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Missing work after retirement: The role of life histories in the retirement adjustment process

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Abstract

Purpose of the study. Although the process of adjustment to retirement is often assumed to be related to experiences earlier in life, quantitative empirical insights regarding these relationships are limited. This study aims to improve our understanding of adjustment to the loss of the work role, by conceptualizing retirement as a multidimensional process embedded in the individual life course.

Design and Methods. Analyses are based on panel data collected in 2001, 2006-2007, and 2011 among Dutch retirees (N=1,004). The extent to which retirees miss aspects of the work role (money/ income, social contacts, status) is regressed on information about earlier life experiences, resources, and retirement transition characteristics.

Results. The incidence of adjustment difficulties varies across dimensions. Predictors differ as well. A steep upward career path is associated with fewer financial adjustment difficulties, but with more difficulties adjusting to the loss of status. Compared to continuously married retirees, divorced retirees without a partner are more likely to miss the social dimensions of work and those who repartnered are more likely to miss financial resources. The longer individuals are retired, the less likely they are to miss work-related social contacts.

Implications. Changing life course experiences might have important consequences for retirement processes of future retirees.

Key words. Careers, Family, Health, Life course, Work role loss

Introduction

Retirement is a major transition in the lives of older adults. The process of “getting used to the changed circumstances of life in retirement” has been described as adjustment to retirement (Van Solinge & Henkens, 2008, p.423). Individuals differ considerably in their ease of adjusting to retirement. Although for most retirees the retirement transition seems to go by rather smoothly, a considerable share of retirees experiences adjustment problems (e.g., Pinguart & Schindler, 2007; Van Solinge & Henkens, 2008; Wang, 2007). This study aims to improve our understanding of variation in retirement adjustment, by conceptualizing retirement as a multidimensional process embedded in the individual life course.

Whereas the major theoretical frameworks that have been used to study adjustment to retirement (role theory, continuity theory, and the life course perspective) assume that retirement processes are related to experiences in the past, empirical insights regarding earlier life experiences and retirement adjustment are limited. The central question of this study is: To what extent and how can variation in retirement adjustment be explained by earlier life experiences?

In the literature on retirement adjustment (see reviews Van Solinge, 2012; Wang, Henkens, & van Solinge, 2011) several qualitative studies have pointed at the importance of life histories for understanding perceptions of retirement and adjustment (Barnes & Parry, 2004; Kloep & Hendry, 2006; Nuttman-Shwartz, 2004; Price, 2003). Earlier life experiences in the work, family, leisure, and health spheres seem to be associated with the ease of adjusting to retirement. However, insights regarding earlier life experiences and retirement adjustment based on quantitative studies are scarce. Only few studies explicitly pay attention to more distal life experiences. These studies examine the impact of either work histories (i.e., employment continuity) or family histories (i.e., marital stability) on retirement quality (Price & Joo, 2005; Quick & Moen, 1998) and retirement adjustment problems (Van Solinge & Henkens, 2005).

This study aims to contribute to the literature on retirement adjustment in three ways. First, compared to earlier studies on life histories and retirement adjustment we will build to a greater extent on the life course proposition of ‘multispherical development’ (Settersten, 2003). Consistent with this

proposition, we will not solely focus on earlier life experiences in one life sphere, but simultaneously test the impact of earlier life experiences in the work, health, and family spheres on adjustment difficulties. Given that predictors of retirement adjustment might differ between men and women (Barnes & Parry, 2004; Calasanti, 1996; Szinovacz, 1992), we will pay attention to gender as a potential moderator of life history effects on retirement adjustment.

Second, the retirement transition involves two developmental challenges: adjustment to the loss of the work role and the development of a satisfactory postretirement lifestyle (Van Solinge & Henkens, 2008). Most retirement adjustment studies are based on general measures of psychological comfort such as happiness (Calvo, Haverstick, & Sass, 2009), morale (Kim & Moen, 2002), life satisfaction (Calasanti, 1996; Hershey & Henkens, 2013), or retirement satisfaction (Quick & Moen, 1998), which do not distinguish between these developmental processes. This study aims to improve our understanding of the first developmental challenge – adjustment to the loss of the work role – by directly asking retirees about the extent to which they miss aspects of work since they retired. Missing work has been studied as a predictor of post-retirement morale (e.g., Martin Matthews & Brown, 1987), satisfaction with retirement (McGoldrick & Cooper, 1994), and intentions to unretire (Schlosser, Zinni, & Armstrong-Stassen, 2012), but relatively little is known about the factors that predict this developmental facet of the post-retirement process itself.

