

## RESEARCH ARTICLE

# When time is running out: A growth curve analysis of older workers' retirement intentions

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## Summary

Using dynamic theory and methods, we investigate the phenomenon of older workers who withdraw from paid work while still healthy. We focus on intention to retire as the penultimate stage in the retirement process. We extend socio-emotional selectivity theory to explain the growth of intention to retire. Older workers have a rising perception of time running out but good health allows for an ongoing choice between remaining in work or active retirement. While, in general, older people in poor health have a greater intention to retire than those in good health, we hypothesize that the passage of time motivates the healthy to increase their intention to retire, especially when manager support is low. We examine longitudinal data consisting of three waves of survey responses (2011, 2012, and 2013) from 495 workers in their 50th year and older. We employ growth curve analysis (random coefficient modeling). The findings show that over a 2-year period, in contrast to other older workers whose retirement intention remains stable, individuals in consistently good health but with low manager support demonstrate a growth in intention to retire. That is, we identify the “queue jumpers”: those workers who speeded up their retirement process relative to other older workers.

## KEYWORDS

health, manager support, older workers, random coefficient modeling, retirement, socio-emotional selectivity theory

## 1 | INTRODUCTION

Retirement is one of life's important transitions. It involves a process in which an individual's attitudes and intentions adjust over time to withdrawal from paid work (Griffin et al., 2016; Hulin, 1991). Poor health is a major factor associated with retirement (Fisher et al., 2016). The assumption that many older workers anticipate a period of respite and care at the end of their life is a basic premise of most retirement theories (Griffin et al., 2012). Medical evidence

demonstrates that rapid deteriorations in health set in around the age of 50 years (Carstensen, 2006; Truxillo et al., 2015). Although people worldwide are living longer, there is little evidence that older people today are experiencing their later years in better health than their parents (Eberhardt & Carstensen, 2021; World Health Organization [WHO], 2018). As an older person's health declines, a progression toward withdrawal from work should benefit both the individual seeking a period of relaxation and also the organization seeking to retain only the healthiest of its older workers.

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In the last few decades, however, a different phenomenon has been observed. In his study of 16 countries in North America, Europe, and Australasia, Laslett (1991) reported that some workers retire before experiencing poor health in order to lead active lives, even taking up new interests or challenges. He described a “third age” of personal achievement and fulfillment in the human lifespan: an interlude experienced mainly by older people with health and vigor, usually occurring between withdrawal from paid employment and the final stage of life. Laslett’s observations might help explain why, despite increases in life expectancy, there has also been a decline in retirement age with current levels in most developed countries below those of the 1960s and 1970s (Organisation for Economic Co-operation and Development [OECD], 2021). However, theory has not been proposed to explain this phenomenon and active retirees have not been statistically identified. Such an investigation is important as a rising proportion of the labor force consists of older workers. Increasing longevity and the high postwar birth rate have helped bring about their growing representation (OECD, 2022). If some older workers make plans to retire earlier than their health might warrant, organizations might be losing the engagement—and eventually, the participation—of the most energetic members of a large part of their workforce (Kulik et al., 2016). Unfortunately, their existence might be “drowned out” or subsumed in conventional static empirical studies where the need for respite motivates the retirement process of most workers at any point in time.

Thus, researchers have suggested that in the absence of dynamic studies—with time-based explanations and investigations—some important subpopulations will remain undetected (Wang, 2007; Wang & Bodner, 2007). The term dynamic refers to change. In this study, we examine the change over time in intention to retire. Most retirement studies are static or non-dynamic. In general, they examine the relationship between explanatory variables at one point in time with an outcome variable at a future point in time, but a static approach cannot identify the characteristics of those older workers who move *across* time toward retirement faster than might be expected: the “queue jumpers.” Such individuals can only be identified by the relative pace of their retirement process. In a rare dynamic study, Wang (2007) identified the previously unestablished association of subgroups of older workers with different patterns of postretirement temporal adjustment. Yet, there is no comparable preretirement investigation. To help fill this gap, we conduct a dynamic study to investigate whether, over a period of time, the retirement intention of some older workers increases more quickly than that of others. Such an increase would indicate a speedier move to eventual withdrawal and might help explain recent retirement trends. In response, management might wish to take steps to slow down the retirement process of the potentially most productive of its older workers.

We focus on intention to retire in the form of withdrawal from paid working life (Adams & Beehr, 1998; Griffin et al., 2016; Hanisch, 1995; Hanisch & Hulin, 1990a, 1990b; Hulin, 1991; Shultz & Wang, 2011). Withdrawal is manifest in reducing hours or stopping work (Desmette & Gaillard, 2008; Eden & Jacobson, 1976;

Gaillard & Desmette, 2008). By examining intention—the stage in the retirement process that occurs prior to actual withdrawal behavior—we can provide information so interventions might be considered *before* the event. In the past, researchers often measured retirement intention with reference to a fixed age measure, that is, when age-related pensions became available (Chen & Gardiner, 2019). However, increasing life expectancy, changes in wealth and income, and ongoing rises in age thresholds of pension eligibility mean there is no longer a customary endpoint to employment in many developed countries (Fisher et al., 2016). By 2018, there was a wide range of retirement ages in almost all OECD countries with an average below the traditional pension age (OECD, 2021). Although there are differences between countries in social norms, cultural expectations, and legal regulations (Rudolph et al., 2018), in a given context, the scheduling of an individual’s retirement relies largely on personal circumstances (Shultz & Wang, 2011). For example, pensions no longer greatly influence retirement intention in Australia (Oakman & Howie, 2013).

In order to investigate the growth over time in older workers’ intention to retire, we use Carstensen’s socio-emotional selectivity theory, a body of work summarized in *Science* 2006 (e.g., Carstensen, 2006; Carstensen et al., 1999, 2003; Lang & Carstensen, 2002; Lockenhoff & Carstensen, 2004). Socio-emotional selectivity theory is innovative because it introduces the perception of the passage of time as a motivating variable. For Carstensen, there is a growing awareness by older people that life is finite. In response, while younger adults emphasize knowledge gathering and career development, older adults increasingly prioritize emotionally meaningful goals (Lockenhoff & Carstensen, 2004). Such theory lends itself to explanations of withdrawal from work. Nevertheless, very few retirement studies have employed this theoretical approach (Fasbender et al., 2019; Griffin et al., 2012; Weiss et al., 2022). In our study, we use this framework to help explain variations in change over time in older workers’ retirement intentions, focusing on health and manager support.

