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Postretirement Work Role Residuals

The Role of Prior Work in the Lives of Fully Retired Individuals

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Postretirement work role residuals:**The role of prior work in the lives of fully retired individuals**

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Abstract

Purpose of the study: From a role theoretical perspective it can be expected that individuals differ in the extent to which they experience aspects of the work role after they have fully retired from it.

Quantitative empirical insights regarding these postretirement “work role residuals” are scarce though. This study aims at filling this gap, by developing a measure of postretirement work role residuals and examining these in relation with preretirement work characteristics, engagement in alternative roles, and expectations about retirement.

Design and Methods: Analyses are based on panel data collected in 2001, 2006/7, and 2011 among 860 older individuals in the Netherlands, who were employed at Wave 1 and fully retired after that.

Results: Even though for the majority of retirees prior work plays only a minor role in their current lives, also for a considerable share of retirees prior work is still important. Higher levels of postretirement work role residuals were observed among those retirees who retired recently, used to work in higher occupations, frequently worked overtime, and expected to miss work-related social status in retirement.

Implications: Postretirement work role residuals capture a relevant dimension of the postretirement process that has received limited attention in the literature on retirement of older workers thus far.

Key words: Careers, Older workers, Retirees, Role theory, Postretirement process

Introduction

The transition from work into retirement can be characterized as a complex process that takes place over a longer period of time and can take various forms (Beehr, 1986; Wang & Shultz, 2010). Research has shown that already prior to retirement, the upcoming retirement transition starts playing a role in the way in which individuals experience their work. When getting closer to planned retirement older workers perceive their work as more burdensome (Ekerdt & DeViney, 1993), and start to disengage from their work role by decreasing their work investments, activities, and motivation (Damman, Henkens, & Kalmijn, 2013a). The process character of retirement has also been reflected in studies on late-career employment pathways, which show that individuals increasingly make their actual transition out of work less abrupt by taking up so-called bridge employment (e.g., Kim & Feldman, 2000; Wang, Zhan, Liu, & Shultz, 2008), resulting in blurred exit pathways (Mutchler, Burr, Pienta, & Massagli, 1997). Little is known, however, about the process of work role exit after full retirement, that is, about the way in which the former work role plays a part in the lives of individuals who have fully retired from paid work. This study aims at addressing this gap, by studying the following research question: *To what extent do fully retired individuals experience “postretirement work role residuals” and how can differences between retirees be explained?*

From a role theoretical perspective it can be expected that after exiting a social role, the former role is still of importance in the lives of many individuals. Ebaugh (1988) refers in her work on the process of role-exit to the notion of a “role-residual”, which she defines as “the identification that an individual maintains with a prior role such that the individual experiences certain aspects of the role after he or she has in fact exited from it” (p.173). Also after retirement, individuals might still identify with the former work role. Retirees might differ, however, in the extent to which this is the case. Ebaugh notes, for example, that individuals who exit professional roles or highly visible social roles might be more likely to experience a role residual than individuals exiting nonprofessional roles or less visible roles (Ebaugh, 1988, p.174/175). One area of study in which role residuals have received considerable attention is in research on retirement from professional sports careers. Qualitative studies show that the role of professional athlete is never departed entirely and describe the challenge for ex-

professional athletes to find a way to cope with an identity that is both dependent upon their past and present situation (Drahota & Eitzen, 1998; Stier, 2007).

In the literature on postretirement processes of older individuals, most studies focus on general outcome measures, such as life satisfaction (Calasanti, 1996; Pinguart & Schindler, 2007), psychological well-being (Wang, 2007), happiness (Calvo, Haverstick, & Sass, 2009), or satisfaction with retirement (Quick & Moen, 1998). The role that prior work plays in the lives of fully retired individuals has received limited theoretical or empirical attention thus far. This is remarkable, given that dealing with the loss of the work role is one of the central developmental challenges older individuals face in the retirement process (Van Solinge & Henkens, 2008). Exiting work does not necessarily imply that the work role is completely left behind. Retirees might still miss their prior work (Damman, Henkens, & Kalmijn, 2013b), and might still identify with their former work to cope with the loss of the work role. This identification might be reflected in activities such as talking about their prior work, keeping up with developments in the work field, and doing work-related activities as a hobby. We argue that these work role residuals are not only of importance among very specific occupational groups such as professional athletes, but might be a much more common phenomenon. The first way in which the current study aims to contribute to the literature is therefore by developing a broad measure of postretirement work role residuals, and by examining these residuals in a large heterogeneous sample of retirees.

