

**Late-Career Work Disengagement:  
The Role of Proximity to Retirement and Career Experiences**

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**Running headline: Late-Career Work Disengagement**

## **ABSTRACT (198 words)**

**Objectives.** Even though in retirement and career theories reference is made to a preretirement work disengagement process among older workers, quantitative empirical knowledge about this process is limited. The aim of this study is to improve our understanding of work disengagement in the preretirement period, by examining the impact of proximity to planned retirement (anticipated future) and work, educational, and health experiences (lived past) on changes of work disengagement during late careers.

**Methods.** Using two-wave panel data collected in 2001 and 2006-2007 among Dutch older workers (N = 596), a scale was developed to measure work investments, activities, and motivation during late careers. We estimated conditional change models to examine changes of these scale scores (i.e., disengagement or re-engagement) over the studied period.

**Results.** In line with the preretirement work disengagement process hypothesis, this study shows that many older employees disengage more from work when getting closer to their planned retirement age. Making promotion slows down the disengagement process. Declining health, in contrast, accelerates the process.

**Discussion.** For achieving a comprehensive understanding of the retirement process, not only the lived past, but also the anticipated future (i.e., expected time-left in the current state) should be taken into account.

**Key-words:** Careers – Life course – Older workers – Preretirement process

## INTRODUCTION

Retirement can be perceived as a complex long-term process, which encompasses preretirement anticipation of retirement, the retirement act itself, and postretirement adjustment to new conditions (Beehr, 1986; Shultz & Wang, 2011; Wang & Shultz, 2010). In the preretirement period older workers will plan and prepare for retirement (see for review Adams & Rau, 2011), but can also be expected to gradually reduce their work investments, activities, and motivation (i.e., to disengage from their work). Atchley (1976) described that employees may develop a “short-timer’s attitude” during the phase near retirement (p.67). Also in the traditional career stage theory of Super (1957), late careers are portrayed as a period of maintenance followed by a period of decline, which is proposed to be “a period of tapering off of activities, of slowing down and cutting out” (Super, 1957, p.154). Even though given policy measures to keep workers in the labor force until older ages (OECD, 2006) insights in late-career work disengagement are highly relevant, few studies have attempted to provide the notion of preretirement work disengagement with a theoretical and empirical basis. This study aims at filling this gap, by studying the following questions: (1) Is there a preretirement work disengagement process and (2) To what extent and how do career-related experiences affect late-career work disengagement?

In exploratory qualitative studies, reference has been made to work disengagement of employees in preretirement years. About two-third of the state employees interviewed by McEvoy and Blahna (2001) mentioned older workers’ disengagement as a problem. Based on qualitative interviews with managers Henkens and Van Solinge (2003) conclude that many managers can name examples of disengaged older workers in the phase near retirement. They are referred to as “mentally retired” persons or “employees who already have disconnected themselves” (p.80). Quantitative studies on age and job attitudes do not seem to reflect this picture of disengaged workers in preretirement years though: A recent meta-analysis shows

that older workers generally have more favorable job attitudes than younger workers (Ng & Feldman, 2010). However, in a study in which job attitudes are not only examined along the time dimension of 'age', but also along the dimension of 'proximity to retirement' (Ekerdt & DeViney, 1993), support has been found for the notion of preretirement work disengagement. When controlling for age, the study shows that older workers feel more nervous and tired when they are closer to their anticipated retirement age. The authors conclude that: "With the greener grass of retirement in view, older workers are free to admit doubts about the quality and demands of their jobs" (Ekerdt & DeViney, 1993, p. S41).

This study will contribute to the literature on retirement anticipation in two ways. First, as Ekerdt and DeViney (1993) note, not only attitudes about the burdensomeness of jobs can change in anticipation of retirement, but also behaviors, relationships and other job-related attitudes. To improve our understanding of the preretirement work disengagement process we developed a broad late-career work disengagement scale that measures – in line with the descriptions by Atchley (1976) and Super (1957) – work investments, activities, and motivation during late careers. The scale captures various attitudes and behaviors older workers specifically can be expected to change in their preretirement period. For example, items of the scale comprise the willingness to participate in new courses, preferred reductions of work hours, and attitudes about the assignment of responsibilities to younger workers.