Although health is a well-researched predictor in static studies, we conduct a new investigation by examining its dynamic or temporal association with intention to retire. While older workers in poor health look for respite or care in retirement, it is rarely considered that those in good health may have a choice denied to their poor health counterparts. Healthy older people may pursue emotionally meaningful goals while remaining at work or by participating in *active* retirement (Griffin et al., 2012). The growing perception of finite time motivates them to consider these options in an ongoing process. We also examine the moderating association of manager (i.e., supervisor) support with this temporal relationship. While there are several retirement studies of organizational support in the form of human resource (HR) practices (e.g., Jiang et al., 2021; Knies et al., 2015; Pak et al., 2021), there are sparse investigations of manager support and older workers (e.g., Leisink & Knies, 2011) and no major investigation of manager support of older workers with varying levels of health. This lack of research is surprising. Organizational support is more highly valued by workers if it helps fulfill their socio-emotional needs

(Rhoades & Eisenberger, 2002), and by means of their personal interactions with workers, managers are well-positioned to provide such support (Bal & Jansen, 2015). In a dynamic context, manager support might be very important for healthy older workers faced with the growing perception of finite time and a continuing choice between work and active leisure.

In terms of methods, we use growth curve analysis in the form of random coefficient modeling (RCM), a regression technique. RCM is unique among growth models in that it allows researchers to directly investigate temporal change by examining the influence of time in its own right. A “time” variable is constructed with values that indicate the sequence of waves of longitudinal data. Variables that are predicted to influence temporal change in the outcome variable are included in separate interactions with the time variable. Thus, RCM “can be viewed as modeling interactions [of explanatory variables] with time” (Biesanz et al., 2004, p. 41). As RCM is complex and the models are difficult to fit, there have been few studies in organizational research (e.g., Belschak et al., 2020; Harold & Ployhart, 2008; Holtz & Harold, 2009). We use Bliese and Ployhart's (2002) steps procedure to build a valid random coefficient model and conduct subsequent hypothesis testing.

We collected three waves of longitudinal data, satisfying the condition that three or more repeated measures are needed to conduct RCM (Ployhart & Vandenberg, 2010). The data consist of survey responses (2011, 2012, and 2013) from 495 employees in Australian workplaces in their 50th year or older at the start of the survey. Australia is a valuable place to carry out our study. A government investigation found that “a new stage of life is emerging between the end of the conventional working age and the onset of old age” for some retirees who lead “vibrant, active lives” (Australian Bureau of Statistics [ABS], 2016). There is also a broad range of retirement ages. In 2019, people aged 65 years and older constituted 29% of the workforce (ABS, 2019a), yet the average age of retirement for workers employed at 45 years was just over 55 years (Australian Institute of Health and Welfare, 2018). Australia has a government-supported health system whereby medical care is not tied to employment and most health issues encountered by retired persons can be addressed without great financial burden.

We used socio-emotional selectivity theory with RCM to investigate the following research questions: *What is the relationship between the passage of time and intention to retire? What is the temporal relationship between health and intention to retire? Does manager support moderate the temporal relationship between health and intention to retire?*

## 2 | THEORY AND HYPOTHESES

### 2.1 | Intention to retire

Most retirement theories view withdrawal from paid working life as a process in which attitudes and intentions are formed and developed (for recent reviews, see Fisher et al., 2016; Wang & Shi, 2014; Wang &

Shultz, 2010). The common underlying theme is an individual's appraisal—often unconscious and ongoing—of the advantages of continuing in paid work compared with withdrawal from working life. Instrumental theories focus on the acquisition of sufficient resources. For example, rational choice theory (e.g., Hatcher, 2003) is concerned with money and proposes workers retire when they can support themselves financially without paid work. Expectancy theory (e.g., Kim, 2003) extends rational choice to include nonfinancial issues. Similarly, conservation of resources theory holds that people develop a range of resources throughout their lives (e.g., Pak et al., 2021) and retire when they have accumulated enough to support themselves. Psychological theories stress the importance of adjustment to retirement. Identity theory is concerned with changes in self-image (e.g., Feldman, 1994) whereby retirement might come about when an older person develops a negative self-image as a worker and/or accepts a positive identity of being a retired older person. Role theory adopts a similar approach to identity theory but in relation to the influence of other people's perceptions (e.g., Barnes-Farrell, 2003): workers may move toward retirement when they feel challenged by others, say in the growing ineffectiveness of their role as a provider. Consistency theory (e.g., Atchley, 1989) emphasizes the need for continuity in life structures so older workers are more likely to retire when they find a bridge into retirement, for example, by reducing their hours of work. For the most part, these theories are noncompeting, and some studies have integrated aspects of several theories, describing factors that encourage withdrawal as “push” factors and incentives to retire as “pull” factors (Bamberger & Bacharach, 2014; Shultz et al., 1998; Wang, 2007). Finally, the meaning of work is the degree to which persons value their work (Spreitzer, 1995). People derive meaning from a variety of individual-based instrumental and psychological factors (Pratt & Ashforth, 2003). For example, those who value their work for its monetary rewards derive financial meaning (Fasbender et al., 2016). Work ceases to deliver meaning when it loses its ability to offer associated advantages and so retirement progressively becomes more attractive.

In the past, empirical investigations of intention to retire based on these perspectives often focused on early retirement in relation to the eligibility age of retirement pensions (Chen & Gardiner, 2019). In general, findings showed that health, wealth, workplace-related factors, and family variables were major predictors, but recent changes in social norms have weakened the imperative of an externally imposed retirement age and there may be more important sources of motivation that have not been considered (Fisher et al., 2016) and help explain temporal variation in the retirement process.

### 2.2 | Socio-emotional selectivity theory: Intention to retire and the passage of time

Socio-emotional selectivity theory introduces a new motivating variable to the retirement process in the form of the passage of time. Growing awareness that life is finite sets in at around 50 years

when “almost every physiological and biological process” starts to show evidence of an acceleration in decline (Charles & Carstensen, 2010, p. 392). An extensive review of the literature presented similar findings, with disability likelihood increasing significantly for those beyond age 50 (Truxillo et al., 2015). This lower age limit of older workers is applied in major government surveys. The Australian Human Rights Commission investigates persons of 50 years and older (AIHW, 2018). In Britain, the official English Living Standards Longitudinal Study of Aging Workers conducts a biennial survey of individuals 50 years and more. From around the age of 50, each year that passes makes older people more aware that they are closer to the end of life. As time goes by, there is an increasing subjective sense of less time remaining and a growing awareness that life will end.

In response, older people adjust their goals and resource priorities. “As time horizons grow shorter, people are in some sense relieved of the burden of preparing for the future” (Charles & Carstensen, 2010, p. 39). The growing awareness of time running out can be viewed as a central motivation in the development of intention to retire. Older people become less concerned with future-oriented goals and, instead, pursue a narrower range of present-oriented goals (Carstensen, 2006). Rather than searching for long-term payoffs from knowledge expansion through a wide range of networks, they increasingly restrict their interests to shorter-term goals and personal ties. For older workers in general, “relationships with family and friends assume unmatched importance” (Carstensen et al., 2003, p. 104). Although there are no dynamic studies of whether the passage of time motivates the retirement process, a few have adopted a static perspective that a person's awareness of future time helps drive current choices in anticipation of future events (Kooij et al., 2018). They show that perception of the amount of time left—shorter subjective life expectancy—positively influences retirement intention/planning (Fasbender et al., 2019; Griffin et al., 2012; Van Solinge & Henkens, 2010).