Third, instead of using a general measure of missing work after retirement (cf., Skoglund, 1979; Szinovacz, 1992) we will pay attention to the multidimensional nature of the adjustment process. The loss of the work role might imply multiple changes, such as the loss of income, social contacts, status, daily structure, and purposeful activity. Not only might the ease of adjustment differ across these dimensions (Van Solinge, 2012), but also predictors might differ. As Taylor and colleagues (2007) argue, “a composite criterion that simply combines different dimensions may mask more complex relationships between the predictors of adjustment and particular facets of adjustment” (p. 1702). In this study, we focus on three work-related aspects that retirees might miss after retirement – money/ income, social contacts via work, and status – which resemble the dimensions that Van Solinge and Henkens (2005,

2008) distinguish in their measures of preretirement anxiety regarding the loss of the work role.

Especially when examining the role of earlier life experiences in the adjustment process it is important to study these dimensions separately, given that the direction of some relationships can be hypothesized to differ between dimensions.

This article is based on panel data collected in 2001, 2006-2007, and 2011 among 1,004 Dutch older persons, who were all employed at the first wave of data collection and fully retired within the observation period. Retrospective information on earlier life experiences provides the possibility to study the relationships between life history experiences and adjustment. Resources and retirement transition characteristics – which are established correlates of retirement adjustment (Donaldson, Earl, & Muratore, 2010; Pinguart & Schindler, 2007; Wang, 2007; Wong & Earl, 2009) – will also be taken into account in the analyses. In the Netherlands all individuals are covered by a flat-rate basic public pension scheme, and about 91% of employees are covered by earnings-related occupational pension plans in which participation is mandatory. Income 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). The mean retirement age of employees has been around age 61 from 2001 to 2007, and increased to age 63 in 2011 (Statistics Netherlands, 2012).

Theoretical background

The main theoretical perspectives that have been used to study variation in retirement adjustment are role theory, continuity theory, and the life course perspective (Van Solinge, 2012). Role theory assumes that the transition into retirement might be especially difficult for individuals who are highly invested in their work role, and for whom the work role is central to their self-identity (Ebaugh, 1988). Continuity theory generally suggests that most adults will be able to achieve positive results adapting to life transitions, because during their earlier life they have developed relationships, activities, frameworks of ideas, and adaptive skills that create continuity in their lives when making these transitions (Atchley, 1999). The life course propositions of lifelong and multispherical development imply that specific life periods cannot be

understood thoroughly without information on preceding experiences in different life spheres (Settersten, 2003). To integrate these theoretical frameworks Wang and colleagues (2011) propose a resource-based dynamic perspective for studying adjustment to retirement. In this perspective adjustment is conceptualized as a process, which is dependent on individual resources and changes in resources. The extent to which retirees miss money/ income, social contacts, and status, can also be expected to be dependent upon the amount of financial and social resources offered by work, changes in these resources due to retirement, and the availability of alternative resources. Moreover, the importance individuals attach to specific work-related resources may play a role.

Work history

In the literature two main arguments can be found that link work histories to retirement adjustment. Based on a financial argument, it can be expected that employment histories characterized by continuity and upward mobility are positively related to retirement adjustment (Quick & Moen, 1998). Given that pension benefits are dependent upon income and years of service, retirees with these work histories are likely to have an advantageous post-retirement financial situation, which might facilitate adjustment to retirement (Donaldson et al., 2010; Wong & Earl, 2009). We therefore hypothesize that retirees who have worked continuously, full-time, or followed an upward career path are less likely to miss the money/ income provided by work than those who had a more discontinuous career (Hypothesis 1a).

Via a non-financial argument, adjustment to retirement can be expected to be relatively difficult for retirees who followed a continuous or upward work trajectory. These retirees may be highly attached to their jobs and might have had fewer opportunities to invest in alternative roles over the course of their working life (Barnes & Parry, 2004; Quick & Moen, 1998). In that respect, they might perceive the social changes associated with retirement as troublesome. We hypothesize that retirees who have worked continuously, full-time, or followed an upward career path are more likely to miss work-related social contacts (Hypothesis 1b) and status (Hypothesis 1c) than those who had a more discontinuous career.

Health history

The health situation of retirees is often found to be an important resource that enables retirement adjustment (Donaldson et al., 2010; Pinquart & Schindler, 2007; Wang, 2007). Insights regarding the effects of health problems earlier in life are limited though. The experience of severe health problems earlier in life can be expected to increase expenditures (e.g., on health care and medication) and suppress earnings (e.g., due to constraints in work capabilities), which might affect retirees' financial situation and adjustment negatively. We hypothesize that retirees who experienced severe health problems in mid-life are more likely to miss the money/ income provided by work than those who did not experience these health problems (Hypothesis 2a).

