

# The Impact of Midlife Educational, Work, Health, and Family Experiences on Men's Early Retirement

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**Objectives.** In empirical studies on predictors of retirement, midlife experiences have often remained implicit or been neglected. This study aims to improve our understanding of retirement by examining the impact of midlife educational, work, health, and family experiences on early retirement intentions and behavior. We distinguish theoretically and empirically between financial and nonfinancial preretirement factors through which midlife experiences could affect retirement.

**Methods.** Using panel data of 1,229 Dutch male older workers, we estimated linear regression models to explain retirement intentions and logistic regression models to explain retirement behavior.

**Results.** Midlife experiences in all studied life spheres are related to retirement intentions. Educational investments, job changes, late transitions into parenthood, and late divorces are associated with weaker intentions to retire early. Midlife health problems are related to stronger early retirement intentions. For midlife work and family experiences, the relationships are (partly) mediated by the preretirement financial opportunity structure. In the educational, work, and health spheres, the preretirement nonfinancial situation has a mediating effect. Only some of the predictors of retirement intentions also predicted retirement behavior.

**Discussion.** Given the destandardization of life courses, information on distal life experiences might become even more important toward understanding retirement in the future.

**Key Words:** Children—Divorce—Education—Life Course—Retirement—Work history.

THE transition from work to retirement can be perceived as a complex process that can follow various pathways and evolve from multiple influences (Szinovacz, 2003). Studies on factors influencing retirement have predominantly focused on proximal precursors of the retirement transition, such as the work, wealth, health, and family situation of older workers (see reviews Schalk et al., 2010; Wang & Shultz, 2010). Even though both in the scientific and in the policy-oriented literature it is assumed that distal life experiences are also of importance for understanding retirement, midlife experiences have often remained implicit (Henretta, 2003; Szinovacz, 2003) or been neglected in empirical studies. This raises the following question: To what extent and how can early retirement of male older workers be explained by midlife experiences in the educational, work, health, and family life spheres?

In the scientific literature, several theoretical perspectives (e.g., life course perspective, continuity theory, role theory) assume that individual development is a longitudinal process (Wang & Shultz, 2010). This implies that individual behavior cannot be understood thoroughly without information on preceding life experiences (Elder, 1994; Settersten, 2003). Especially for understanding the behavior of older individuals, this notion will be relevant because they draw from a relatively great “pool of experiences” (Pienta, 1999, p. 70). In the policy-oriented literature, midlife experiences are also expected to be relevant predictors of labor market

behavior later in life. For example, mid-career opportunities for improving skills, good working conditions, and flexibility of working-time arrangements in midlife are expected to positively influence labor market participation as individuals age (Organisation of Economic Co-operation and Development [OECD], 2006).

Although a few qualitative studies have discussed retirement in light of earlier experiences in different life spheres (August & Quintero, 2001; Higgs, Mein, Ferrie, Hyde, & Nazroo, 2003), quantitative studies have principally focused on the impact of earlier life experiences from one life sphere—work—on one aspect of the retirement process, namely retirement behavior (Elder & Pavalko, 1993; Hayward, Friedman, & Chen, 1998; Mutchler, Burr, Pienta, & Massagli, 1997; Raymo, Warren, Sweeney, Hauser, & Ho, 2009, 2011; Singh & Verma, 2003). A small number of quantitative studies have investigated the impact on retirement of earlier life experiences in both work and family life spheres (e.g., Szinovacz & DeViney, 1999, 2000), albeit with a main focus on women (Hank, 2004; O’Rand & Henretta, 1982; Pienta, 1999; Pienta, Burr, & Mutchler, 1994). Only a few studies have paid attention to the relationships between midlife experiences and aspects of the retirement process that precede retirement behavior (Han & Moen, 1999; Raymo, Warren, Sweeney, Hauser, & Ho, 2010).

This study will contribute to the literature in three ways. First, it will follow the suggestion put forward by Raymo

and colleagues (2009) to build to a greater extent on the life course proposition of “multispherical development.” In line with this proposition, we will not only study experiences in the work and family spheres but also address experiences in other life spheres (i.e., educational and health). Second, hypotheses regarding the impact of midlife experiences on retirement will be formulated and tested in a more systematic way than has often been done. We theoretically and empirically distinguish between financial and nonfinancial preretirement factors through which midlife experiences could affect retirement. Systematically using this distinction appears to be relevant because it indicates “offsetting ways” (Raymo et al., 2011, p. 249) in which midlife experiences may affect retirement. Third, we will not only study the effects of midlife experiences on the behavioral part of the retirement process but also on retirement intentions, which precede retirement behavior. The limited choice employees often have in their actual retirement decisions (Van Soest, Kapteyn, & Zissimopoulos, 2006) and the widespread incidence of involuntary or forced early retirement (Dorn & Sousa-Poza, 2010; Szinovacz & Davey, 2005; Van Solinge & Henkens, 2007) may reduce the effects of midlife experiences on retirement behavior. Studying intentions in addition to behavior may therefore be helpful to achieve a better understanding of the relationships between midlife experiences and early retirement.