**Hypothesis 1.** As time goes by, older workers' intention to retire will increase.

### 2.3 | The relationship of health with intention to retire over time

Research shows that, at any point in time, older workers in poor health have a greater intention to retire than those in good health (Fisher et al., 2016). So, what contribution does socio-emotional selectivity theory make to our current understanding of the association between health and retirement? It helps explain the well-known health-retirement association within a dynamic perspective. A fundamental tenet of socio-emotional selectivity theory is that “time perspective, not chronological age,” drives motivational changes in adulthood (Lockenhoff & Carstensen, 2004, p. 1396). Health rather than age is a major influence on the awareness of passing time. For older workers, actual age has little to do with

physical and mental deterioration (Eberhardt & Carstensen, 2021). In support, the WHO reported that, for the older age group, health is only loosely associated with a person's age in years (WHO, 2018). Thus, regardless of age, older workers who feel they are in good health might maintain some longer-term goals while those who feel they have poor health seek shorter-term goals. Moreover, it is self-assessed health rather than absolute health that promotes the awareness of the amount of time left (Kooij & Van De Voorde, 2011). Older people develop unique mental models of their own longevity in which perception of their personal health plays a major part (Griffin et al., 2013). Carstensen and colleagues stress that the acceleration in the decline in biological processes—in health—increases the perception of finite time in all older workers. By extension, variability in self-perceived health among older workers should lead to variations in their perception of finite time. Such variability will result in individual variations in their temporal change of retirement intention.

Self-assessed health also affects individuals' mental models, not just of future time, but of the quality of life that might be enjoyed during the future. In this way, individuals form a perception of a future self (Griffin et al., 2016). The passage of time—constantly alerting all older workers to the diminishing amount of life left to them—motivates ongoing consideration of work or retirement for those who have a choice. Good health allows for such a choice. Older workers in good health might perceive a future in which some work-based knowledge and networks are maintained or a future in which an active, self-fulfilling third age lifestyle is adopted during the period following retirement (Laslett, 1991). Amid the uncertainty of whether health will remain good, active retirement becomes more valuable for those in good health as the amount of expected future time decreases in which it can be enjoyed. Over time, good health leads to progression from a preference for work to a preference for active retirement because, as each year passes, there will be less time to enjoy the leisure pursuits in which they can still actively participate. The perception of time running out, therefore, increasingly encourages people in good health to undertake active retirement which can act as a stepping stone before respite and care are sought. In contrast, older people in poor health have much less choice about working or retiring. The passage of time gives them perceptions of limited longevity in which retirement for comfort is the only option. Thus, while all older workers perceive they have a constantly diminishing amount of remaining time, healthy workers are continually prompted to weigh up how much they value work relative to active retirement. There is little empirical investigation of this issue. A qualitative study showed that, while poor health played a major role in early retirement, some people in good health also retired early “to enjoy life while their health still allowed them to do so” (De Wind et al., 2013, pp. 6–7).

In summary, conventional theory holds that the poorer the health, the greater the intention to retire. We use socio-emotional selectivity theory to propose that, within this well-known health-intention relationship, a speeding up of the retirement process takes place for some workers. The better the health, the greater the

choice of alternative futures and—as time passes—the greater the motivation for those in good health to participate in active retirement before time runs out.

**Hypothesis 2.** As time goes by, the better the health, the greater the increase in intention to retire.

## 2.4 | Manager support as a moderator

Socio-emotional selectivity theory emphasizes the importance of close personal relationships. For older people, future time perspective is limited and “emotionally meaningful goals become more salient and familiar social partners are preferred” (Lockenhoff & Carstensen, 2004, p. 1401). Over time, therefore, the meaning of work becomes increasingly social-based rather than individual-based: concerned with social relationships rather than individual instrumental and psychological factors. The “social meaning” of work becomes the most important, reflecting “the need for social contact with others” (Fasbender et al., 2016, p. 13). Managers play an important role in establishing and developing social contacts at the workplace. They have personal relationships with employees (Bal & Jansen, 2015) and help deliver what workers need socio-emotionally from the organization (Rhoades & Eisenberger, 2002). Thus, manager support is defined in socio-emotional terms: the perception by employees of how much managers “value their contributions and care about their well-being” (Eisenberger et al., 2002, p. 565).

In carrying out their support role, managers are organizational agents (Rhoades & Eisenberger, 2002). They are key interpreters of organizational obligations and implementers of employment practices (McDermott et al., 2013). A recent review reported that while line managers may make local modifications to employment practices, they do so within the framework of carrying out their corporate HR roles and responsibilities (Kehoe & Han, 2020). Employees, therefore, view manager support as indicative of organizational support (Eisenberger et al., 1986).

Older workers benefit from manager support in fostering beneficial workplace relationships (Leisink & Knies, 2011). While Carstensen argued that age has little importance in shaping an older worker's perception of finite time, age helps shape the attitudes and behavior of colleagues and management toward older workers. Both employers and employees think that older workers are less productive than younger workers (Van Dalen et al., 2010). Many employers believe older workers are overpaid and can be replaced with younger workers who can do the job just as well (Bersin & Chamorro-Premuzic, 2019). Most managers prefer to have a majority of younger employees “and legitimize this through negative stereotypes of older workers lacking flexibility, creativity, ambition and performance” (Leisink & Knies, 2011, p. 1906). Older workers may feel excluded from younger cohort activities (Bamberger & Bacharach, 2014) and those with limited opportunities to interact with others are more likely to retire (Beehr et al.,

2000). They may face discriminatory attitudes. Over a quarter (26%) of Australians aged 50 years and older reported they had experienced some form of employment-related discrimination (Diseris et al., 2021). Moreover, for some individuals, positive workplace relationships may become even more important if older workers' nonwork relationships decline (Fasbender et al., 2016). Thus, at the very time of life when relationships have increasing meaning for older workers, they may face age-related negative attitudes at their workplace. Persistent or growing age discriminatory practices can push older workers toward retirement (Armstrong-Stassen & Schlosser, 2008).

Yet, by means of the socio-emotional functions of manager support, organizations can help counterbalance the risk of age discrimination and maintain meaningful relationships at work for older employees. Managers operate within a network of social relationships. Such networks arise from the key position that managers hold in the organization, spanning several groups or units and acting as linking pins (Graen et al., 1977). Thus, managers are in a prime position to offer social support to older workers (Wang & Shultz, 2010). Social support is a “process involving active interplay between a focal person [in this case, the older worker] and his or her support network” (Vaux, 1988, pp. 29–30). It arises from social relationships and is characterized by managers who provide tangible rewards and services and also express affection and valuation (Vaux, 1988). Such managers provide job-related information and assistance and also help in dealing with disappointment and personal problems (House, 1981). They advocate for their subordinates across relationship networks, encouraging “active interplay” between workers and their support network (Vaux, 1988, 29–30), for example, involving coworkers in giving praise (House, 1981). Positive social interactions on a regular basis may weaken stereotypes (Leisink & Knies, 2011).