Workers who have had health problems earlier in life might experience more difficulties adjusting to the social dimensions of the retirement transition as well. During mid-life they might have had fewer capacities to develop alternative roles, activities, and relationships next to work compared to those who did not experience health problems. Furthermore, persons in poor health might be less capable of replacing lost relationships (Broese van Groenou, Hoogendijk, & Van Tilburg, 2012) and sources of status by new ones, which might make the retirement-related loss of these social resources relatively difficult. It can be expected that retirees who experienced severe health problems in mid-life are more likely to miss work-related social contacts (Hypothesis 2b) and status (Hypothesis 2c) than those who did not experience these problems.

Family history

In studies on retirement adjustment it is generally hypothesized that married retirees experience less adjustment problems than unmarried retirees (e.g., Donaldson et al., 2010; Reitzes & Mutran, 2004; Wong & Earl, 2009). The broad categories of whether or not retirees are married capture, however, a lot of diversity in terms of marital histories, which might be associated with retirement experiences (Price & Joo, 2005). Individuals who have ever been divorced have been found to have significantly lower wealth in preretirement years than the continuously married group, although remarriage partly offsets the

negative divorce effects (Holden & Kuo, 1996; Wilmoth & Koso, 2002). A divorce earlier in life might also result in a relatively large drop in terms of income after retirement for the partner that earned the most during the marriage because of pension sharing. We hypothesize that retirees who have ever been divorced – both those who repartnered and those who remained single – are more likely to miss the money/ income provided by work than the continuously married group (Hypothesis 3a).

Divorces are often accompanied with changes in social networks (Terhell, Broese van Groenou, & Van Tilburg, 2004). Although divorced persons are more involved with friends than persons in their first marriage, divorces negatively affect neighborhood contacts, participation in clubs (for women only), and outdoor recreation (Kalmijn & Broese van Groenou, 2005). Repartnering, however, seems to reverse negative effects of divorce on social integration. Moreover, having a partner can be expected to offer access to relation-specific resources (Van Solinge & Henkens, 2008) and to offer a stable role or identity (Reitzes & Mutran, 2004; Wang, 2007). Especially for divorced persons who remained single, therefore, the social contacts and status provided by the work role can be expected to be highly relevant. We hypothesize that divorced retirees without a partner are more likely to miss work-related social contacts (Hypothesis 3b) and status (Hypothesis 3c) than those who have continuously been married or repartnered after divorce.

The role of gender

In the literature on retirement adjustment, two main arguments can be found on the role of gender (See review by Van Solinge, 2012). On the one hand, women might experience less difficulties adjusting to the loss of the social dimensions of work than men, given that they have more experience in terms of role transitions and career interruptions, and might be more inclined to perceive the family role as their primary role. On the other hand, it can be expected that women experience more financial adjustment difficulties when leaving the work role as compared to men, given that they might be more financially vulnerable due to their more interrupted work careers, employment in secondary labor market positions, and lower likelihood of being married. However, given that the previously discussed life history factors

will capture many of these differences between men and women, gender differences in terms of adjustment to the loss of the work role – net of the life history effects – are expected to be limited.

It might be the case, however, that the impact of certain earlier life experiences on adjustment differs between men and women. Previous research has shown that the financial status of women in later-life is more strongly affected by prior marital dissolution than the financial status of men and persists until remarriage (Fokkema & Van Solinge, 2000; Wilmoth & Koso, 2002). Therefore it can be hypothesized that the effect of being divorced and single on missing the money/ income provided by work is stronger among women than among men (Hypothesis 4a). With respect to the social contacts dimension of missing work, the impact of being single and divorced can, however, be expected to be stronger among men than among women (Hypothesis 4b). The experience of a divorce has been found to have a significant positive effect on support from colleagues and acquaintances among men but not among women (Kalmijn, 2012). This suggests that colleagues are particularly an important source of social support for divorced men, which might make the social changes due to retirement challenging.

Design and Methods

Sample

The NIDI Work and Retirement Panel data are three-wave panel data collected by the Netherlands Interdisciplinary Demographic Institute. In 2001 (Wave 1) data were collected among (a) a random sample of civil servants aged 50-64 years working for the Dutch central government, and (b) all workers aged 50-64 years of three large Dutch multinational private-sector organizations (active in 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%). In 2006-2007 a follow-up study was carried out among surviving and traceable participants of the first wave. A total of 2,239 questionnaires were mailed out, of which 1,678 were returned (response rate 75%). The third round of

data collection took place in 2011 among all 1,638 surviving and traceable respondents of the second wave. The wave-three questionnaire was returned by 1,276 respondents (response rate 78%).

The base sample for the analyses consists of 1,080 respondents who shifted from being in paid work at Wave 1 to being fully retired at either Wave 2 or Wave 3. Given that this study focuses on adjustment to retirement, those who did not make use of an (early) retirement arrangement but stopped working because of unemployment or disability (N=47) were excluded from this base sample. Respondents for whom information on the dependent variables is missing (N=54) or who did not answer the central questions regarding mid-career experiences (N=22) were eliminated from the sample. This results in an analytic sample of 1,004 retirees. On average respondents were retired for 2.5 years when they answered the adjustment questions.