Second, we will not only study the impact of time-left to retirement (anticipated future), but also examine the impact of late-career experiences in various life spheres (lived past) on changes in work investments and motivation among older workers. The life course proposition of lifelong development suggests that life periods should be understood "within the context of a lived past and anticipated future" (Settersten, 2003, p.37). Since career plateauing is a key career issue related to the latter years of work (Bown-Wilson & Parry, 2009), one issue that might affect work investments and motivation among older workers is

(the lack of) career mobility. Also educational and health experiences can be expected to be of importance for understanding changes in late-career work disengagement. Generally experiences during late careers can be expected to affect the perceived costs and returns of work activities and investments and might therefore result in more or less work disengagement over time.

This article is based on two-wave panel data collected in 2001 and 2006-2007 among Dutch older workers. At both points in time the items of the late-career work disengagement scale were available, which offers the possibility to study changes – i.e., disengagement or re-engagement – over time. Especially for examining whether there is a preretirement work disengagement process the availability of panel data is important, given that causality between proximity to retirement and work disengagement may run in both directions (Ekerdt & DeViney, 1993). Information about the planned retirement age was collected at baseline, which offers the opportunity to study whether workers who almost reached their previously reported retirement age at Wave 2 experience larger increases of disengagement over the studied period than workers who still have many years left in the labor force.

In the Netherlands individuals become eligible for public pension at age 65. Next to the public pension, most employees (91%) are covered by at least some form of occupational pension. Participation in these occupational pensions is mandatory (see Van Dalen, Henkens, & Hershey, 2010, for a comparison of the Dutch and US pension systems) and replacement rates are relatively high (OECD, 2011). In recent decades there has been a strong “early exit culture” in the Netherlands (De Vroom, 2004, p.120). At the time the first data were collected, in 2001, many older workers were eligible for early retirement. Dutch employers offered few opportunities for later retirement, and early retirement programs were designed in such a way that leaving the workforce at early retirement age was an offer older workers could not refuse. The mean retirement age of Dutch employees has been around age 61 in the years from 2001

to 2007. From 2007 onwards, the mean retirement age increased to about 63 in 2011 (Statistics Netherlands, 2012)

## **THEORY AND HYPOTHESES**

From a life course perspective it is expected that individuals make choices and take actions within the opportunities and constraints of their social worlds (Elder & Johnson, 2003; Settersten, 2003). In line with this proposition of ‘human agency within structure,’ older workers can be expected to vary in their levels of late-career work disengagement, according to their opportunity structure in the preretirement period and the associated perceived costs and returns of work activities and investments. Given that both the anticipated future career and career-related experiences will shape the individual opportunity structure during late careers, these experiences can be hypothesized to influence the process of disengagement.

### ***Anticipated future: Is there a preretirement work disengagement process?***

During the 20<sup>th</sup> century retirement has become an institution. State-funded old age security regulations, employer pensions, and social norms about retirement have resulted in an established pattern of most workers leaving the labor force between ages 55 and 65 (Szinovacz, 2003). Even though pathways into retirement are diverse and (intended) retirement ages differ considerably between individuals (Damman, Henkens, & Kalmijn, 2011; Han & Moen, 1999), “the eventuality of retirement is a socially structured given with which people must cope and toward which they devise actions to be taken” (Ekerdt, Kosloski, & DeViney, 2000, p.4).

From a sociological viewpoint, the life course transition of retirement can be expected to be accompanied “with its own socialization and transition procedures” (Evans, Ekerdt, & Bossé, 1985, p.373). In the phase near retirement individuals will start to accommodate

themselves to the upcoming separation from their work and the accompanying social situation, which might result in a “short-timer’s attitude” (Atchley, 1976, p.67). Findings on retirement adaptation also suggest the existence of a preretirement process (Evans et al., 1985). Most retirees seem to adjust to retirement very quickly (Van Solinge & Henkens, 2005), which might indicate that individuals already started their adjustment process prior to the actual retirement transition.