From the perspective of socio-emotional selectivity theory, manager support will moderate the *temporal* relationship between health and intention to retire. As active retirement becomes more attractive to the healthy, such workers need a high level of support to resist its appeal. With low manager support, workplace relationships may decline, and future life may be better enjoyed in nonwork pursuits. Active retirement might offer new friendships or inclusion in community groups. These relationships provide information and opportunities for “novel behaviors and diversion” (Fingerman, 2009, p. 81) and may persist into the final stage of life (Hillman, 2013). In contrast, however, older workers in poor health have relatively low interest in developing careers or networks of work relationships and so are generally unaffected in their retirement intention by levels of manager support regardless of the passage of time. They are more likely to benefit from nonwork, close personal relationships that provide emotional and/or physical care.

**Hypothesis 3.** In a context of low manager support, good health will have an increasingly positive relationship with intention to retire as time goes by.



### 3 | METHOD

#### 3.1 | Data

The longitudinal data used in this study were collected as part of a large national project investigating the experiences of older workers in Australia. Workers were recruited by newspaper advertisements in the three major cities of Adelaide, Melbourne, and Sydney. Participants completed surveys either online or in hard copy and provided information about themselves, their jobs, and their employers. Surveys were distributed in three waves: August–October 2011, April–June 2012, and April–June 2013. This study is based on 495 respondents who reached 50 years or older in the first survey period and who each worked for the same employer in all three waves. Population figures regarding older people's employment and occupation during the years of data collection are compatible with sample characteristics. Fewer people in the working population were in higher age groups (ABS, 2019b). A similar employment pattern was evident in the sample: using midpoint figures, 50–54 years (220 cases); 55–59 years (154 cases); 60–64 years (84 cases); 65–69 years (29 cases); and 70 and over (eight cases). An age-based analysis of ABS population figures for 2011 showed that most workers aged 50 years and older were employed as managers or professionals, with manual jobs also important for men and clerical/administrative jobs for women (Temple, 2014). In the sample, a similar distribution was evident: over half held managerial or professional occupations with around a quarter of men (24%) in manual jobs and around a quarter of women (27%) in clerical/administrative jobs. Sixty-five percent of respondents in the sample were women, overrepresenting the population's female participation rate (~45%) of workers of 50 years and older during the survey years (OECD, 2020).

We employed RCM to test our time-related hypotheses. RCM examines repeated measures—in this case, responses to the same survey questions asked in each wave—in a hierarchical linear regression model that, unlike linear regression, does not introduce dependency into the data. Time values (level 1) are nested within each individual worker (level 2). This allows intercepts and slopes to vary so the assumption of homogeneity of slopes can be set aside. The outcome variable is time-varying (level 1), and predictors may be fixed (level 2) and/or time-varying (level 1).

#### 3.2 | Measures

For all the multi-item measures, participants responded on a scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

##### 3.2.1 | Outcome variable

###### *Intention to retire (waves 1–3)*

In each of the three waves, we selected the four items that measured intention to retire from Desmette and Gaillard's five-item withdrawal

from work scale (2008): “I will stop working as soon as possible,” “I would like to retire early if I can afford to,” “I would like to reduce my working hours if I can afford to,” and “I would refuse to reduce my working hours even if I could” (reverse scored; Wave 1 alpha = .77, Wave 2 alpha = .73, and Wave 3 alpha = .74).

##### 3.2.2 | Level 1 variables

###### *Time (waves 1–3)*

We constructed a variable that indicated the temporal sequence of each survey wave, coded 0 = Time 1, 1 = Time 2, and 2 = Time 3 (Bliese & Ployhart, 2002; Heck et al., 2014). Coding the time variable as in this manner means that the intercept refers to the starting period or initial status (Bliese & Ployhart, 2002, p. 365).

###### *Health (waves 1–3)*

We measured self-assessed health in each of the three waves using Adams and Beehr's (1998) four-item scale: “Overall, I am very satisfied with my health,” “My health is better than most people my age,” “My health limits my work” (reverse scored), and “Generally speaking, my health is very good” (Wave 1 alpha = .87; Wave 2 alpha = .86; and Wave 3 alpha = .86). Following Heck et al. (2014) and also Holtz and Harold (2009) for a time-varying predictor in longitudinal multilevel modeling, we grand mean centered the measure.

##### 3.2.3 | Level 2 variable

We created a fixed manager support variable with items drawn from Wave 2. In order to create perceived supervisor support (PSS) items, Eisenberger et al. (2002) recommended replacing the word “organization” with “supervisor” in the Survey of Perceived Organizational Support (SPOS) items (Eisenberger et al., 1986). We used Kuvaas and Dysvik's (2010) four-item PSS scale—supervisor versions of SPOS items 4, 9, 23, and 25—changing the word “supervisor” to “manager” to reflect the terminology used in Australian workplaces: “My manager cares about my opinions,” “My manager really cares about my wellbeing,” “My manager shows very little concern for me” (reverse scored), and “My manager strongly considers my goals and values” (alpha = .89). We took the average of the values of the items.

##### 3.2.4 | Control variables

Controls were fixed variables associated with intention to retire in empirical studies (Bal et al., 2015; Bamberger & Bacharach, 2014; Desmette & Gaillard, 2008; Gaillard & Desmette, 2008; Jiang et al., 2021). All control variables were drawn from Wave 2: employee age (continuous, 50–75 years); gender (1 = male, 0 = female); industry, using the Australian and New Zealand Standard Classifications (ANZSC) of industry (ABS, 2013a) (1 = manufacturing, 0 = other); occupation, using the ANZSC of occupations (ABS, 2013b)

(1 = unskilled manual, 0 = other); and workgroup age (1 = younger, 0 = other).

Means, standard deviations, and correlations of all variables are reported in Table 1.

## 4 | RESULTS

We conducted confirmatory factor analysis (CFA) followed by RCM.

### 4.1 | Confirmatory factor analysis

Following the recommendations of Ployhart and Vandenberg (2010), we used CFA to examine the discriminant validity of multi-item variables at each wave of measurement and also the measurement invariance of the repeated variables across the three waves. We used Mplus to conduct the CFA. All the CFA results are reported in Table 2.

#### 4.1.1 | Discriminant validity

In each wave, a three-factor model with a single latent variable representing the outcome (intention to retire), predictor (health), and moderator (manager support) was compared with a two-factor model (with a single latent variable representing intention to retire and health). For Wave 1, the three-factor model generated  $\chi^2 = 141.40$ ,  $df = 51$ ,  $p < .001$ . The indices showed a good fit to the data (CFI = 0.968, TLI = 0.959, RMSEA = 0.060, SRMR = 0.036).

CFI values that are closer to 1 reflect better-fitting models (Byrne, 2001), and values of 0.08 or less for RMSEA indicate good fit (Dilalla, 2000). The two-factor model generated  $\chi^2 = 673.84$ ,  $df = 53$ ,  $p < .001$  (CFI = 0.781, TLI = 0.727, RMSEA = 0.140, SRMR = 0.130), showing significantly poorer fit:  $\Delta\chi^2 = 532.44$ ,  $\Delta df = 2$ ,  $p < .001$ .