Second, this study aims to improve our understanding of variation in postretirement work role residuals by examining its relationships with preretirement work and career characteristics, as well as preretirement engagement in alternative social roles. Based on Ebaugh's qualitative work on role exit processes it can be expected that differences between retirees in terms of their identification with the work role can be explained by characteristics of and the level of involvement in the work role prior to retirement (Ebaugh, 1988). In addition to preretirement work and career characteristics, preretirement involvement in other social roles will be taken into account. Preretirement activities such as volunteer work have been shown to be related to the ease of adjustment to retirement (Van Solinge & Henkens, 2008) and might provide an indication of the centrality of the work role to a person's identity.

Third, in addition to the structural indicators of involvement in work and alternative social roles prior to retirement, we examine the role of preretirement expectations about life in retirement. These more psychological factors might reflect a combined evaluation of both the preretirement situation and the anticipated future in retirement. Given a specific structural situation, individuals might differ in the way they evaluate the consequences of retirement (Henkens, 1999). Prior research has shown that preretirement expectations about life in retirement are important predictors of retirement decisions (Henkens, 1999) and adjustment to retirement (Taylor, Shultz, Spiegel, Morrison, & Greene, 2007; Van Solinge & Henkens, 2008). This study will examine whether they also play a role for explaining differences in terms of postretirement work role residuals.

The current study is based on panel data collected in 2001, 2006/7, and 2011 among 860 older individuals in the Netherlands. Given that all respondents were employed at Wave 1 and fully retired in the 10 years after that, we can predict the level of postretirement work role residuals (measured in 2011) by preretirement work characteristics, preretirement engagement in alternative social roles, and preretirement expectations about life in retirement, when controlling for postretirement resources and retirement transition characteristics. The retirement landscape in the Netherlands reflected an “early exit culture” during the years of study (De Vroom, 2004). The mean retirement age of Dutch employees was considerably lower than the public pension age of 65 years. It has been around age 61 from 2001 to 2007, and gradually increased to age 63 in 2011 (Statistics Netherlands, 2013). The coming years the mean retirement age can be expected to increase further, given that policy measures have been taken to restrict early retirement options and to raise the public pension age.

Theory and hypotheses

The central theoretical perspectives that have been used to examine differences in postretirement experiences are role theory, continuity theory, and the life course perspective (Van Solinge, 2012). From a role theoretical perspective it is assumed that individuals differ in the extent to which they are involved in or identify with certain roles (Ebaugh, 1988) – such as the work role – and this might influence the way in which individuals experience the loss of the work role when transitioning into

retirement. Continuity theory proposes that individuals tend to maintain continuity of lifestyle over the life course, for example, by preserving continuity in terms of relationships, activities, and frameworks of ideas across the retirement transition (Atchley, 1999). The life course perspective puts forward that individual development is “lifelong” and “multispherical”, i.e., taking place in multiple interrelated life trajectories (Settersten, 2003). This highlights the importance of not exclusively focusing on the preretirement work role for understanding postretirement processes, but on alternative social roles as well.

When approaching the notion of postretirement work role residuals from these three theoretical perspectives, the theories appear to be complementary rather than contradictory. Generally it can be expected that individuals who were more invested in the work role or less invested in alternative roles, will experience more postretirement work role residuals. As Ebaugh (1988) notes in her role theoretical work, it “is safe to say that the more personal involvement and commitment an individual had in a former role, that is, the more self-identity was equated with role definitions, the more role residual tended to manifest itself after the exit” (p.178). Experiencing certain aspects of the prior work role after full retirement might therefore be the result of the fact that the prior role remains part of a retiree’s identity. Another way of looking at the phenomenon of postretirement work role residuals – which is more in line with the ‘personal agency’ assumption of both the continuity and the life course perspectives – is to perceive role residuals as an adaptive strategy individuals use to cope with important life changes. By still engaging in certain aspects of the former work role, retirees who were highly invested in the work role might maintain continuity in their lives. Over time, however, retirees and their social environment might gradually get used to the role change and find alternative roles that can provide continuity in life (e.g., Mutchler, Burr, & Caro, 2003), which could result in a decline in work role residuals. It can therefore be hypothesized that the more time has elapsed since retirement, the less postretirement work role residuals will be reported (Hypothesis 1).