When taking an economic perspective, a preretirement work disengagement process can be expected as well. When the time-left in the labor market becomes shorter, the payback period of work activities and investments becomes more restricted and the perceived ‘returns’ will therefore become smaller. For example, workers who are approaching retirement might be more likely to reduce their willingness to take up new tasks or to participate in training, than workers who have many years left at work, because the time to reap the benefits of these investments (e.g., better career perspective) is limited.

Based on both lines of reasoning we hypothesize that the closer older employees get to their planned retirement age, the more they disengage from work (Hypothesis 1).

### ***Lived past: How do career-related experiences affect late-career work disengagement?***

As individuals age, they change jobs less frequently and are more likely to experience hierarchical plateauing (Allen, Russell, Poteet, & Dobbins, 1999). Whereas plateauing has often been found to be associated with unfavorable job outcomes (e.g., McCleese, Eby, Scharlau, & Hoffman, 2007), mobility has been found to be associated with favorable job outcomes, such as increasing levels of affective organizational commitment (Kondratuk, Hausdorf, Korabik, & Rosin, 2004). Work disengagement can be expected to be related to career experiences like position changes, promotions, and employer changes, because these experiences affect the (perceived) opportunity structure in preretirement years. Being mobile

– as compared to immobility – has been found to be related to “increases in perceived opportunities for growth and material rewards” (West & Nicholson, 1989, p.345). Function changers perceive to have enhanced opportunities for material rewards in their new jobs (West & Nicholson, 1989). Making promotion will cause an improvement of working conditions (e.g., more pay, authority, or self-direction). Voluntary employer changes also are likely to be positively associated with objective measures of career success (Feldman & Ng, 2007). Assuming that these more beneficial preretirement work situations make it more intrinsically rewarding for older workers to contribute to and invest in their work, all three forms of career mobility can be expected to slow down the disengagement process and might even result in re-engagement. We hypothesize that older workers who changed positions – both without (Hypothesis 2) and with promotion (Hypothesis 3) – or moved to another employer (Hypothesis 4) disengage less than those who did not have these experiences.

In discussions about the labor force participation of older workers, lifelong learning is often perceived as one of the key policy measures to keep workers employed until older ages (OECD, 2006). Participation in training will extend the knowledge and skills of workers (i.e., their human capital), which can be expected to positively affect their labor market outcomes (OECD, 2006). These improved labor market outcomes might increase work motivation and might make work contributions more rewarding to the individual. Moreover, when arguing from a social exchange perspective, an analogous prediction can be made. If organizations invest in and support their employees, for example by offering training, this creates an obligation for employees to repay the organization (Armstrong Stassen & Ursel, 2009). One form of repayment might be an increase in work activities, motivation, and investments. We hypothesize that older workers who participate in late-career training disengage less than those who did not have this experience (Hypothesis 5).



The way in which older workers approach retirement cannot be seen in isolation from their health situation. Health problems might constrain work capacities and might increase the relative value of leisure time. One way in which older workers can deal with changing opportunity structures due to declining health is by retiring. Poor health is often found to be an important predictor of early retirement (See for reviews Feldman, 1994; Wang & Shultz, 2010) and some older workers seem to perceive retirement as a health investment strategy (Henkens, 1999). Another way in which older workers can cope with declining health is by decreasing their work activities and investments. Their more constrained work capacities and increased relative valuation of leisure time can be expected to result in reduced work hours, less work motivation, and fewer investments in development and training. Consequently, we hypothesize that older workers whose health situation deteriorates disengage more from work than older workers whose health situation does not decline (Hypothesis 6).

## **METHODS**

### ***Sample***

This study is based on panel data collected in the Netherlands. In 2001 (Wave 1) data were collected among (1) a random sample of older civil servants aged 50 years and over and (2) all workers aged 50 years and over of three large Dutch multinational private-sector organizations that are active in the fields of information and communication technology, retail, and manufacturing. A mail questionnaire was sent to 3,899 older workers; in total 2,403 questionnaires were completed (response rate 62%). A follow-up study was conducted in 2006-2007 among participants of the first wave. There was some attrition due to company takeovers (N = 116), mortality (N = 44) and untraceable participants (N = 4). A total of 2,239 questionnaires were mailed out, of which 1,678 were returned (response rate 75%).