The results for Waves 2 and 3 were very similar to those for Wave 1, and the fit indices are presented in Table 2a. In both waves, the three-factor model demonstrated significantly better fit than the two-factor model: Wave 2  $\Delta\chi^2 = 1097.78$ ,  $\Delta df = 2$ ,  $p < .001$  and Wave 3  $\Delta\chi^2 = 424.53$ ,  $\Delta df = 2$ ,  $p < .001$ . The analysis, therefore, established the discriminant validity of multi-item variables at each wave of measurement.

#### 4.1.2 | Measurement invariance

We then examined measurement invariance in the repeated measures (intention to retire and health). Measurement invariance over time is established by demonstrating configural and metric invariance (Chan, 1998; Somaraju et al., 2022; Vandenberg & Lance, 2000). We used a CFA approach by examining a basic nested model and adding constraints (Liu et al., 2017; Millsap & Cham, 2012). See Table 2b for a summary of the results.

We started by investigating configural invariance (Vandenberg & Lance, 2000). Configural invariance tests the null hypothesis that the same general pattern of factor loadings holds consistently across time (Millsap & Cham, 2012). Further models can be tested only if the configural invariance model fits the data. We examined the basic measurement model (i.e., intention to retire

**TABLE 1** Correlation matrix.

	Mean	SD	1	2	3	4	5	6	7
1. Age	56.37	5.07	—						
2. Gender	0.35	0.48	-.01	—					
3. Industry	0.09	0.28	-.01	.21**	—				
4. Occupation	0.55	0.50	-.03	.07	-.14**	—			
5. Workgroup age	0.30	0.46	.07	.04	.05	.01	—		
6. Manager support	3.54	0.90	.10*	-.12**	-.04	.13**	-.09*	—	
Wave 1									
7a. Health	3.78	0.83	.02	-.06	-.05	.01	.02	.05	—
8a. Intention to retire	3.11	0.96	-.24**	.06	-.01	.01	.10*	-.19**	-.21**
Wave 2									
7b. Health	3.79	0.83	.02	-.04	-.03	-.01	.05	.04	—
8b. Intention to retire	3.23	0.88	-.26**	.01	-.01	-.02	.09*	-.20**	-.07
Wave 3									
7c. Health	3.77	0.80	.03	-.01	-.02	.06	.03	.04	—
8c. Intention to retire	3.19	0.86	-.19**	.06	.02	-.01	.10*	-.22**	-.12**

Note:  $N = 495$ .

\* $p < .05$ , \*\* $p < .01$ , and \*\*\* $p < .001$ .

TABLE 2 Confirmatory factor analysis.

Panel a: Multi-item variables at each wave						
Model	(1) Wave 1 (three factors)	(2) Wave 1 (two factors)	(3) Wave 2 (three factors)	(4) Wave 2 (two factors)	(5) Wave 3 (three factors)	(6) Wave 3 (two factors)
$\chi^2$	141.40***	673.84***	120.84***	1218.62***	157.93***	582.46***
<i>Df</i>	51	53	51	53	51	53
$\Delta\chi^2, \Delta df$	—	532.44, 2***	—	1097.78, 2***	—	424.53, 2***
		(2) – (1)		(4) – (3)		(6) – (5)
CFI	0.968	0.781	0.974	0.573	0.962	0.812
TLI	0.959	0.727	0.967	0.468	0.951	0.767
RMSEA	0.060	0.140	0.053	0.211	0.065	0.142
SRMR	0.036	0.130	0.036	0.166	0.036	0.124
Panel b: Repeated variables across three waves						
Invariance	(1) Configural	(2) Metric	(3) Partial metric			
$\chi^2$	426.65***	469.95***	447.78***			
<i>Df</i>	213	229	227			
$\Delta\chi^2, \Delta df$	—	43.30, 16***	21.13, 14			
		(2) – (1)	(3) – (1)			
CFI	0.971	0.967	0.970			
TLI	0.962	0.961	0.964			
RMSEA	0.045	0.046	0.044			
SRMR	0.042	0.051	0.047			

Note:  $N = 495$ .

\*\*\* $p < .001$ .

and health across time) with three waves of data. To capture the longitudinal nature of the data, we allowed the latent constructs at each time period to covary. We also allowed corresponding unique factors for each indicator to be correlated across time (Liu et al., 2017). The configural invariance model showed a good fit, generating  $\chi^2 = 426.65$ ,  $df = 213$ ,  $p < .001$  (CFI = 0.971, TLI = 0.962, RMSEA = 0.045, SRMR = 0.042).

We were able to move on, therefore, to investigate metric invariance (Chan, 1998; Vandenberg & Lance, 2000). Metric invariance tests the null hypothesis that the values of the corresponding factor loadings are equal across time. We constrained the factor loadings in the configural invariance model so that the loading for a given variable on a factor was held equal across the three waves. The metric invariance model showed a good fit, generating  $\chi^2 = 469.95$ ,  $df = 229$ ,  $p < .001$  (CFI = 0.967, TLI = 0.961, RMSEA = 0.046, SRMR = 0.051), but not as good a fit as the configural invariance model:  $\Delta\chi^2 = 43.30$ ,  $\Delta df = 16$ ,  $p < .001$ . Following Millsap and Cham (2012), we examined the residuals and modification indices. We found that releasing equality constraints on the factor loadings of two items in the retirement intention scale (“I would like to reduce my working hours if I can afford to” and “I would refuse to reduce my working hours even if I could”) while keeping all other factor loadings constrained showed a good fit, generating  $\chi^2 = 447.78$ ,  $df = 227$ ,  $p < .001$  (CFI = 0.970, TLI = 0.964, RMSEA = 0.044,

SRMR = 0.047). This model demonstrated an equivalent fit to the configural invariance model, showing no significant difference:  $\Delta\chi^2 = 21.13$ ,  $\Delta df = 14$ ,  $p = .098$ . As a partial metric invariance model with two invariant items is considered acceptable (Byrne et al., 1989; Steenkamp & Baumgartner, 1998), our data demonstrated measurement invariance across three waves, and we proceeded with the regression-based analyses.

## 4.2 | Random coefficient modeling

We used SPSS mixed model linear procedure with maximum likelihood estimation (MLE) to conduct RCM. Following Raudenbush and Bryk (2002) and Heck et al. (2014), beta coefficients were used to describe relationships in our two-level growth model.

In order to calculate an intraclass correlation coefficient (ICC) to help determine whether the strength of the nonindependence justifies the use of RCM, we began by exploring a null model with no predictors. Bliese and Ployhart (2002) described an ICC of .50 as sufficient, and our calculations produced an ICC measure of .69. In the following Steps 1–3, therefore, we employed RCM in a process of incrementally extending a baseline model. To make comparisons of fit between models, we used MLE with log likelihood values as estimates of model deviance.