Measures

Dependent variables

To measure adjustment to the loss of the work role across dimensions, fully retired respondents were asked during Waves 2 and 3 to report to what extent they miss various aspects of work since they stopped working. We used the responses provided at the study Wave immediately following the respondent's full retirement. Missing *money/income* and missing *social contacts via work* were both measured by one-item indicators. Missing *status* was measured by a two-item scale (Cronbach's alpha=0.79), which was constructed by taking the mean score of items that ask about the extent to which respondents miss self-esteem and prestige/status since they stopped working (Van Solinge & Henkens, 2005, 2008). Response categories ranged from 1=very much to 5=not at all, but were reversely coded in the analyses. High scale scores indicate that respondents miss the specific work aspect very much. Social contacts are the work-related aspect that respondents are most likely to miss (M=2.56, SD=1.07), followed by financial resources (M=2.38, SD=1.05), and status (M=1.56, SD=0.78). In the multivariate analyses we standardized the dependent variables to obtain effect sizes (Cohen's *d*) for the dummy variables.

Independent variables

To measure continuity of the work career, respondents were asked to indicate the age at which they started working and for how many years in total they have been out of the labor market after that (if applicable). This information was used to calculate the *number of years spent in the labor market at retirement*. Specific work and health experiences in mid-life were measured by two questions that asked for several life experiences – such as *employer change, part-time work, and severe health problems* – whether respondents had these experiences before age 40 and between ages 40 and 50. We constructed a dummy variable per life experience, indicating whether the respondent has had the particular experience before age 50 (cf. Damman, Henkens, & Kalmijn, 2011). Information about *upward mobility* was acquired via the question “how would you characterize the course of your career between ages 40 and 50” (1=no upward mobility; 2=gradual upward career path; 3=steep upward career path). To measure marital histories information about the marital and partner status (i.e., whether the respondent lives with a partner) is combined with retrospective information about whether respondents have ever been divorced. The following categories were distinguished: (1) married/ cohabiting, never divorced; (2) married/ cohabiting, ever divorced; (3) no partner, never married; (4) no partner, ever divorced; (5) no partner, widowed.

In the analyses we control for the respondent’s gender, the study wave at which the dependent variables were measured (Wave 2 or 3), and the time elapsed since the respondent made use of an (early) retirement arrangement. In addition, given that resources and retirement transition characteristics are established correlates of retirement adjustment, we take preretirement financial resources, preretirement perceived satisfaction with life, subjective health, voluntariness of the retirement transition, and age at retirement into account. Table 1 presents the means, standard deviations, coding, and wording of survey questions for all variables. In general item non-response was low (maximum 4.4% on the wealth variable) and was dealt with by using multiple imputation procedures (STATA 12: *mi impute chained*). The variables with missing cases were imputed 25 times using information from the dependent, independent,

and control variables. Thereafter the regression models are estimated for all these 25 datasets and the results are combined (STATA 12: mi estimate).

[Table 1 about here]

Analyses

The relationships between earlier life experiences and the different dimensions of missing work after retirement were analyzed by estimating linear regression models and combining the estimation results by Seemingly Unrelated Estimation. SUE is an appropriate technique when estimating different equations based on the same data. It combines the parameter estimates and (co)variance matrices of the separate regression models (StataCorp, 2007), thereby allowing to test cross-equation differences between coefficients (see Van Solinge & Henkens, 2008, for an application). To deal with the structure of the data (employees of four organizations nested in organizational departments) we control for organization in the analyses and used standard errors that allow for intradepartmental correlation (cluster option in SUE).

Results

Table 2 presents the Seemingly Unrelated Estimation results for the different adjustment dimensions. The models are estimated in two steps. In the first step, the relationships between earlier life experiences and missing money/income (1a), social contacts via work (1b), and status (1c) are examined. In the second step (Models 2a-2c) resources and retirement transition characteristics are added to the equations.

Life history experiences

In Model 1a the extent to which retirees miss money/ income is regressed on information about earlier life experiences and control variables. The results show that experiences in both work and family spheres are associated with missing financial resources after retirement. As predicted in Hypothesis 1a, those retirees who experienced an upward career path – either a steep or a more gradual upward trajectory – are less

inclined to miss money/ income after retirement than those who did not experience upward mobility. Examination of interaction effects with gender (not presented in the table) suggests, however, that the effect of gradual upward mobility is significantly stronger for men than for women ($b(\text{gender}*\text{gradual})=.35, t=2.39, p=.017$). The steep upward mobility effect does not differ significantly by gender. As shown in Model 1a, the coefficients of years in the labor market, mid-life employer change, part-time work, and severe health problems are not statistically significant. Regarding marital histories the findings indicate that retirees who repartnered after divorce, are more likely to miss financial resources than those who have continuously been married, as expected in Hypothesis 3a. Divorced retirees who remained single do not differ significantly from the continuously married group in terms of missing financial resources.