Structural preretirement factors: involvement in work and other social roles

Involvement in the work role can be expressed in several ways. One important factor that Ebaugh (1988) suggests as a predictor of postretirement role residuals is the level of training and preparation

that is required for conducting a certain type of work (p.178). The more training investments individuals have to make to acquire a specific work role, the more individuals tend to identify with the role, and the more work role residuals might appear after retirement. Generally we hypothesize that preretirement work in higher occupational levels is associated with more postretirement work role residuals (Hypothesis 2). Another indicator of role involvement is time investment in a certain role. It can be expected that individuals who have spent more time in a certain role over the life course are more likely to identify with a specific role and perceive it as more central to their identity. In line with this argument, retirees who have been in the labor market for more years (Hypothesis 3a), who worked more hours in preretirement years (Hypothesis 3b), or who frequently worked overtime hours (Hypothesis 3c) can be expected to experience more postretirement work role residuals.

In addition to preretirement work and career characteristics, also the engagement in preretirement alternative social roles might be associated with the level of postretirement work role residuals. Involvement in alternative social roles might be an indication of the centrality of the work role in the individual's life. For older workers who besides their career job are involved in associations/ sports clubs, volunteer work, or care tasks, the work role might be less central to their identity than for those who do not have these alternative roles. Moreover, individuals who are engaged in these alternative roles already prior to retirement might retain more continuity in life when making the transition into retirement given that they have alternative roles that they may preserve or potentially strengthen. Therefore they might to a lesser extent need the continuity in the sphere of work in terms of postretirement role residuals. We hypothesize that retirees who were engaged in associations/ sports clubs (Hypothesis 4a), volunteer work (Hypothesis 4b), or care tasks (Hypothesis 4c) in preretirement years, experience less postretirement work role residuals compared to those who did not have these alternative roles.

Psychological preretirement factors: preretirement expectations about life in retirement

Given a certain structural situation, individuals might differ with regard to their expectations about the consequences of the loss of the work role in retirement. Especially if the work role is central to the individual's identity, older workers might be anxious for the changes associated with retirement. In

that case, postretirement work role residuals might serve as an adaptive strategy to cope with the retirement transition. Rather than focusing on overall expectations about retirement, we examine different aspects of the retirement experience (cf., Van Solinge & Henkens, 2008). The exit of the work role might imply multiple changes – such as changes in terms of income, health, social contacts, and social status – and older workers might form expectations about all these dimensions.

When perceiving role residuals as part of a process of exiting a specific social role (Ebaugh, 1988) it can be expected that the anticipated consequences of a role change for one's social position in society are particularly important for explaining differences in terms of role residuals. When applying this notion to the retirement process, therefore, preretirement anxiety about the social changes associated with the loss of the work role can be hypothesized to be particularly relevant for explaining differences in postretirement work role residuals. The expected consequences of retirement for financial resources and personal health might be less vital. We hypothesize that the more older workers expect to miss the social contacts (Hypothesis 5a) and social status (Hypothesis 5b) of the work role after retirement, the more postretirement work role residuals they experience.

Design and Methods

Sample

Three-wave panel data of the NIDI Work and Retirement Panel were analyzed to test the hypotheses. In 2001 (Wave 1) data were collected among a random sample of civil servants aged 50-64 years working for the Dutch central government, and all workers aged 50-64 years of three large Dutch multinational private-sector organizations (active in manufacturing, retail, and information and communication technology). A questionnaire was sent by mail to 3,899 older workers. In total 2,403 questionnaires were returned (response rate 62%). The second wave of data collection took place in 2006/7 among surviving and traceable participants of the first wave. A total of 2,239 questionnaires were mailed out, of which 1,678 were completed (response rate 75%). Data collection of Wave 3 took place in 2011 among all 1,638 surviving and traceable respondents of the second wave. The Wave 3 questionnaire was completed by 1,276 respondents (response rate 78%).