#### 4.2.1 | Preliminary steps procedure

As a prelude to hypothesis testing, we employed a steps procedure to develop a valid level 1 growth model (Bliese & Ployhart, 2002; Field, 2013; Heck et al., 2014; Shiverdecker & LeBreton, 2019). In Step 1, we commenced with a baseline model that took no account of random effects ( $-2LL = 3901.62$ ,  $df = 3$ ). We then compared the fit of several covariance structures for repeated measures. Scaled identity covariance achieved the best fit and was used in all the following models. In Step 2, we allowed the intercept to vary. We used a variance components structure for random effects and made a comparison with the baseline. The deviance was significant ( $\Delta - 2LL = 732.10$ ,  $\Delta df = 1$ ,  $p < .001$ ). In Step 3, we allowed the slope to vary. The model fit was not improved ( $\Delta - 2LL = 1.00$ ,  $\Delta df = 1$ ,  $p = .317$ ). As the points of data collection in our study were not equidistant, we investigated two further covariance structures for random effects commonly employed to take account of autocorrelation (Bliese & Ployhart, 2002), also allowing the slope to vary. We used unstructured covariance recommended for data with fewer than five timepoints (Heck et al., 2014), and the model proved to be a better fit than the variance components model in Step 2 ( $\Delta - 2LL = 26.52$ ,  $\Delta df = 2$ ,  $p < .001$ ). Finally, we used a first-order autoregressive model with homogenous variance or AR(1). This proved to have the poorest fit of the models we investigated ( $-2LL = 3515.21$ ,  $df = 16$ ). Thus, in relation to the time parameter, the best-fitting model used a scaled identity covariance structure for repeated measures and an unstructured covariance for random effects, allowing individuals to randomly vary in terms of the initial status of their retirement intention and also to differ in terms of retirement intention over time.

We completed the level 1 model by including time-varying health. When we allowed the intercept to vary, the deviance was significant ( $\Delta - 2LL = 9.47$ ,  $\Delta df = 1$ ,  $p = .002$ ). Although we had not made a theoretical prediction, we then allowed the slope to vary, in this case using a group-mean centered measure (Hamaker & Muthén, 2020). The model fit did not improve ( $\Delta - 2LL = 7.00$ ,  $\Delta df = 3$ ,  $p = .071$ ), and the slope of health was not allowed to vary in subsequent analyses.

#### 4.2.2 | Hypothesis testing

We moved on to include level 2 variables in the model (Bliese & Ployhart, 2002) as we proceeded to test the hypotheses. Intention to retire was the level 1 outcome variable (i.e., a measure repeated in all three waves). The results are reported in Tables 3 and 4.

We tested Hypothesis 1—*as time goes by, older workers' intention to retire will increase*—by regressing intention to retire on time, including health, manager support, and control variables (see Table 3). The time coefficient was positively significant ( $\beta = .04$ ,  $p = .025$ ), and Hypothesis 1 was supported. This indicated that the passage of time per se had an independent relationship with intention to retire. In

**TABLE 3** Random coefficient model: The relationships of time, health, and manager support with intention to retire.

	Estimate	SE
Intercept	5.10***	0.37
Control variables (level 2)		
Age	−0.04***	0.01
Gender	0.04	0.07
Industry	−0.03	0.12
Occupation	0.01	0.08
Workgroup	0.10*	0.04
Level 1 variables		
Time	0.04*	0.02
Health	−0.09**	0.03
Level 2 variable		
Manager support	−0.18***	0.04
−2LL, $df$	3072.78, 13	

Note:  $N = 495$ . Table entries are unstandardized coefficients with standard errors.

\* $p < .05$ , \*\* $p < .01$ , and \*\*\* $p < .001$ .

support of conventional theory, poor health ( $\beta = -.09$ ,  $p = .002$ ) and low levels of manager support ( $\beta = -.18$ ,  $p < .001$ ) were each associated with greater intention to retire.

To test Hypotheses 2 and 3, we investigated the dynamic or temporal relationships of health and manager support with intention to retire in two stages. Four interaction terms—time  $\times$  health, time  $\times$  support, health  $\times$  support, and time  $\times$  health  $\times$  support—were created. Interactions that include the time variable test whether there is within-person variance over time (Biesanz et al., 2004; Harold & Ployhart, 2008). Following Harold and Ployhart (2008), we entered time, health, and the moderator (manager support) with controls in each stage of the regression.

To test Hypothesis 2—*as time goes by, the better the health, the greater the increase in intention to retire*—we included the three 2-way interaction terms in the first stage (see Table 4, column a). The time  $\times$  health coefficient was significant ( $\beta = .05$ ,  $p = .014$ ). As expected, the time  $\times$  support coefficient and the health  $\times$  support coefficient were nonsignificant:  $\beta = -.01$ ,  $p = .605$  and  $\beta = -.03$ ,  $p = .306$ , respectively. To better understand the time  $\times$  health finding, we used Preacher's growth curve calculator (<http://quantpsy.org/calc.htm>, based on Preacher et al., 2006) to find intercepts and simple slopes for points plotted at high and low values of health (grand mean  $\pm$  standard deviation) and manager support (mean  $\pm$  standard deviation) (see Figure 1). Good health was associated with a significant growth in intention to retire over time:  $\beta = .08$ ,  $p < .001$ . In contrast, poor health was associated with a stable intention:  $\beta = -.005$ ,  $p = .839$ . Hypothesis 2 was supported.

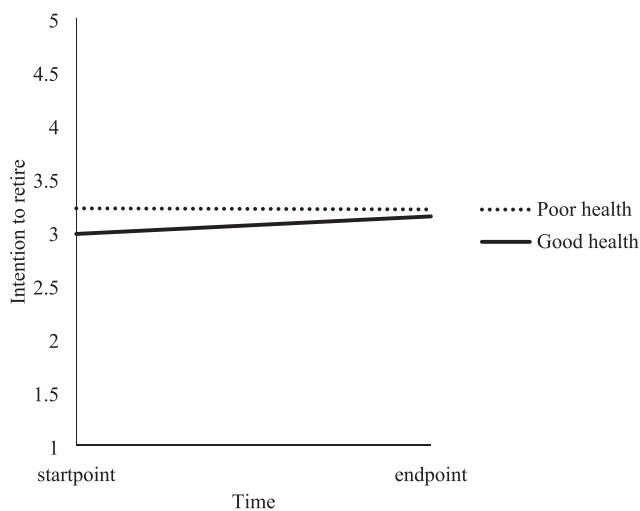
Supervisor support can vary a great deal among line managers so, before we tested Hypothesis 3, we investigated whether manager

**TABLE 4** Random coefficient model: The temporal relationship of health and manager support with intention to retire.

	(a)		(b)	
	Estimate	SE	Estimate	SE
Intercept	5.09***	0.37	5.08***	0.37
Control variables (level 2)				
Age	−0.04***	0.01	−0.04***	0.01
Gender	0.03	0.07	0.03	0.07
Industry	−0.03	0.12	−0.03	0.12
Occupation	0.01	0.08	0.01	0.08
Workgroup	0.10**	0.04	0.10*	0.04
Level 1 variables				
Time	0.04*	0.02	0.04*	0.02
Health	−0.15***	0.04	−0.14***	0.04
Level 2 variable				
Manager support	−0.16***	0.04	−0.17***	0.05
Interactions				
Time × health	0.05*	0.02	0.05*	0.02
Time × support	−0.01	0.02	0.01	0.02
Health × support	−0.03	0.03	0.02	0.04
Time × health × support			−0.05*	0.02
−2LL, <i>df</i>	3065.63, 16		3061.23, 17	
$\Delta - 2LL, \Delta df$			4.40, 1*	

Note:  $N = 495$ . Table entries are unstandardized coefficients with standard errors.