The results regarding missing work-related social contacts after retirement are presented in Model 1b. None of the effects of the studied work and health history experiences is statistically significant. Marital histories, however, are found to be associated with missing work-related social contacts. As expected in Hypothesis 3b, divorced retirees without a partner are more likely to miss work-related social contacts than their continuously married and repartnered ($b=.43, t=2.57, p=.010$) counterparts. Moreover, they are more likely to miss work-related social contacts than single never married retirees ($b=.55, t=3.08, p=.002$).

Model 1c presents the results regarding earlier life experiences and adjustment to the loss of work-related status. Those retirees who experienced a steep upward career path are more inclined to miss status than those who did not experience upward mobility, as predicted in Hypothesis 1c. The other work and health history effects are not statistically significant. Regarding marital histories the results show that single divorced retirees are more likely to miss work-related status than continuously married, single never married ($b=.59, t=2.26, p=.024$), and single widowed ($b=.69, t= 3.70, p < .001$) retirees. The difference with the repartnered group ($b=.40, t=1.70, p=.089$) is in the expected direction but not statistically significant at the 5% level.

With respect to gender the results show that men and women do not differ significantly in their likelihood of missing money/ income, social contacts, and status after retirement. Inspection of interaction

effects suggests that the impact of marital experiences differs between men and women on some dimensions. As expected in Hypothesis 4b the effect of being divorced and single on missing social contacts is smaller for women than for men ($b(\text{gender}*\text{No partner, ever divorced})=-.45, t=-1.92, p=.055$), but is strictly not significant. For the other adjustment dimensions, the impact of being single and divorced does not differ between men and women. The effect of being repartnered after divorce on missing status is significantly smaller for women than for men ($b(\text{gender}*\text{Married/ cohabiting, ever divorced})=-.39, t=-2.30, p=.022$)

F-tests of cross-equation differences between coefficients show that the effect of a steep upward career path differs significantly across all three studied dimensions [money/income vs. social contacts ($F=5.95, p=0.015$), money/income vs. status ($F=15.54, p<.001$), and social contacts vs. status ($F=5.51, p=0.019$)]: Those retirees that experienced a steep upward career path are less likely to miss money/income after retirement, but more likely to miss status, while no association is found with missing social contacts. The coefficient of being single and divorced is significantly larger for missing status than for missing money/ income ($F=10.15, p=0.001$). Another noteworthy result is the role of the control variable time elapsed since retirement, which differs significantly between the money/ income and social contact dimensions ($F=7.10, p=0.008$). The findings show that the more years have elapsed since retirees made use of an (early) retirement arrangement, the less likely they are to miss work-related social contacts. For the financial dimension this effect is not statistically significant.

[Table 2 about here]

The role of resources and transition characteristics

In Models 2a-c resources and retirement transition characteristics are added to the equations.

Preretirement financial resources are negatively associated with missing money/ income after retirement.

Also for preretirement satisfaction with life a negative effect on missing financial resources is observed.

Those who had more financial resources and were more satisfied with life in preretirement years are less

likely to miss financial resources after retirement. For the social contacts and status dimensions, these effects are not statistically significant. The perceived health situation of the retiree is relevant for all studied adjustment dimensions. Retirees in good health are less likely to miss work-related money/ income, social contacts, and status as compared to those in poor health. Also a voluntary retirement transition is related to fewer adjustment difficulties on all studied dimensions. Those who retired at a relatively older age are less likely to miss money/ income than those who retired earlier. For the social adjustment dimensions the effect of age at retirement is not statistically significant.

Comparing the effects of earlier life experiences between the life history models (Models 1a-c) and the expanded models (Models 2a-c), provides insights into the extent to which the effects of earlier life experiences are mediated by the established correlates of adjustment. The results show that the effects of career path and marital history generally remain statistically significant when taking resources and retirement transition characteristics into account, suggesting that these life history effects cannot be fully explained by the established correlates of adjustment.