Given that this study focuses on changes in work disengagement in the years prior to retirement, the base sample for the panel analyses consists of 657 respondents who were employed at both waves of data collection and did not make use of an (early) retirement arrangement during the study period. Those who did use an (early) retirement arrangement were considered as retired. Respondents who did not answer all Wave 1 ( $N = 18$ ) or Wave 2 ( $N = 8$ ) late-career work disengagement items, or who did not answer any of the central questions regarding late-career experiences ( $N = 35$ ) were eliminated from the sample. This results in an analytic sample of 596 older workers, who were on average 52.31 ( $SD = 1.87$ ) years old at Wave 1.

## ***Measures***

### *Dependent variable*

During both waves of data collection, employed respondents were asked about their level of late-career work disengagement by means of six Likert items with five answer categories (1 = completely agree to 5 = completely disagree). The items capture a variety of work activities and investments that older workers might reduce in the preretirement period: I do not keep up as well with the latest developments in my field as I did five years ago (reversed); I think they should assign new responsibilities to younger persons (reversed); I am still as motivated for my work as two years ago; They should no longer ask me to participate in new courses (reversed); I use every possibility to reduce the number of hours I work (reversed); I think it is important to keep myself informed of new developments in my field (see Table 1 for descriptive statistics). To check whether these items measure one concept, we submitted the data to exploratory factor analyses using the principal factors method. At both Wave 1 and Wave 2, only one factor was extracted with an eigenvalue greater than 1.00, suggesting that

the items measure one underlying concept. The scale was constructed by calculating the mean score of the items. High scale scores represent high disengagement levels. The Cronbach's alpha of the scale is 0.69 at Wave 1 and 0.71 at Wave 2, which is reasonable (Nunnally, 1978).

[TABLE 1 ABOUT HERE]

### *Independent variables*

Proximity to retirement – The complexity of analyzing the relationship between proximity to retirement and disengagement is that disengagement itself can be expected to have an impact on retirement intentions. To make sure that the planned retirement age precedes the change in disengagement, we used the planned retirement age reported at Wave 1 to test whether workers who almost reached their previously reported retirement age at Wave 2 experience larger increases of disengagement over the studied period than workers who still have many years left in the labor force. Proximity to retirement is measured by taking the difference between the planned retirement age reported at Wave 1 (based on the question “at which age do you want to stop working?”) and the respondent’s age at Wave 2. Proximity to retirement was categorized in one-year increments up to six years, whereby workers who were six or more years away from their planned retirement age form the reference group. Workers who ‘did not know yet’ when to retire were grouped into a separate category. Those who had passed their planned retirement age at Wave 2 form a separate category as well.

Late-career experiences – Career experiences between Waves 1 and 2 were measured by two types of questions. First, respondents were asked to indicate at which age they experienced a change of position, promotion, employer change, and work-related training the last time. Based on the reported ages, we constructed a dummy variable per life experience, indicating whether the employee had had this specific experience between the waves of data

collection. Given that position changes and promotions often coincide the responses to these variables were combined: (1) no change of position (reference group); (2) changed positions without promotion; (3) changed positions by making promotion. Second, health changes between the waves of data collection were studied by the question “has your health changed over the last five years?” (1 = yes, deteriorated much to 5 = yes, greatly improved). A dummy variable was constructed indicating whether or not the health situation of the respondent deteriorated. All questions on late-career experiences were measured at Wave 2.

Control variables – Some basic demographic and career characteristics are controlled for in the analyses. First, we control for the age and gender of the respondent (0 = man, 1 = woman). The respondent’s age of entering the labor market was measured by the question “at what age did you start working?.” Reported occupations were coded into SBC-1992 occupational codes (Statistics Netherlands, 2001) and categorized into two groups: nonmanual work (= 0) and manual work (= 1). Based on the question “Do you have a supervisory position? (1 = No to 4 = Yes, I supervise more than 20 persons)”, we measured whether (= 1) or not (= 0) the respondent has a supervisory position. Subjective health was measured by the question “How would you characterize your health in general? (1 = very good to 5 = very poor, reversed). All control variables were measured at Wave 1. The descriptive statistics of the variables are presented in Table 2.