This article is based on panel data collected in 2001 and 2006–2007 among 1,229 Dutch male older employees. We focus on men because in the studied Dutch cohorts, men are commonly breadwinners (Liefbroer & Dykstra, 2000) and consequently the main providers of financial resources necessary for retirement. Particularly for men, our understanding of early retirement may thus be improved by distinguishing between financial and nonfinancial ways in which midlife experiences affect retirement. In the Netherlands, the vast majority of employees (91%) is covered by at least some form of occupational pension—most often of the defined benefit type—in which participation is mandatory (see Van Dalen, Henkens, & Hershey, 2010, for a comparison of Dutch and American pension systems). 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 availability of generous early retirement programs, the lack of managerial support for continued work until the official (and mandatory) retirement age of 65 (Henkens, 2005), and societal norms that do not support prolonged labor market participation have all contributed to this early retirement trend. From 2001 to 2007, the mean retirement age of Dutch male employees has been around age 61 (Statistics Netherlands, 2010).

## THEORY AND HYPOTHESES

The life course principle of “human agency within structure” implies that individuals have plans, make choices, and

undertake actions within the opportunities and constraints of their social worlds, which are shaped by history and social circumstances (Elder & Johnson, 2003; Settersten, 2003). Accordingly, midlife experiences (which are part of the individual life history) are expected to affect late-life outcomes (e.g., retirement) via their influence on the individual opportunity structure in preretirement years. The arguments used in the literature to link midlife experiences to retirement have largely been in line with this theoretical starting point.

The dominant argument focuses on finances: Midlife experiences will influence preretirement financial opportunities and constraints and consequently retirement (e.g., Hank, 2004; Hayward et al., 1998; O’Rand & Henretta, 1982; Pienta, 1999; Pienta et al., 1994; Raymo et al., 2009; Szinovacz & DeViney, 2000). The importance of these financial opportunities and constraints for understanding retirement is stressed by the economic rational choice theory. Some studies also noticed that midlife experiences can influence retirement via nonfinancial aspects of the preretirement opportunity structure, such as state of health (Hayward et al., 1998; Raymo et al., 2009), work situation (Hayward et al., 1998; Raymo et al., 2009), or family context (Hank, 2004). In the retirement literature, the importance of these nonfinancial factors is emphasized in other theories, such as expectancy theory and role theory (see Wang & Shultz, 2010, for a review of retirement theories).

Few studies, however, have noted that opposing forces might be at work (an exception is Raymo et al., 2011). For example, via the financial aspects of the preretirement opportunity structure, a specific midlife experience can be expected to result in earlier retirement, whereas via the nonfinancial aspects, the same experience is expected to result in later retirement. For every midlife experience, we will therefore hypothesize below how this experience is related to retirement via (a) financial aspects and (b) nonfinancial aspects of the preretirement opportunity structure (for an overview of hypotheses, see Table 1).

### *Educational Experiences*

On the basis of human capital theory (Becker, 1975), young adults’ investments in education and training during midlife can be expected to increase their productivity and income. The need to recoup these investments will stimulate them to participate in the labor market. Both pension benefits and preretirement-accumulated wealth are dependent upon these earnings during the life course; hence, individuals who invested more in education or additional training might attain the financial security to retire at a younger age than those who made less of these investments. We therefore hypothesize that men who participated more in education or training during midlife (intend to) retire earlier than those who participated less (Financial hypothesis; 1a).