The items concerning postretirement work role residuals were included in Wave 3 and were only applicable to individuals who had fully retired from paid work. Therefore, the base sample for the analyses consists of 881 respondents who were fully retired at Wave 3 (i.e., they made use of an (early) retirement arrangement during the study period and did not report any paid work hours at Wave 3). All these respondents also participated in Waves 1 and 2. Respondents who had a missing value on the postretirement work role residual scale ($n = 21$) were excluded from the sample, resulting in an analytic sample of 860 fully retired individuals. On average it was 5.4 years ago that these respondents made use of an (early) retirement arrangement.

Measures

Dependent variable – Fully retired respondents were asked at Wave 3 about their level of *postretirement work role residuals* by using six Likert items with five response options (1 = *completely agree* to 5 = *completely disagree*). The items include both general statements about the perceived role that prior work plays in retirees' current lives, and more specific items about whether retirees keep up with developments in the field, do work-related activities as a hobby, and still like to talk about their prior work (see Table 1). When submitting the data to an exploratory factor analysis using the principal factors method, only one factor was extracted having an Eigenvalue larger than one, suggesting that the items measure one underlying concept. The scale to measure the level of postretirement work role residuals was constructed by taking the mean value of the available items (at least 2 of the 6 items should be answered to be assigned a scale score – 98.6% of the respondents answered all 6 items). The Cronbach's alpha of the scale is 0.77. High scale scores reflect higher levels of postretirement work role residuals. We standardized the scale to obtain effect sizes in terms of Cohen's d for the dummy variables in the analyses.

Independent variables – The time elapsed since retirement was measured by subtracting the age at retirement from the respondent's age at Wave 3 (see Table 2). To measure preretirement work and career characteristics, information was collected about the preretirement occupational level, number of years in the labor market, work hours, and the frequency of working overtime hours. Three aspects of

preretirement involvement in alternative social roles were included in the analyses: whether respondents were involved in associations/ sports clubs in preretirement years, whether they did volunteer work, and whether they had care tasks. Preretirement expectations about the consequences of retirement were measured by asking the respondents about the extent to which they expect negative consequences of retiring in four domains: financial well-being, health, social contacts, and social status. For measuring preretirement characteristics and expectations, we generally used the Wave 1 observation if the respondent retired between Waves 1 and 2, and the Wave 2 observation if the respondent retired between Waves 2 and 3.

In all models the basic demographic characteristics gender and age, and the organization the respondents used to work for are taken into account. Moreover, given that resources and retirement transition characteristics are well-established correlates of postretirement adjustment processes (e.g., Donaldson, Earl, & Muratore, 2010; Pinguart & Schindler, 2007; Wang, 2007), measures of postretirement personal resources (subjective health, subjective income adequacy), social resources (partner status, having grandchildren), and the voluntariness of the retirement transition were incorporated. The exact wording of the survey questions, coding of variables, and descriptive statistics are presented in Table 2. Item non-response was low (maximum of 2.4% on the subjective income adequacy variable). Given that the Heckman selection models (see next paragraph) could not be estimated for multiple-imputed data, single regression imputation was generally used to deal with item non-response. This approach might result in underestimated standard errors. Therefore, we also ran multiple imputation models (STATA 12: `mi impute chained; 25` imputed datasets) to check whether – at least in regression models without correcting for sample selection – multiple imputation procedures result in more conservative findings. The conclusions regarding associations between study variables and postretirement work role residuals did, however, not change when multiple imputation procedures were used.

Analyses

The dependent variable of this study – postretirement work role residuals – can only be observed among individuals who fully retired from paid work during the observation period. Whether

respondents are fully retired or still working (either in a career or bridge job) might, however, be the result of a selective process. To deal with potential sample selection bias, two-step Heckman selection models were estimated. Selection into the sample (i.e., being fully retired versus working) was predicted based on all independent variables that were applicable for both working and non-working respondents, as well as three measures of the preretirement financial situation (i.e., perceived pension shortage, preretirement wealth, and financial dependence of children), which were not included in the outcome equation. Financial variables are well-established predictors of retirement (e.g., Damman, Henkens, & Kalmijn, 2011; Raymo, Warren, Sweeney, Hauser, & Ho, 2011), but can be assumed not to affect postretirement work role residuals directly. The estimated probability of being included in the study sample (converted to Lambda) was incorporated in the outcome equation (i.e., the model for predicting postretirement work role residuals) to account for sample selection.