[TABLE 2 ABOUT HERE]

### *Analyses*

To examine changes in work disengagement over time, the value of late-career work disengagement at Wave 2 is predicted by the value of late-career work disengagement at Wave 1, proximity to planned retirement, late-career experiences, and control variables. In

these conditional change models, the coefficients can be interpreted as the effects of the independent variables on the change in work disengagement between Waves 1 and 2, controlling for initial disengagement levels at Wave 1 (Finkel, 1995).

In these panel models, we only observe work disengagement levels for older individuals who did not make use of an (early) retirement arrangement during the study period. However, whether respondents who are younger than age 65 are still working, might be the result of a selective process. To prevent biased conclusions, we estimated Heckman maximum likelihood selection models. Selection models are not without problems, however, they are the best option so far in the absence of quasi-experiments (Fu, Winship, & Mare, 2004). First, selection into the sample (i.e., working versus retired) was predicted based on all independent and control variables and several measures of the preretirement financial situation (pension build-up, wealth, and the financial dependence of children). These financial variables were assumed not to affect late-career work disengagement directly, but to be important predictors of retirement timing (Damman et al., 2011). Second, the probability of remaining in the panel (converted to Lambda) was calculated from the parameter estimates of the first model and was included in the model for predicting late-career work disengagement at Wave 2. Even though the main findings when correcting for selection do not differ much from those without selection correction, Table 3 presents the results correcting for sample selection.

We used robust standard errors allowing for intradepartmental correlation in the analyses, to take care of the multilevel structure of the data (employees of four organizations nested in organizational departments). To control for potential organizational-level effects, organizational dummy variables were included in the models (cf. Damman et al., 2011).

## RESULTS

Between Waves 1 and 2, the level of late-career work disengagement increased among the studied workers. The mean scale score of the respondents in the second wave sample is 2.52, whereas their mean score was 2.35 at the first wave of data collection ( $t(595) = 6.94, p < .001$ ). For about 26% of the employees disengagement levels increased more than one standard deviation ( $SD(\text{Wave 1}) = 0.62$ ). About 10% of the workers experienced a decrease in disengagement of more than one standard deviation. The work disengagement scores of both waves are strongly correlated,  $r(594) = .59, p < .001$ . Table 3 presents the results of the conditional change models that are estimated to explain changes in late-career work disengagement between Waves 1 and 2. Approximately 40% of the variation of the Wave 2 work disengagement scores can be explained by the specified models ( $R^2(\text{Model 1a}) = 0.39$ ;  $R^2(\text{Model 1b}) = 0.42$ ).

In Model 1a (Table 3) the effects of time-left to (individual) retirement on late-career work disengagement are reported, when controlling for Wave 1 work disengagement. The results are in line with Hypothesis 1, in which is expected that the closer older employees get to their planned retirement age, the more they disengage from work. Compared to the reference group ( $\geq 6$  years proximate to retirement), especially older workers who got relatively close to their planned retirement age (0-2 years left-to retirement) showed larger increases in late-career work disengagement over time. Workers who have passed their planned retirement age also showed relatively large increases in work disengagement. The coefficients of the control variables age, gender, age of entering the labor market, type of work, and subjective health are not statistically significant. Persons in a supervisory position at Wave 1 showed smaller increases in work disengagement over time, compared to those having a non-supervisory position.

In addition to the analyses reported in Model 1a (Table 3) we carried out several analyses to further improve our insights into the relationship between proximity to retirement and late-career work disengagement. We examined whether the relationship is linear, by testing whether the regression coefficients of the dummy variables in Model 1a reflect a linear pattern (i.e., test  $\text{proximity}_5 - \text{proximity}_4 = \text{proximity}_4 - \text{proximity}_3 = \text{proximity}_3 - \text{proximity}_2 = \text{proximity}_2 - \text{proximity}_1 = \text{proximity}_1 - \text{proximity}_0 = \text{proximity}_0 - \text{proximity}_{\text{Negative}}$ ). The results show that we cannot reject the hypothesis that the relationship between proximity to retirement and late-career work disengagement is linear ( $\chi^2(5) = 3.00, p = .70$ ). When including proximity to planned retirement age as a continuous measure in Model 1a – thereby excluding the respondents who ‘did not know yet’ when to retire and assigning negative values to workers who have passed their planned retirement age (range -5 to 10) – the effect of proximity to retirement is negative and statistically significant ( $b = -0.04, z = -4.21, p < .001$ ). This shows that the further workers are away from their planned retirement age at Wave 2 the smaller their increase of disengagement is over the observed period. Furthermore – as a form of sensitivity analysis – we explored the effect of proximity to retirement for the different items that were included in the disengagement measure. These analyses showed that the effect of the continuous proximity to retirement measure is negative and statistically significant for all but one (i.e., I think it is important to keep myself informed of new developments in my field) of the scale items.