Table 1. Overview of Hypotheses on Midlife Experiences and Retirement

	Hyp. #	Financial hypotheses	Hyp. #	Nonfinancial hypotheses
Educational experiences (<age 50)				
Educational level	1a	Earlier	1b	Later
Additional training	1a	Earlier	1b	Later
Work experiences (<age 50)				
Dismissal	2a	Later	2b	Earlier
Part-time work	3a	Later	3b	Earlier
Employer change	4a	Later	4b	Later
Promotion	5a	Earlier	5b	Later
Health experiences (<age 50)				
Severe health problems	6a	Later	6b	Earlier
Family experiences				
Relatively late first birth	7a	Later	7b	Later
Relatively late divorce	8a	Later	8b	Later

Educational investments will not only influence the preretirement financial situation but also the attributes of preretirement work. Educational attainment has been found to be an important determinant of access to jobs involving complex work, characterized by a high level and broad scope of cognitive challenge (Hyllegard & Lavin, 1992). Because research has suggested that substantively complex or challenging preretirement jobs result in later intended and actual retirement (Hayward, Grady, Hardy, & Sommers, 1989; Hayward et al., 1998; Henkens, 1999), the following prediction can be made: After taking into account the effects of financial opportunities and constraints, men who invested more in education during midlife (intend to) retire later than those who invested less (Nonfinancial hypothesis; 1b).

#### Work Experiences

Over the last few decades, work patterns have changed among Dutch men. Different forms of employment mobility, such as transitions into part-time work, short periods of unemployment, and job switches, have become more common (Luijkx, Kalmijn, & Muffels, 2006). Given that pension benefits are dependent upon income and years of service, these and other forms of midlife employment mobility can be expected to affect retirement through their influence on pension buildup. Unstable work patterns—characterized by midlife experiences of dismissal, part-time work, or employer change—can be expected to slow down pension building and are thus hypothesized to result in later (intended) retirement (Financial hypotheses; 2a, 3a, 4a). Making promotion, conversely, can be expected to enhance pension buildup and is therefore hypothesized to result in earlier (intended) retirement (Financial hypothesis; 5a).

Midlife employment mobility might also affect retirement via the preretirement work situation. For instance, Hayward and colleagues (1998) have argued that upward career mobility will result in later retirement because it is expected to improve working conditions (e.g., more self-direction). Following this nonfinancial line of reasoning, promotions and voluntary employer change can be expected

to result in a more beneficial preretirement work opportunity structure. Consequently, after taking into account the effects of financial opportunities and constraints, midlife employer changes and promotions are hypothesized to result in later (intended) retirement (Nonfinancial hypotheses; 4b, 5b). By contrast, midlife experiences of dismissal and part-time work can be expected to result in a less beneficial preretirement work opportunity structure and are hypothesized to result in earlier (intended) retirement when taking the effects of financial opportunities and constraints into account (Nonfinancial hypotheses; 2b, 3b).

#### Health Experiences

In the retirement literature, it is well-known that persons with health problems in their preretirement years are more likely to retire early than those in good health (see reviews by Feldman, 1994; Schalk et al., 2010; Topa, Moriano, Depolo, Alcover, & Morales, 2009; Wang & Shultz, 2010). Insights regarding the effects of health problems earlier in life are limited though.

In general, midlife health problems 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 will negatively influence employees' preretirement financial situation. Consequently, based on a financial argument, midlife health problems are hypothesized to result in later (intended) retirement (Financial hypothesis; 6a). In the Netherlands, however, because of the mandatory health insurance system (Van de Ven & Schut, 2008), this effect can be expected to be relatively weak.

Health problems in midlife will influence retirement through the preretirement health situation too. Because childhood health issues have been found to increase chronic health problems of persons in their fifties or sixties (Blackwell, Hayward, & Crimmins, 2001)—suggesting that health experiences have long-term consequences—we also expect midlife health problems to increase the likelihood of health problems in the preretirement years. Accordingly, we hypothesize that after taking into account the effects of financial

opportunities and constraints, men who experienced health problems during midlife (intend to) retire earlier than those who did not experience these health problems (Nonfinancial hypothesis; 6b).

### *Family Experiences*

Patterns of midlife experiences in the family sphere have changed considerably during the 20th century. Among other things, entry into parenthood has been postponed, and the proportion of relationships ending in a divorce has increased in the Netherlands (Liefbroer & Dykstra, 2000).

The timing of the transition into parenthood can be expected to affect retirement through preretirement financial opportunities and constraints. Research has shown that financially dependent children make early retirement less likely (Henkens & Tazelaar, 1994; Higgs et al., 2003). Assuming that the later men have their first child, the more likely they are to have financially dependent children in their preretirement years, the following hypothesis can be formulated: The later the transition into parenthood, the later men (intend to) retire (Financial hypothesis; 7a).