Results

Descriptive results

The descriptive statistics of the items of the postretirement work role residual scale are reported in Table 1. The results suggest that for a majority of retirees their former work plays only a minor role in their current lives. Almost 60% (completely) agrees with the item that prior work plays absolutely no role anymore, and approximately 70% states that their prior work is “really something that I have left behind”. However, at the same time, a substantial share of retirees is still highly engaged in their prior work role. About 40% still likes to talk about their prior work, almost 25% still keeps up with the latest developments in their field, and 15% is still doing work-related activities as a hobby. Overall the results show a large variation among retirees in the extent to which they still experience aspects of the former work role in their current lives.

Multivariate results

The results of the multivariate regression analyses to explain differences between retirees in their levels of postretirement work role residuals are shown in Table 3. The statistical models were

estimated in several steps. In Model 1, the relationship between the time elapsed since retirement and the postretirement work role residual scale is examined. The results generally show that – as predicted in Hypothesis 1 – the more time has elapsed since retirement, the lower the scores on the postretirement work role residual scale are. Especially retirees who made use of an (early) retirement arrangement more than 8 years ago report significantly lower levels of postretirement work role residuals as compared to the reference group of recent retirees.

In Model 2 preretirement work and career characteristics were added to the model. The findings show that preretirement work in a higher occupational level is related to a higher level of postretirement work role residuals, which is in line with Hypothesis 2. The number of years retirees have spent in the labor market, as well as the amount of preretirement formal work hours are not significantly associated with postretirement work role residuals. What does play an explanatory role, however, is the frequency of working overtime hours. As expected in Hypothesis 3c, older individuals who often worked overtime hours report more postretirement work role residuals compared to those who never worked overtime. We do not find support for the hypotheses that retirees who were engaged in associations/ sports clubs, volunteer work, or care tasks in preretirement years, experience fewer postretirement work role residuals (see Model 3).

The psychological preretirement factors – i.e., preretirement expectations about several domains of the retirement transition – were added in Model 4. The results show that higher levels of preretirement anxiety to miss social status after retirement are positively associated with postretirement work role residuals. Older workers who expected to miss the social status of the work role after retirement experience more postretirement work role residuals compared to those who did not expect to miss social status, as expected in Hypothesis 5b. The effects of the other preretirement expectations about retirement were not statistically significant at the 5% level.

In the final model (Model 5) measures of postretirement resources and the voluntariness of the retirement transition were added, to examine whether the effects of the study variables can be explained by these well-established correlates of retirement adjustment. The results show that the effects of several preretirement characteristics become slightly smaller as compared to the previous model, but cannot be fully explained by the postretirement resources and transition characteristics.

Interestingly, none of the effects of postretirement personal and social resources is statistically significant. Retirees who perceive they have made their transition into retirement involuntarily report significantly higher levels of postretirement work role residuals than those who retired completely voluntarily.

Discussion

Based on a role theoretical perspective, it could be expected that even after full retirement the former work role might still play a part in the lives of individuals. Quantitative empirical insights regarding work role residuals after retirement are, however, virtually absent in the retirement literature. To improve our understanding of this phenomenon, we constructed a measure of postretirement work role residuals and examined its relationships with a broad range of preretirement factors among a sample of full retirees. Generally the results show that – even though for the majority of the fully retired individuals their prior work plays only a minor role in their current lives – for a considerable share of retirees their prior work is still an important part of their life. While the studied retirees were on average already retired for more than five years, still 15% is doing work-related activities as a hobby, one out of four keeps up with the latest developments in their field, and about 40% likes to talk about their former work.