In Model 1b late-career experiences are added to the model. Late-career promotions are negatively related to work disengagement levels at Wave 2. This finding is in line with Hypothesis 3, which predicts that older workers who made promotion disengage less than those who did not have this experience. Compared to those who did not change positions, the disengagement levels of older workers who were promoted decreased over the studied period. For position changes without promotion the negative effect is also in the expected direction,

but only significant at the 10% level. The coefficient for those who changed employers is not statistically significant. As predicted in Hypothesis 6, older workers whose health situation deteriorates disengage more from work than older workers whose health situation does not decline. The coefficient of the late-career health decline dummy variable is positive and statistically significant. The effect of late-career participation in training proved to be not statistically significant.

[TABLE 3 ABOUT HERE]

## **DISCUSSION**

The transition from work to retirement is a complex long-term process. This study clearly shows that the preretirement work disengagement process already starts a couple of years before older workers retire and steadily increases when workers get closer to retirement. So, when approaching planned retirement older workers are not only more likely to perceive their job as more burdensome (Ekerdt & DeViney, 1993) and to increase their frequency of thinking, talking and reading about retirement (Ekerdt et al., 2000; Evans et al., 1985), but also to decrease their work investments, activities and motivation. Besides contributing to the preretirement process literature, these findings contribute to the career literature by showing that during late-careers specific forces (i.e., looming retirement) play a role that might be less important during other career stages. Whereas age has been studied extensively to explain job attitudes and behaviors over the life course (See meta-analyses by Ng & Feldman, 2008; Ng & Feldman, 2010), the temporal dimension of ‘time left to retirement’ is an important – but yet understudied – factor for explaining late-career job attitudes and behaviors.

From a policy perspective the findings are relevant as well. Many western countries are involved in reforms that aim at increasing the labor force participation of older workers



(OECD, 2006). While some of these initiatives (e.g., relaxing institutional barriers, such as abolishing mandatory retirement) might provide older workers with more options for continued work, other initiatives (e.g., abolishing generous early retirement arrangements) might force workers to continue working until older ages. For workers who do not have specific plans for retirement yet these reforms might result in higher planned retirement ages and consequently in a delay of the age at which they start disengaging from work. Older workers who already have specific ideas about when to retire, but are forced to work longer than they originally had planned, might form a specific challenge for organizations in terms of work disengagement. For these workers, relatively large increases in work disengagement were found in this study.

Late careers are not necessarily characterized by a unidirectional pathway of disengagement from work. This study shows that, even though for many studied workers the level of work disengagement increased over the studied period, for others disengagement levels decreased. As proposed in the life course perspective, individual development during late careers seems to be a multidirectional process (Settersten, 2003), reflecting both upward and downward dynamics in disengagement levels. Career-related experiences appear to play an important role in explaining these late-career dynamics. Position changes – in particular those changes that reflect upward mobility – were found to slow down the preretirement work disengagement process, which suggests that achieving a more beneficial job situation might increase the willingness of older workers to contribute to and invest in their job. Employer changes did not have an effect on changes in disengagement levels over time. Probably these changes are less clearly associated with making progression or are more often perceived as undesirable, and therefore do not result in the hypothesized reductions of work disengagement. For employer change, also the limited number of transitions might have played a role. In line with research findings showing that job tenure increases with age (Allen et al., 1999), late-

career between-employer mobility was scarce among the studied workers, and often coincides with other forms of mobility, which might have limited the statistical power to detect the hypothesized effect.