Discussion

The difficulties retirees experience when adjusting to the loss of the work role are often assumed to be dependent upon experiences earlier in life. In line with the life course notion of multispherical development (Settersten, 2003), this study shows that earlier life experiences in both work and family spheres are associated with missing work after retirement. Regarding work histories the findings show that retirees who had a steep upward career path in mid-life are less likely to miss money/ income, equally likely to miss social contacts, and more likely to miss status, as compared to those that did not experience upward mobility. These findings clearly point out that retirees can miss work for different reasons, depending on their career path in mid-life. Probably mid-career pathways “set the stage” (Settersten, 2003, p.29) for experiences during late-careers and one’s post-retirement situation – either by limiting or promoting resources and opportunities – and consequently shape retirement experiences. Also marital histories were found to play a role. This study shows that divorced retirees without a partner are most likely to

experience difficulties adjusting to the social changes accompanied with the loss of the work role. They were not only more likely to miss social contacts and status as compared to continuously married retirees, but also as compared to single never married retirees, suggesting that among those living without a partner it is important to take diversity in terms of marital histories into account. Also the long-term negative financial consequences of divorce experiences (Holden & Kuo, 1996; Wilmoth & Koso, 2002) are reflected in the data. Those retirees who repartnered after divorce were found to be more likely to miss financial resources after retirement as compared to continuously married retirees. Generally men and women did not differ in terms of their difficulties adjusting to the loss of the work role, although the implications of marital experiences were found to differ slightly by gender. As expected, being divorced and single has a slightly stronger impact on missing work-related social contacts for men than for women.

Paying attention to the multidimensional nature of adjustment appears to improve our insights into the post-retirement process. The results show differences across dimensions in terms of the incidence of adjustment difficulties and processes over time. Moreover, predictors were found to differ across adjustment dimensions, suggesting that some effects (e.g., career path) might have been overlooked when using a combined measure of missing work after retirement. Generally social contacts were found to be the work-related aspect that retirees are most likely to miss. The longer individuals are retired, the less likely they are to miss work-related social contacts, which might either suggest that retirees compensate work-related contacts by other contacts or perceive work-related contacts as less important over time. For financial resources and status the incidence of adjustment difficulties is lower and no time effect is observed. This may indicate that for many persons – at least in our Dutch sample – retirement is not necessarily associated with an important loss of financial resources or status. The lack of a time effect could suggest, however, that for those retirees who do miss financial resources or status, the likelihood of experiencing difficulties does not decline the longer they are retired. Probably income and status remain important needs among retirees (Steverink & Lindenberg, 2006), which may be relatively difficult to compensate for after retirement.

No support was found for the hypotheses regarding various work and health history factors (years in labor market and mid-life employer change, part-time work, and health problems). These findings may suggest that not the amount of time employees have spent in the work role, but rather the investments they made within the work role (reflected in upward mobility) shape their retirement experiences. For the interpretation of the research findings it is important, however, to take the Dutch country context into account. With regard to retirement savings and income much more is organized at a collective level in the Netherlands than, for example, in the United States where individual workers mainly carry the risks and responsibilities (see Van Dalen, Henkens, & Hershey, 2010, for a comparison of the Dutch and US pension systems). Replacement rates are relatively high and the income poverty rates among the elderly are low (OECD, 2011). In this respect, especially adjustment to the loss of the money/ income provided by the work role might be relatively easy in the Netherlands, and its relationships with earlier life experiences might be relatively weak. Whether the incidence and predictors of the different dimensions of missing work after retirement are similar in other countries is an important question for future research. Studying other routes of exiting the labor market, such as disability or unemployment, might also be a relevant venue for future research. Leaving work due to disability or unemployment is likely to result in much less favorable outcomes than the (early) retirement experiences examined in this study, given its relatively poor prospects and inherently involuntary character.

Three limitations of this study should be kept in mind when interpreting the findings. First, we used rather broad retrospective questions to measure work and health histories, which might not have captured the meaning of the work role in sufficient detail. Moreover, several life history measures focus on the period before age 50 and therefore did not capture the years between age 50 and retirement. It might be the case that the impact of mid-life experiences cumulates during one's late career and that these late-career experiences are more influential for shaping post-retirement experiences. In future studies it would be interesting to examine the role of both mid- and late-career experiences, to disentangle their relative importance for explaining post-retirement adjustment. Second, even though the retirees in the study sample form a highly diverse group in terms of earlier life experiences, resources, and retirement

transition characteristics, they were all employed at four organizations. Therefore, the sample is not representative for Dutch older workers. Third, even though availability of information about the extent to which retirees miss work-related aspects is an important strength of the data, it should be noted that missing financial resources and social contacts were both assessed by single-item measures. For future research it is advisable to develop multi-item scales to measure the three adjustment dimensions examined in this study, as well as other adjustment dimensions (e.g., adjustment to the loss of a daily structure).

Despite these limitations this study shows that adjustment to the loss of the work role is a multidimensional process embedded in the individual life course. The findings of this study raise important issues for policy and practice. For policy-makers the findings point out that changing life course experiences might have important implications for retirement quality of future cohorts. Whereas the lives of Dutch men and women born between 1931 and 1940 generally reflected the standard life course, life courses de-standardized among cohorts born after 1950. Variation in behavior increased, for example, divorces became more common (Liefbroer & Dykstra, 2000). These developments might have important implications for the retirement experiences of future cohorts, given that divorced retirees were found to be most likely to experience difficulties adjusting to the loss of the work role. For retirement counseling the results highlight the importance of not solely focusing on the current situation of older individuals, but to view retirement as an integral part of the individual life course.