The extent to which the studied retirees experienced postretirement work role residuals was higher among those who retired recently, than among those who made use of a retirement arrangement almost a decade ago. Also preretirement work characteristics, preretirement anxiety about the negative consequences of retirement for one's social status, and involuntary retirement transitions were found to be related to higher levels of postretirement work role residuals. These findings highlight the importance of studying structural and psychological indicators of the work and retirement context simultaneously for understanding retirement outcomes. Preretirement engagement in alternative social roles and postretirement resources appear to be less important for explaining variation in postretirement work role residuals. Especially this latter finding is noteworthy in light of the existing retirement literature, given that resources such as the financial situation, health, and partner status of older individuals are well-established predictors of retirement satisfaction (Van Solinge & Henkens,

2008), life satisfaction (Pinquart & Schindler, 2007), and psychological well-being in retirement (Wang, 2007). This suggests that the newly developed measure of postretirement work role residuals captures a different aspect of the postretirement process.

Among the studied preretirement work and career characteristics, especially occupational level and overtime employment were associated with postretirement work role residuals. Those retirees who used to work in higher occupations and who frequently worked overtime hours reported relatively high levels of postretirement work role residuals, although it should be noted that effect sizes were small. The amount of time the employee formally has spent in the work role did not seem to play an explanatory role. These findings might suggest that not so much the amount of time individuals have spent in the work role, but rather the investments they made and the level of work commitment they showed are of importance for understanding the role that prior work still plays in their lives after retirement. Our quantitative study therefore seems to support Ebaugh's conclusion based on her qualitative work that "time in a previous role was not as important as the amount of training and preparation for the role and the centrality of the role to a person's identity" (Ebaugh, 1988, p.178).

In the current study engagement in alternative social roles prior to retirement did not explain differences between retirees in terms of their levels of postretirement work role residuals. This might indicate that involvement in alternative social roles might not be a good indicator of the centrality of the work role in the lives of individuals. Being involved in one role might not necessarily imply that one cannot be committed to another role. A general motivation to be active could, for example, result in being highly committed to multiple active roles (Caro, Caspi, Burr, & Mutchler, 2009; Hank & Stuck, 2008). It should be noted, however, that the measurements of engagement in preretirement alternative roles in our study were based on broadly formulated questions, which might not have captured the engagement in preretirement alternative roles in detail. No information was available about the numbers of hours the older workers spent on associations/ sports clubs, volunteer work, and care tasks. Moreover, no specific information was available about other potentially relevant preretirement roles, such as caring for grandchildren.

When interpreting the findings some other limitations of the study should be kept in mind as well. Firstly, even though the availability of a broad range of items to measure postretirement work

role residuals is an important strength of the data, there might be dimensions of postretirement work role residuals that are not captured by the current measurement. Extending and further validating the postretirement work role residual measure in other study samples might be a valuable direction for future research. Secondly, no data are available about some aspects of the former work role that according to the work of Ebaugh (1988) might be relevant for explaining differences in terms of postretirement work role residuals, such as the visibility of the work role. Thirdly, although the studied retirees form a highly diverse group in terms of their preretirement work situations and expectations about retirement, postretirement resources, and retirement transition characteristics, they all used to be employed at a limited number of organizations. The sample is not representative of all Dutch retirees. Additionally, the sample does not include some occupations in which potentially high levels of postretirement work role residuals could be expected, such as medical doctors, teachers, or scientists.

Despite these limitations, this study is an important first step toward a better understanding of the postretirement work role exit process. The results show great variation among retirees in terms of the role that prior work plays in their current lives, and highlight the importance of taking a long-term process perspective (e.g., Wang & Shultz, 2010) for understanding these differences. From a scientific perspective, the theoretical question remains whether postretirement work role residuals reflect an active way in which retirees – especially those who strongly identified with the work role – cope with retirement transitions, or whether they rather reflect a residual identity that might to a large extent be maintained by retirees' social contexts. From a societal perspective, an essential question is how work role residuals are related to postretirement well-being and engagement in postretirement productive activities. Do high levels of work role residuals increase the likelihood of engagement in bridge employment or volunteering, or rather limit the engagement in these social roles by serving as a behavioral alternative? Not only for understanding retirement processes, but also for examining attitudes and behaviors of aging individuals more generally, it might be relevant to consider the continuing role of prior work in their lives.