Our findings show that health problems accelerate the disengagement process. Whereas the workers who experienced the most severe health declines most likely have shifted into retirement between the two study waves, even among those whose health situation does not prohibit continued labor force participation (i.e., those in the study sample), declining health results in more work disengagement over time. We found no support for the hypothesis that older workers who participate in late-career training disengage less from their work than those who did not have this experience. Late-career participation in work-related training did not slow down work disengagement over the studied period. In light of current discussions on lifelong learning it should be noted that our study used a rather crude measure of training participation, which did not differentiate between types of training, who initiated the training, and training intensity.

When interpreting the findings of this study, some limitations should be kept in mind. First, in the analyses we assumed that retirement plans have been stable over the studied period. In retirement literature it is well-known, however, that retirement plans change over time (Ekerdt & DeViney, 1993; Wong & Hardy, 2009). For example, changes in the individual's financial opportunity structure could have resulted in postponement of planned retirement. If this is the case we have underestimated the effects of proximity to retirement on changes in disengagement. On the other hand, we might have overestimated the effects of the explanatory variables. Even though the conditional change model has the advantage that it offers a way to control for regression to the mean, effects of the explanatory variables might be overestimated if the lag of the dependent variable is imperfectly measured (Finkel, 1995). Second, although the availability of information on career experiences is an important

strength of our data, the studied late-career variables are based on rather broad retrospective questions. Not all potential forms of late-career mobility could be distinguished. For example, no questions were asked about demotions and no information was available about who initiated the late-career job mobility and training and whether the respondent perceived these experiences as desirable. Moreover, given the focus on workers who are not yet retired, transitions into bridge jobs after retirement are not observed among the studied respondents. Third, even though the selected organizations are highly diverse in their branches of industry and the studied employees vary substantially on important variables like career experiences, work characteristics and health, the workers in the studied sample are not representative of all Dutch older workers. The selected organizations are all large organizations, in which career timetables are generally prominent and the topicality of retirement high (Ekerdt et al., 2000). This might limit the generalizability of the findings to self-employed older workers, or those who work in smaller organizations.

Despite these limitations, this study clearly shows that work disengagement in late careers is both dependent upon career experiences and the anticipated time-left in the labor market. As the life course proposition of lifelong development suggests (Settersten, 2003), for achieving a comprehensive understanding of the retirement process the past, present, and future should be taken into account. Both the “time-in-state”, and the anticipated “time-left-in-state” (Ekerdt & DeViney, 1993, p.S40) – whether this reflects the time-left in the labor force or more broadly the time-left in life (Van Solinge & Henkens, 2010) – will shape the attitudes and actions of individuals. Not only for studying the preretirement process, but also for studying the retirement act itself and postretirement adaptation, it is highly relevant to take this lifelong nature of individual development into account.

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*Table 1 Descriptive statistics of late-career work disengagement items, 2001 and 2006-2007 (N=596)*

Items (translated from Dutch)	Wave 1 (2001)		Wave 2 (2006-2007)	
	Mean (sd)	Item-test correlation	Mean (sd)	Item-test correlation
I do not keep up as well with the latest developments in my field as I did five years ago (reversed) <sup>a</sup>	2.63 (1.15)	0.70	2.83 (1.14)	0.68
I think they should assign new responsibilities to younger persons (reversed)	2.68 (1.04)	0.64	2.78 (1.10)	0.63
I am still as motivated for my work as two years ago	2.24 (0.98)	0.61	2.28 (1.10)	0.63
They should no longer ask me to participate in new courses (reversed)	2.35 (1.10)	0.67	2.83 (1.23)	0.67
I use every possibility to reduce the number of hours I work (reversed)	2.24 (0.97)	0.57	2.35 (1.08)	0.59
I think it is important to keep myself informed of new developments in my field	1.98 (0.70)	0.55	2.07 (0.69)	0.70
Scale late-career work disengagement <sup>b</sup>	2.35 (0.62)		2.52 (0.69)	

<sup>a</sup> Response categories range from 1 = completely agree to 5 = completely disagree