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Table 1 Means, standard deviations, coding of variables, and wording of survey questions

Variables	Mean ^a	SD ^a	Measurement wave ^b	Coding and psychometric properties	Description/ Wording (questions translated from Dutch)
Dependent variables					
Missing money/ income	2.38	1.05	W2 or W3	1-item scale, range 1 (miss income not at all) to 5 (miss income very much)	Question: could you indicate for the following aspects to what extent you miss these since you stopped working (1=very much to 5=not at all, reversed): money/income
Missing social contacts via work	2.56	1.07	W2 or W3	1-item scale, range 1 (miss social contacts not at all) to 5 (miss social contacts very much)	Question: could you indicate for the following aspects to what extent you miss these since you stopped working (1=very much to 5=not at all, reversed): social contacts via work
Missing status	1.56	0.78	W2 or W3	2-item scale, range 1 (miss status not at all) to 5 (miss status very much), alpha = 0.79	Question: could you indicate for the following aspects to what extent you miss these since you stopped working (1=very much to 5=not at all, reversed): self-esteem and prestige/ status
Independent variables					
Gender	0.24	0.42	W1	Dummy variable coded 0-1, 1=woman	
Wave 3 measure	0.28	0.45	W2 or W3	Dummy variable coded 0-1, 1=dependent variables are measured at W3	Indicator of whether the dependent variables are measured at Wave 2 or Wave 3
Time elapsed since retirement	2.47	1.83	W2 or W3	Continuous variable, range 0-9 years	Time between measurement of dependent variables and age of making use of (early) retirement arrangement
Life history experiences					
Years in labor market at retirement (in 10s)	3.90	0.63	W1	Continuous variable, range 1.2-5.1	Questions: At what age did you start working? Have you temporarily stopped working for more than 1 year after that? If yes, for how many years in total? Years in labor market were divided by 10
Employer change < age 50	0.39	0.49	W2	Dummy variable coded 0-1, 1=changed job/employer before age 50	Two analogous questions concerning different time periods: Can you indicate for the following events whether you experienced them before age 40/ between age 40 and 50? (1=yes, 2=no)
Part-time work < age 50	0.18	0.38	W2	Dummy variable coded 0-1, 1=started working part-time before age 50	
Career path (ref=No upward mobility)			W2	3-category variable: no upward mobility; gradual upward career path; steep upward career path	Question: How would you characterize the course of your career between ages 40 and 50 (1=no upward mobility; 2=gradual upward career path; 3=steep upward career path)
Gradual upward career path	0.46	0.50			
Steep upward career path	0.08	0.27			
Severe health problems < age 50	0.18	0.39	W2	Dummy variable coded 0-1, 1=had severe health problems before age 50	See description of employer change variable
Marital histories (ref=Married/ cohab., never divorced)			W2 or W3	5-category variable: married/ cohabiting, never divorced; married/ cohabiting, ever divorced; no partner, never married; no partner, ever divorced; no partner, widowed	Questions: What is your marital status? Do you have a partner? Have you ever been divorced? Answers were coded into a five-category variable reflecting partner status (i.e., living with a partner) and divorce history
Married/ cohabiting, ever divorced	0.12	0.33			
No partner, never married	0.06	0.23			
No partner, ever divorced	0.06	0.23			
No partner, widowed	0.03	0.17			

Late career resources

Wealth (log)	11.41	1.49	W1	Quasi-interval measure, range 7.73–13.25	Question: How large do you estimate your total wealth (own house, savings, stocks, etc., minus debts/mortgage) to be? (1=less than 10,000 guilders to 7=more than 1 million guilders). We used the natural logarithm of the class averages (transformed to euros)
Perceived pension shortage (ref=yes)			W1	3-category variable: yes; don't know; no	Question: Do you think you have sustained pension shortcomings during your career? (1=no, 2=yes, 3=don't know)
Don't know	0.10	0.30			
No	0.60	0.49			
Perceived satisfaction with life	3.71	0.61	W1 or W2	3-item scale, range 1 (low level of life satisfaction) to 5 (high level of life satisfaction), alpha = 0.71	Questions drawn from Diener, Emmons, Larsen, and Griffin (1985): In most ways my life is close to ideal; The conditions of my life are excellent; So far I have gotten the important things I want in life (1=completely agree to 5=completely disagree, reversed)
Subjective health	4.06	0.77	W2 or W3	1-item scale, range 1 (poor health) to 5 (good health)	Question: How would you characterize your health in general? (1=very good to 5=very poor, reversed)
Retirement transition characteristics					
Voluntary retirement transition	0.74	0.44	W2 or W3	Dummy variable coded 0-1, 1=retired voluntarily	Question: Was your decision to retire entirely voluntary or not?
Age at retirement	59.44	2.82	W2 or W3	Continuous variable, range 53–65	Age at which respondents made use of an (early) retirement arrangement

^aThe descriptive statistics are based on the values prior to multiple imputation. ^bWhether we used the scores provided at Wave 1, 2 or 3, is dependent upon the type of variable and the moment at which the respondent shifted into full-time retirement. For those who were already fully retired at Wave 2, we used the Wave 2 measures of partner status, health, and retirement transition characteristics. For those who transitioned into full retirement between Waves 2 and 3 we used the Wave 3 measures of these variables. The earlier life experiences, preretirement financial resources, and preretirement perceived satisfaction with life were measured at either Wave 1 or 2.