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Table 1 Descriptive statistics of postretirement work role residual items

Items (translated from Dutch)	Completely agree	Agree	Not agree/ not disagree	Disagree	Completely disagree
My prior work plays absolutely no role in my life anymore (<i>n</i> = 855)	25.3	33.8	19.8	18.1	3.0
I do not occupy myself with things from my prior work anymore (<i>n</i> = 858)	14.5	33.5	24.7	21.6	5.8
My prior work is really something that I have left behind (<i>n</i> = 855)	23.6	47.5	17.3	9.4	2.2
I still keep up with the latest developments in my field ^a (<i>n</i> = 858)	2.3	21.8	20.5	31.4	24.0
Many things I used to do in my work, I now do as a hobby ^a (<i>n</i> = 856)	2.0	13.0	16.8	42.6	25.6
I still like to talk about my prior work ^a (<i>n</i> = 859)	6.4	34.1	32.3	18.6	8.6

^aThese items are reversely coded when constructing the postretirement work role residual scale

Table 2 Means, standard deviations, coding of variables, and wording of survey questions

Variables	Mean	SD	Measurement wave ^a	Coding and psychometric properties	Description/ Wording (questions translated from Dutch)
Dependent variable					
Postretirement work role residual	2.52	.74	W3	6-item scale, range 1 (low level of postretirement work role residual) to 5 (high level of postretirement work role residual), alpha = 0.77	Items: My prior work plays absolutely no role in my life anymore; I do not occupy myself with things from my prior work anymore; My prior work is really something that I have left behind; I still keep up with the latest developments in my field (reversed); Many things I used to do in my work, I now do as a hobby (reversed); I still like to talk about my prior work (reversed); 1 = completely agree to 5 = completely disagree
Independent variables					
Gender	0.26	0.44	W1	Dummy variable coded 0-1, 1=woman	
Age	64.94	2.78	W3	Continuous variable, range 60-75 years	
Time since retirement					
Time elapsed since retirement			W3	Four-category variable: 0-2 years, 3-5 years, 6-8 years, > 8 years	Time between Wave 3 and age of making use of (early) retirement arrangement, grouped into 4 categories
0-2 years (reference group)	0.22	0.41			
3-5 years	0.21	0.41			
6-8 years	0.45	0.50			
> 8 years	0.12	0.32			
Structural preretirement factors					
Occupational level			W1	Three-category variable: lower (primary or lower secondary), middle (middle or higher secondary), higher (tertiary)	Question: What is the educational level required for your current job? (1 = primary to 7 = tertiary)
Lower (reference group)	0.16	0.37			
Middle	0.34	0.47			
Higher	0.50	0.50			
Years in labor market at retirement	38.97	6.38	W1	Continuous variable, range 12-51 years	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?
Work hours	36.15	7.22	W1 or W2	Continuous variable, range 8-40 hours	Question: How many hours do you work per week (excluding overtime work)? The values at Wave 1 are based on the information provided by the participating organizations
Overtime work			W1 or W2	Three-category variable: never, sometimes, often	How often do you work overtime (paid or unpaid)? (1 = often to 4 = never)
Never (reference group)	0.23	0.42			
Sometimes	0.54	0.50			
Often	0.23	0.42			
Associations/ sports clubs	0.53	0.50	W1 or W2	Dummy variable coded 0-1, 1=member of association/ sports club	Question: Are you a member of one or more associations/ sport clubs (1 = no; 2 = yes)?
Volunteer work	0.27	0.44	W1 or W2	Dummy variable coded 0-1, 1=engaged in volunteer work	Question: Are you engaged in volunteer work (1 = no; 2 = yes)?
Care tasks	0.19	0.39	W1 or W2	Dummy variable coded 0-1, 1=engaged in care tasks	Question: Do you have care tasks, for example, do you care for your ill mother or a disabled family member (1 = no; 2 = yes)?

Psychological preretirement factors

Financial	2.80	0.99	W1 or W2	1-item scale, range 1 (few negative consequences) to 5 (many negative consequences)	Question: Could you indicate for the following aspects to what extent you expect to miss these when you are retired (1 = very much to 5 = not at all, reversed): money/ income
Health	2.69	1.20	W1 or W2	1-item scale, range 1 (few negative consequences) to 5 (many negative consequences)	Item: Retirement from work will be beneficial to my health (1 = completely agree to 5 = completely disagree)
Social contacts	2.80	1.03	W1 or W2	1-item scale, range 1 (few negative consequences) to 5 (many negative consequences)	Question: Could you indicate for the following aspects to what extent you expect to miss these when you are retired (1 = very much to 5 = not at all, reversed): social contacts via work
Social status	1.60	0.72	W1 or W2	2-item scale, range 1 (few negative consequences) to 5 (many negative consequences), alpha = 0.80	Question: Could you indicate for the following aspects to what extent you expect to miss these when you are retired (1 = very much to 5 = not at all, reversed): self-esteem and prestige/ status