<sup>b</sup> High scale scores represent high disengagement levels

*Table 2 Descriptive statistics of dependent and independent variables (N=596)*

<u>Variables</u>	<u>Mean</u>	<u>SD</u>	<u>Coding</u>
<i>Dependent variable</i>			
Late-career work disengagement W2	2.52	0.69	1–5
Change in work disengagement W2-W1	0.17	0.60	-2–2.5
<i>Independent variables</i>			
Late-career work disengagement W1	2.35	0.62	1–4.5
<i>Anticipated future career</i>			
Time-left to retirement (ref: 6 or more yrs)			
Older than planned retirement age t1	0.09	0.28	0–1
Prox. to planned retirement age: 0	0.07	0.26	0–1
Prox. to planned retirement age: 1	0.13	0.34	0–1
Prox. to planned retirement age: 2	0.13	0.33	0–1
Prox. to planned retirement age: 3	0.13	0.34	0–1
Prox. to planned retirement age: 4	0.17	0.37	0–1
Prox. to planned retirement age: 5	0.09	0.29	0–1
Don't know	0.07	0.26	0–1
<i>Late-career experiences (between Waves 1 &amp; 2)</i>			
Change of position (ref: no change)			
Position change – no promotion	0.18	0.39	0–1
Position change – promotion	0.17	0.38	0–1
Employer change	0.04	0.19	0–1
Participation in training	0.65	0.48	0–1
Health decline	0.33	0.47	0–1
<i>Control variables</i>			
Age at baseline	52.31	1.87	50-59
Gender: woman	0.28	0.45	0–1
Age entering labor market	19.13	4.78	13–50
Type of work: manual	0.09	0.29	0–1
Position: supervisory	0.28	0.45	0–1
Subjective health	4.20	0.73	2–5

*Table 3 Regression of Wave 2 late-career work disengagement on work disengagement at Wave 1, proximity to planned retirement, late-career experiences, and control variables (conditional change models): Coefficients and robust standard errors*

	Model 1a		Model 1b	
	Coef.	SE	Coef.	SE
Constant	2.95*	1.18	2.79**	1.02
Late-career work disengagement W1	0.56***	0.04	0.52***	0.04
<i>Anticipated future career</i>				
Time-left to retirement (a)				
Older than planned retirement age	0.35*	0.17	0.39**	0.13
Prox. to planned retirement age: 0	0.21*	0.09	0.24**	0.09
Prox. to planned retirement age: 1	0.33***	0.08	0.36***	0.09
Prox. to planned retirement age: 2	0.23**	0.08	0.22**	0.08
Prox. to planned retirement age: 3	0.12#	0.06	0.13*	0.07
Prox. to planned retirement age: 4	0.17**	0.06	0.14**	0.05
Prox. to planned retirement age: 5	0.12	0.08	0.10	0.08
Don't know	0.08	0.09	0.08	0.09
<i>Late-career experiences (between waves)</i>				
Change of position (b)				
Position change – no promotion			-0.12#	0.06
Position change – promotion			-0.23***	0.04
Employer change (c)			0.03	0.13
Participation in training (c)			-0.08	0.06
Health decline (c)			0.18**	0.06
<i>Control variables</i>				
Age at baseline	-0.03	0.02	-0.03	0.02
Gender: woman (d)	-0.10	0.07	-0.09	0.07
Age entering labor market	-0.00	0.01	-0.01	0.00
Type of work: manual (e)	-0.02	0.11	-0.01	0.10
Position: supervisory (f)	-0.12*	0.05	-0.11*	0.05
Subjective health	-0.04	0.03	-0.01	0.02
Lambda	0.03	0.15	-0.04	0.11
N (censored/ uncensored)	917/ 596		917/ 596	
Wald chi2 (df)	968.33 (18)***		1394.71 (23)***	
Log pseudolikelihood	-1067.31		-1052.16	

Note: The results reflect Heckman maximum likelihood estimates. In both models, organization is controlled for by including organizational dummy indicators.

Note: Omitted categories are (a) 6 or more years proximate to planned retirement age, (b) no change of position, (c) no, (d) man, (e) nonmanual work, (f) nonsupervisory position.

# p<.10; \* p<.05; \*\* p<.01; \*\*\* p<.001