\* $p < .05$ , \*\* $p < .01$ , and \*\*\* $p < .001$ .



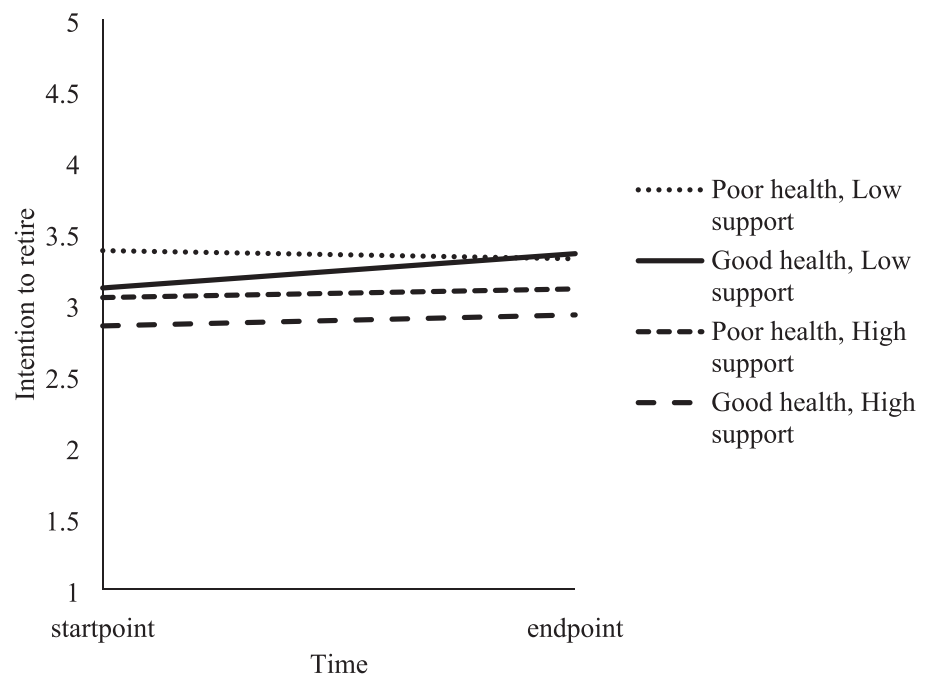
**FIGURE 1** Profile plots: The temporal relationship between health and intention to retire.

support could be treated as an organizational variable for our sample. We constructed two variables, measuring whether or not the manager was the same person in the first two waves (1/0: 77% the same) and in all three waves (1/0: 60% the same). We then ran two exploratory OLS regressions with an outcome variable of Wave 3 intention to

retire and explanatory variables of manager support and—in turn—each of the “same manager” variables with their associated interaction term (support × same manager). In both cases, the interaction was nonsignificant ( $b = .10, p = .307$  and  $b = .06, p = .458$ ), demonstrating that the relationship between manager support and intention to retire was not significantly affected by whether or not the manager was the same person across waves. As our sample was confined to respondents who had remained in the same workplace throughout the survey, we concluded that organizational differences were largely responsible for variations in response.

We moved on to test Hypothesis 3—in a context of low manager support, good health will have an increasingly positive relationship with intention to retire as time goes by—we included the time × health × support interaction in the second stage (see Table 4, column b). The coefficient was significant ( $\beta = -.05, p = .036$ ;  $\Delta - 2LL, \Delta df = 4.40, 1; p = .036$ ). We used Preacher's calculator to find intercepts and simple slopes. The profile plots are presented in Figure 2. Good health was associated with a significant growth in intention to retire over time when manager support was low:  $\beta = .12, p < .001$ . In contrast, the simple slopes of the other combinations were stable: good health/high support  $\beta = .04, p = .252$ ; poor health/high support  $\beta = .03, p = .41$ ; and poor health/low support  $\beta = -.03, p = .389$ . Using procedures for growth curves presented by Dawson (2022), we found that the slope for

**FIGURE 2** Profile plots: The temporal relationship between health and intention to retire in different manager support contexts.



good health/low support was significantly different from each of the other three slopes: good health/high support ( $t = 3.27$ ,  $p = .001$ ), poor health/high support, ( $t = 2.62$ ,  $p = .009$ ), and poor health/low support ( $t = 2.14$ ,  $p = .033$ ). The simple slopes represent trajectories for workers who have precisely those levels of health and support throughout. Following Singer and Willett (2003), as health is time-varying, they represent trajectories for workers with consistent health levels. Hypothesis 3 was supported, superseding Hypothesis 2.

Finally, the results for the control variables remained similar in both temporal stages. Greater retirement intention was reported by younger workers ( $\beta = -.04$ ,  $p < .001$ ) and by those in younger workgroups ( $\beta = .10$ ,  $p = .012$ ;  $\beta = .10$ ,  $p = .010$ ). To demonstrate robustness (Spector & Brannick, 2011), we ran the temporal regressions excluding all controls. The results remained very similar to those of the full model (first stage, time  $\times$  health,  $\beta = .05$ ,  $p = .020$  and second stage, time  $\times$  health  $\times$  support,  $\beta = -.05$ ,  $p = .036$ ).

## 5 | DISCUSSION

The findings provide answers to our research questions: *What is the relationship between the passage of time and intention to retire?* The findings showed a positive relationship, lending support to socio-emotional selectivity theory and its emphasis on the importance of time in its own right. *What is the temporal relationship between health and intention to retire?* They showed that good health was associated with growth of intention to retire over time. *Does manager support moderate the temporal relationship between health and intention to retire?* This proved to be the case as the relationship was significantly stronger when manager support was low. These findings identified a

subgroup of older workers whose intention to retire speeded up relative to other workers. The trajectory of older workers with consistently good health and low manager support increased significantly over time, indicating the likelihood of an earlier retirement than might be expected for healthy workers. In contrast, the trajectories of workers with other combinations of consistent health and support were all stable.