Resources and transition characteristics

Subjective health	3.99	0.83	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)
Subjective income adequacy	3.95	0.81	W3	1-item scale, range 1 (poor financial situation) to 5 (good financial situation)	Question: To what extent can you make ends meet with your current income (1 = very good to 5 = very poor, reversed)
Partner status	0.87	0.34	W3	Dummy variable coded 0-1, 1=has a partner	Questions: What is your marital status? Do you have a partner?
Grandchild(ren)	0.67	0.47	W3	Dummy variable coded 0-1, 1=has grandchild(ren)	Question: Do you have grandchildren?
Involuntary retirement transition	0.30	0.46	W2 or W3	Dummy variable coded 0-1, 1=retired involuntarily	Question: Was your decision to retire entirely voluntary or not?

^aWhether we used the answers provided at Wave 1, 2 or 3, is dependent upon the type of variable and the moment at which the respondent transitioned into retirement. For measuring preretirement characteristics, we most often used the Wave 1 observation if the respondent retired between Waves 1 and 2, and the Wave 2 observation if the respondent retired between Waves 2 and 3.

Table 3 Results of multivariate regression analyses to explain differences in levels of postretirement work role residuals (standardized scale score)^a:
Coefficients and standard errors

Explanatory variables	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Constant	-4.45**	1.35	-3.80**	1.40	-3.76**	1.40	-0.76	1.60	-2.36	1.76
Gender	0.11	0.10	0.14	0.11	0.14	0.11	-0.01	0.11	0.05	0.12
Age	0.07**	0.02	0.06**	0.02	0.06**	0.02	0.00	0.02	0.03	0.03
Time since retirement										
Time elapsed since retirement (ref=0-2 years)										
3-5 years	-0.14	0.10	-0.16	0.11	-0.16	0.11	-0.17	0.11	-0.16	0.11
6-8 years	-0.12	0.10	-0.17	0.11	-0.16	0.11	-0.16	0.11	-0.14	0.11
> 8 years	-0.29*	0.14	-0.31*	0.15	-0.31*	0.15	-0.27	0.15	-0.25	0.15
Structural preretirement factors										
Occupational level (ref=lower)										
Middle			0.18	0.11	0.18	0.11	0.15	0.11	0.14	0.11
Higher			0.24*	0.12	0.24	0.12	0.24*	0.12	0.22	0.12
Years in labor market at retirement			-0.01	0.01	-0.01	0.01	-0.00	0.01	-0.00	0.01
Work hours			0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01
Overtime work (ref=never)										
Sometimes			0.05	0.09	0.04	0.09	0.06	0.09	0.04	0.09
Often			0.26*	0.11	0.25*	0.11	0.30**	0.11	0.24*	0.11
Associations/ sports clubs					-0.01	0.07	-0.00	0.07	-0.01	0.07
Volunteer work					0.10	0.08	0.10	0.08	0.09	0.08
Care tasks					0.03	0.09	0.04	0.09	0.02	0.09
Psychological preretirement factors										
Financial							0.07	0.04	0.02	0.04
Health							0.06	0.03	0.03	0.04
Social contacts							0.05	0.04	0.06	0.04
Social status							0.18**	0.05	0.15**	0.05
Resources and transition characteristics										
Subjective health									0.04	0.04
Subjective income adequacy									-0.09	0.06
Partner status									0.05	0.11
Grandchild(ren)									0.01	0.07
Involuntary retirement transition									0.23**	0.08
Lambda	0.60**	0.18	0.41*	0.19	0.42*	0.19	-0.18	0.24	0.12	0.29
N(censored/ uncensored)	395/ 860		395/ 860		395/ 860		395/ 860		395/ 860	
Wald chi2	15.03		29.74**		31.49*		58.28**		73.35**	

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

^a High scores indicate that respondents report higher scores on the postretirement work role residual scale