding how intention to stay may reversely impact one's fit perceptions or job competency. Indeed, turnover theories typically argue that job attitudes, work motivation, and employee relationships influence one's intention to leave/stay, which in turn relates to actual decision to leave/stay (Hom et al., 2012, 2017). Given that the reverse causality of the mediators-dependent variable relationship is difficult to justify, measuring these constructs at the same time seems less concerning. Overall, we consider it more critical to separate the measurement time of the independent variable from the mediators to rigorously test the relationships. Last, we were only able to examine intention to stay. Because older workers' actual retention decisions may deviate from reported intention (Dingemans & Henkens, 2014; Wang et al., 2008), we call for studies to replicate our findings with a longitudinal design that temporally separates measures and captures actual decision to stay.

## General Discussion

### Theoretical and Practical Implications

This research offers several theoretical implications. First, controlling for the socioemotional factor (i.e., relationship satisfaction at work), we revealed the human capital development pathway (i.e., training participation) for retaining retirement-eligible workers. To enrich current understanding of this pathway, we identified individual growth need and organizational climates as individual and organizational factors related to training participation and ultimately retention. Moreover, we tested four possible mediating mechanisms for the relationship between training participation and retention. In line with the motivated choice framework (Kanfer et al., 2013), we found that person-organization fit and needs-supplies fit mediated the positive relationship between training participation and intention to stay. Although training participation was positively associated with demands-abilities fit, demands-abilities fit was unrelated to intention to stay. One explanation is that being capable of handling job demands does not necessarily indicate older workers' willingness or motivation of continuing employment, especially when they have the option to retire (Kanfer et al., 2013). Last, training participation did not relate to job competency and job competency did not relate to intention to stay. One explanation is that older workers who are retirement-eligible but intend to stay in the organization typically have relatively high job competency ( $M = 4.26$  in our case), which causes a range restriction and reduces the likelihood of detecting significant relationships. Taken together, by examining factors and mechanisms associated with training participation, we offer insights into the human capital development pathway for retaining retirement-eligible workers.

Moreover, this research differs from others in that we adopted a multilevel perspective to investigate the roles of organizational climates for retaining retirement-eligible workers. While previous research has predominantly focused on individual-level antecedents (Beehr & Bennett, 2015), the motivated choice framework suggests considering older workers' retention decisions as a joint function of individual-level psychological factors and organization-level contextual factors (Kanfer et al., 2013). Our study fills this void

by examining climate for developing older workers and age-inclusive climate as two important contextual factors. Specifically, consistent with our hypotheses, climate for developing older workers had a positive indirect relationship with retention through the mediation of training participation. Meanwhile, age-inclusive climate served as a cross-level moderator that amplified the positive association of individual growth need with training participation and subsequently retention.

Diverging from our hypotheses, we did not find a positive relationship between age-inclusive climate and training participation or cross-level moderation of climate for developing older workers on the relationship between individual growth need and training participation. One explanation for the nonsignificant trickle-down effect of age-inclusive climate is that older workers have multiple ways to reciprocate in exchange for inclusive treatment from their organization (e.g., improving work engagement or extending work hours; Li, Kleshinski, et al., 2021) and participating in training seems to be a rather distal reciprocation. In terms of the nonsignificant cross-level moderation of climate for developing older workers, one explanation is that a pronounced climate typically creates a strong situation that suppresses the expression of individual differences (Bowen & Ostroff, 2004; Mischel, 1997). Following this logic, in organizations that prioritize and encourage older workers' learning and development, older workers are likely to feel obligated to participate in training regardless of their personal growth needs. Taken together, our result patterns suggest that these two climates function differently. While an age-specific climate for developing older workers likely facilitates training participation for all retirement-eligible workers, an age-inclusive climate may tend to elicit training participation for those with higher growth needs.

In addition, this research contributes to the literature on retirement and successful ageing at work. Prior retirement studies have identified a variety of factors that relate to older workers' tendency to remain in or retire from the workforce, such as individual characteristics (e.g., health, financial status, and personal preferences; Adams, 1999; Beehr et al., 2000; Shultz et al., 1998), work conditions (e.g., job control, job demands, and job resources; Heponiemi et al., 2008; McGonagle et al., 2015), and macroenvironmental factors (e.g., pension systems and social norms; García-Pérez et al., 2013; Settersten & Hagestad, 1996). Yet, little research attention has been paid to investigating the implications of training participation for older worker retention or retirement. Therefore, the current research adds to the literature by pinpointing training participation as a pathway for retaining older workers. Notably, our focus on the decision/intention to stay in the current organization differs to some extent from the decision/intention to continue working (vs. retire). While the latter focuses on individuals' workforce participation/exit—primarily driven by individual attributes, job factors, family factors, and socioeconomic factors (see Wang & Shultz, 2010, for a review)—we focus on older workers' decision/intention to work for the current organization after reaching retirement age, which reflects the success of an organization to retain retirement-eligible workers. As such, our variable of interest hints at the importance of taking an organizational perspective to study how to facilitate the retention of older workers when they have the option to retire. In addition, the literature on successful ageing at work (i.e., the maintenance of high levels of health, motivation, and work ability among older workers; Kooij, 2015) suggests the

importance of maintaining older workers' job-related functional capacity to continue working through training activities. Our study provides empirical evidence that training participation helps organizations retain retirement-eligible workers (Kooij et al., 2020).