Our results also support the well-known association between poor health and retirement (Fisher et al., 2016). We showed clearly that *our own data* produced both the findings of conventional static results and also findings of a dynamic analysis that identified a subgroup of “queue jumpers.” RCM takes into account nonindependence, and the investigation of pooled respondents showed that poor health was associated with higher levels of intention to retire. RCM also enabled us to conduct a dynamic investigation that found a previously unidentified subgroup whose intention to retire speeded up across time. This novel result helps explain recent trends. Even though life expectancy has increased in the last decades, retirement age has declined. Most of our largely representative sample consisted of older workers in their early 50s, and the average retirement age in Australia of people who were employed at 45 years was just over 55 years. It also helps explain reports of active retirement lifestyles that have relied on informal observations.

Following Carstensen, we did not expect age to be positively associated with retirement intention, and this proved to be the case. Studies of early/late retirement with different age ranges and measures have produced a variety of different age findings (e.g., Fasbender et al., 2019, negatively significant; Griffin et al., 2012, nonsignificant; Jiang et al., 2021, positively significant). A comprehensive review noted the inconsistency of the age findings in retirement studies, concluding that results depend mainly on study design

because different age groups have different ranges of attitudes to retirement (Fisher et al., 2016). Our finding of a negative significant association reflects the character of the sample in which older workers with the greatest intention to retire had likely left paid work in earlier years.

## 5.1 | Theoretical and practical implications

The strength of Carstensen's analysis is derived from her insight that an acceleration in biological degeneration at around the age of 50 brings about a stage in life characterized by increasing perceptions of the finiteness of time. In our study, we proposed that, while all older workers perceive that time is finite, some are particularly responsive and speed up their interest in retiring. We hypothesized that workers in good health have a work-retirement choice denied to those in poor health. The passage of time prompts them to consider in an ongoing way how best to spend the decreasing amount of life left to them: in work or in active retirement. We also hypothesized that this was significantly more the case when low provision of support by the organization's managers influences the choice that healthy older workers might take, making active retirement increasingly more attractive to those in good health. Finally, our use of socio-emotional selectivity theory changes perspectives on the role of health in people's retirement intentions. This theory challenges one of the fundamental assumptions of conventional retirement theories that retirement is largely the *preserve* of the less healthy who seek respite or care. While motivation to retire for these reasons remains the case for many older workers, socio-emotional selectivity theory helps provide an explanatory framework for Laslett's insight that retirement might lead to a "third age" of active leisure for some healthy workers.

In terms of practical implications, our study showed that low manager support increased the growth of intention to retire over time of older workers in consistently good health, but it also demonstrated that high support restrained this growth. If organizations wish to slow down the retirement process of such workers, they should develop a climate in which their managers are encouraged to provide support, for example, by the negotiation of I-deals. I-deals are arrangements between an individual employee and the organization that lie outside standard HR policies and practices (Rousseau et al., 2006). Managers negotiate variations in work and adapt tasks to suit an individual's priorities. Importantly, we found there was a small window for intervention as the increase in those workers' retirement intention took place over a period of just 2 years. To act swiftly, organizations should delegate more resources to managers, allowing them some autonomy, power, and discretion (Guest, 2021; McDermott et al., 2013).

The findings also help provide guidelines for healthy older workers with low manager support in making their retirement plans. It is difficult to reverse the retirement decision after the event, and, as such workers have a choice between work or active leisure, they should carefully consider their options. Although we did not investigate finance in our study, research shows that it is a major factor in the retirement decision (Fisher et al., 2016). This is especially

important for healthy workers with low manager support who need to understand that active leisure may be costly. Financial viability was important for retirees in good health (De Wind et al., 2013). Similarly, a "third age" was found to be confined to people, not just with good health, but from high socio-economic backgrounds (Chatzitheochari & Arber, 2011). Further, price rises following recent world events have negatively affected the incomes of many older people. In Australia, the annual percentage increase in "comfortable budgets" for retirees in early 2022 was the largest since 2010 (Association of Superannuation Funds of Australia, 2022). Thus, older workers considering active leisure may need to revise their retirement plans. Our study suggests they might seek to secure better manager support as they reprioritize the factors influencing the meaning of work for them. The change in work arrangements brought about by COVID-19—declared a pandemic by WHO in March 2020—could help in this endeavor. In particular, work from home—or remote work—might well become an enduring characteristic of the labor market (Australian Government Productivity Commission, 2021). In this new situation, healthy workers might gain manager support to negotiate I-deals that allow hybrid on-site/home-based work arrangements. They would be distanced from on-site age-related discriminatory attitudes and provided with opportunities to reduce hours of work and develop home-based relationships in preparation for withdrawal from work.

## 5.2 | Limitations and strengths

Limitations of our study must be considered. While we examined the passage of time *per se*, we also encourage investigations of the use of time by older workers. As passive forms of leisure such as media consumption do not create social connections for older people (Toepoel, 2013), it would be valuable to examine the relationship of measured daily episodes of work and different kinds of leisure activities (Möwisch et al., 2022), in this case, with retirement intention. We used self-assessed health rather than an objective measure because people's evaluation of their own longevity is central to socio-emotional selectivity theory. However, as the association of self-assessed health with actual mortality is well-established (Jylhä, 2009), it would also be valuable to investigate objective measures as managers may be alerted to individuals' needs through workers' disclosure of diagnosed health problems. As older workers are characterized by changes in health, our time-varying measure of health meant we could associate the predictor with intention to retire at each point in time. This allowed us to identify a subgroup of workers whose intention to retire increased over time: those with consistently good health and low manager support, but, following Singer and Willett (2003), many workers have inconsistent health patterns (e.g., good health followed by poor health), each with its own individual trajectory. Older workers, therefore, need to consider carefully how best to spend the rest of life in relation to their own health/support pattern in the context of the growing perception of finite time. Finally, although Carstensen views relationships as resources, we did not examine them directly. We especially recommend research in the neglected area of relationships

formed in active retirement. Yet, our study also has considerable strengths. We employed a CFA-based approach to testing invariance across time of our level 1 scales, demonstrating both configural and metric invariance. Researchers may also consider a regression-based item-focused tree approach that allows for an examination of multiple covariates (e.g., Guo et al., 2022). RCM was employed to test the hypotheses because it is an ideal method to investigate socio-emotional selectivity theory: The inclusion of an interaction of an explanatory variable with the time variable allowed us to directly investigate the temporal relationships of explanatory variables with the outcome variable.

In conclusion, this research adds value to the multitude of studies on retirement. We used a dynamic model to identify a subgroup of workers whose intention to retire increased in a short period of time. Many aspects of the meaning of work may have paled for them when perception of time running out motivated them to consider what else life has to offer. The existence of this subgroup was obscured in previous studies that did not take into account the effects of time. Our study found that, for some older workers, changes in retirement intention occurred “because of time” (Shipp & Cole, 2015, p. 248). Retirement is far more than exit from paid employment; it is the pathway to the end of life. Organizations bear a major responsibility to generate a supportive environment in which older workers make choices about how to spend their final years.

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## CONFLICT OF INTEREST STATEMENT

No conflicts of interest.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the second author. The data are not publicly available due to privacy and ethical restrictions.

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