Table 2 Seemingly Unrelated Estimation results of adjustment to the loss of specific work-related aspects^a (standardized), coefficients and robust standard errors (N=1,004)

Explanatory variables	1a-c: Life history models						2a-c: Controlling for established correlates					
	1a: Miss money/ income		1b: Miss social contacts via work		1c: Miss status		2a: Miss money/ income		2b: Miss social contacts via work		2c: Miss status	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Constant	-0.03	0.23	0.46*	0.19	0.35	0.25	5.04***	0.90	1.84	1.18	1.52	1.02
Gender: woman	0.02	0.09	0.15	0.13	-0.07	0.12	-0.03	0.08	0.13	0.11	-0.10	0.11
Wave 3 measure	-0.10	0.09	-0.11	0.08	0.06	0.08	-0.02	0.09	-0.12	0.08	0.05	0.08
Time elapsed since retirement	-0.01	0.01	-0.06***	0.02	-0.03	0.02	-0.01	0.02	-0.05*	0.02	-0.02	0.02
Life history experiences												
Years in labor market at retirement (in 10s)	0.02	0.05	-0.08	0.04	-0.08	0.06	0.06	0.04	-0.08*	0.04	-0.09	0.05
Employer change < age 50	0.08	0.07	0.01	0.07	-0.01	0.06	0.03	0.07	-0.03	0.06	-0.06	0.06
Part-time work < age 50	-0.15	0.11	-0.11	0.10	-0.10	0.10	-0.14	0.10	-0.07	0.09	-0.05	0.09
Career path (ref=No upward mobility)												
Gradual upward career path	-0.24***	0.06	-0.00	0.07	-0.02	0.05	-0.15**	0.06	0.04	0.07	0.02	0.05
Steep upward career path	-0.25**	0.09	0.14	0.13	0.44**	0.15	-0.12	0.10	0.21	0.13	0.53***	0.15
Severe health problems < age 50	0.13	0.10	-0.08	0.06	0.02	0.07	-0.06	0.10	-0.21**	0.07	-0.12	0.09
Marital histories (ref=Married/ cohab., never divorced)												
Married/ cohabiting, ever divorced	0.24**	0.09	0.00	0.10	0.20	0.12	0.18*	0.08	-0.02	0.11	0.19	0.12
No partner, never married	0.11	0.16	-0.12	0.15	0.01	0.14	-0.06	0.13	-0.18	0.13	-0.06	0.12
No partner, ever divorced	0.24	0.16	0.44**	0.16	0.60**	0.19	0.06	0.15	0.30*	0.15	0.45**	0.17
No partner, widowed ^b	0.10	0.13	0.09	0.24	-0.09	0.15	-0.03	0.11	0.02	0.25	-0.15	0.17
Late career resources												
Wealth (log)							-0.08**	0.02	-0.02	0.02	-0.02	0.02
Perceived pension shortage (ref=yes)												
Don't know							0.14	0.11	-0.06	0.09	0.12	0.13
No							-0.23**	0.08	-0.11	0.06	-0.08	0.06
Perceived satisfaction with life							-0.17**	0.06	-0.09	0.05	-0.10	0.07
Subjective health							-0.14**	0.05	-0.12**	0.04	-0.16***	0.04
Retirement transition characteristics												
Voluntary retirement							-0.44***	0.06	-0.42***	0.07	-0.42***	0.11
Age at retirement							-0.04***	0.01	0.00	0.02	0.01	0.02
Lnvar_constant	-0.02	0.05	-0.02	0.03	-0.03	0.06	-0.14**	0.05	-0.08*	0.03	-0.10	0.06
F ^c	3.05		7.01		3.83		19.93		13.55		7.50	

Note 1: * p<0.05; ** p<0.01, *** p<0.001; Note 2: In all models organization is controlled for by including organizational dummy indicators

^a High scores indicate that respondents are more inclined to miss the specific work related resources very much since they stopped working.

^b The group of widowed persons is small (n = 31) so the coefficients should be interpreted with caution.

^c F reflects the value of the original linear regression model, based on which the seemingly unrelated estimates were calculated.