Last, our study adds to the broader training literature. As employees often have a choice whether to participate in training and development, identifying factors that relate to individual participation in developmental activities has been an important research stream in the training literature (see Bell et al., 2017, for a review). Although positive climates were found to relate to trainee motivation and posttraining behaviors (Colquitt et al., 2000; Tracey et al., 1995), the association between organizational climates and employee decisions to participate in training lacks investigation, let alone the cross-level interaction between organizational climates and individual characteristics. As such, our research enriches the current knowledge of how organizational contexts relate to employee participation in training activities.

This study provides practical implications for managing and retaining retirement-eligible workers. First, based on our findings, training participation may serve as a human capital development pathway for organizations to retain older workers who have reached retirement age. Retirement-eligible workers often face constraints at the workplace (e.g., skill depreciation due to technological changes and low investments in human capital; Daveri & Maliranta, 2007) that discourage them from continuing employment. Continuous learning through training participation is pivotal for overcoming such difficulties and removing the barriers to extending their work lives in the current organization (Visser et al., 2021). To facilitate older workers' training participation, organizations may consider promoting equal access to training opportunities regardless of employee age (Froidevaux et al., 2020). In addition, organizations may adopt an age-conscious approach and design training programs tailored to the needs of different age-groups to improve training participation across age-groups (Boehm et al., 2021; Fuller & Unwin, 2005). Second, our study suggests that it is important for organizations to cultivate a climate that prioritizes and encourages older workers' learning and development, because it may directly facilitate training participation and thus allow organizations to retain older workers after reaching retirement age. Hence, organizations should develop human resource management systems that underscore learning and development—for example, through delivering consistent messages on the importance of training and development, improving the visibility of and access to training opportunities across different age-groups, and encouraging and rewarding employees' learning behaviors (Bowen & Ostroff, 2004; Li, Koopmann, et al., 2022). Third, this study showed that age-inclusive climate could amplify the positive relationship between individual growth need and training participation among retirement-eligible workers. Therefore, organizations are advised to implement age-inclusive management and treat employees of all ages fairly and inclusively (Boehm et al., 2021). For example, organizations may implement equitable employment practices, integrate employee differences, and include age-diverse employees in important decision-making processes (Li, Shao, et al., 2022; Nishii, 2013).

### Limitations and Future Research Directions

This study has several limitations, which point to future research directions. First, due to the restriction of the data, we were unable

to capture the content of older workers' training activities. For a more in-depth understanding of the human capital development pathway, we suggest future research investigate older workers' participation in different types of training activities (e.g., maintenance-based vs. growth-based training or skill-based vs. task-based training). In addition to training, researchers could also investigate other human capital development channels that drive older workers' retention decisions. As an example, work designs such as job rotation and job enrichment may be viable pathways for supporting the developmental needs of older workers (Bal et al., 2013). Second, this study focuses on climate for developing older workers and age-inclusive climate as two organizational factors. Future studies may consider the implications of other types of organizational climates (e.g., psychological safety climate; Edmondson & Lei, 2014) or practices (e.g., high involvement work system; Li et al., 2018). Last, as we tested our hypotheses in the Dutch context, it remains unclear whether our conclusion can be generalized to other countries, given cross-country variability in retirement systems. Notably, due to limited early retirement opportunities and mandatory retirement when reaching the public pension age, employees in the Netherlands typically choose to retire between 60 and 67. Thus, similar to many other European countries (e.g., France and Germany), the Dutch retirement system clearly creates a range restriction for employees' lengths of working lives, providing a relatively conservative test for our hypotheses. Accordingly, we expect a stronger association between training participation and retention in countries where employees have more autonomy in determining their lengths of working lives (e.g., countries without mandatory retirement such as the United States and Canada or countries with more early retirement opportunities such as the U.K. and China).

### Conclusion

To better understand forces underlying the retention of retirement-eligible older workers, this study goes beyond socio-emotional factors to study the human capital development pathway (i.e., training participation). Guided by the motivated choice framework, we uncover the joint implications of individual growth need and organizational climates for training participation and ultimately the retention of retirement-eligible workers. Our work highlights the importance for organizations to encourage and facilitate training participation to recharge and retain employees who are retirement-eligible.

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