A nonfinancial line of reasoning points to a similar relationship between timing of first birth and retirement. Men who had their first child relatively late can be expected to have a preretirement family situation favoring continued work (e.g., children living at home). For them, adopting a retiree identity might not feel appropriate yet. By contrast, men who had their first child at a young age might have a preretirement family situation pulling them out of employment. For example, they are more likely to have grandchildren at a younger age, which might make them feel older (Kaufman & Elder, 2003) and the retiree identity more appropriate and attractive. It can thus be hypothesized that after taking into account the effects of financial opportunities and constraints, the later men made the transition into parenthood, the later they (intend to) retire (Nonfinancial hypothesis; 7b).

Following a financial argument, divorced men are expected to retire later than men who have not experienced a divorce because “a history of marital disruptions can be expected to lower the economic feasibility of retirement even among remarried individuals” (Szinovacz & DeViney, 2000, p. 477). The timing of the divorce might also be of importance. Assuming that men who experienced a divorce a longer time ago have had more time and opportunity to recover from their financial losses, we expect men who experienced a divorce, especially later in midlife, to (intend to) retire later than continuously married men (Financial hypothesis; 8a).

A parallel hypothesis can be formulated when arguing via the nonfinancial aspects of the preretirement opportunity structure. Divorce will reduce the social capital of a person due to a loss of the partner and shared relationships (Terhell, Broese van Groenou, & Van Tilburg, 2004). As a result,

social contacts in the workplace might become more important, making the transition into retirement relatively unattractive. Here timing can also be expected to be relevant. Men who experienced a divorce a longer time ago have had more time to recover from (or to adapt to) their losses (Peters & Liefbroer, 1997; Terhell et al., 2004). Our hypothesis is that after taking into account the effects of financial opportunities and constraints, men who experienced a divorce, especially later in midlife (intend to) retire later than continuously married men (Nonfinancial hypothesis; 8b).

## METHOD

### *Sample*

The hypotheses were tested using panel data collected in the Netherlands. In 2001 (Wave 1), data were collected from older civil servants who were working for the Dutch national government and from older employees of three large Dutch multinational private-sector organizations that are active in the fields of information and communication technology, retail, and manufacturing. A questionnaire was sent to all the private-sector workers aged 50 and older and to a random sample of older civil servants. In total, 3,899 questionnaires were mailed out (2,846 to men) of which 2,403 were completed (response rate 62%). In 2006–2007 (Wave 2), participants of Wave 1 were approached again. There was some attrition because of company takeovers ( $N = 116$ ), untraceable participants ( $N = 4$ ), and mortality ( $N = 44$ ); therefore, 2,239 questionnaires were mailed out (1,665 to men). In total, 1,678 questionnaires were returned (response rate 75%); 1,245 of those were completed by men. The response rates for men were similar to the overall response rates: 63% in 2001 and 75% in 2006–2007.

Because this study focuses on male older workers, the base sample consisted of 1,245 men who completed the survey during both waves of data collection. Men who lacked critical information on the dependent variables ( $N = 2$ ) or who did not answer any of the central questions regarding midlife experiences ( $N = 14$ ) were eliminated from the sample. This resulted in an analytic sample of 1,229 men. Excluded from the analyses on retirement behavior were 17 respondents who did not make use of an early retirement scheme but stopped working between Waves 1 and 2 because of unemployment or disability.

### *Measures*

*Dependent Variables.*—During Wave 1, all respondents were asked about their intentions to retire early by means of five questions that constitute an extended version of the scale used by Henkens (1999; see Table 2 for the wording of the questions). Answers to all five questions were available from most respondents (92.8%). A small minority answered

Table 2. Means, Standard Deviations, Percentages of Missing Values, Coding of Variables, and Wording of Survey Questions

	<i>M</i>	<i>SD</i>	% Missing	Coding and psychometric properties	Wording (questions translated from Dutch)
<b>Dependent variables</b>					
Retirement intentions	7.08	1.50	n/a	Five-item scale, range 0 (weak intention to retire early) to 10 (strong intention to retire early). Cronbach's alpha = .87	Questions: Do you intend to stop working before age 65? (1 = no, 2 = I don't know [yet], and 3 = yes); At which age do you want to stop working? (reversed); Do you intend to continue working after you reach the age of 60? (1 = yes, certainly <sup>a</sup> to 5 = no, certainly not); If there was a possibility to continue working after age 65, would you make use of it? (1 = yes, certainly to 5 = no, certainly not); If you were able to choose, at what age would you like to stop working? (reversed).
Retirement behavior	0.61	0.49	n/a	Dummy variable coded 0–1, 1 = made use of an early retirement arrangement between Waves 1 and 2	
<b>Independent variables</b>					
Age at baseline (May 1, 2001)	54.17	2.90	0.00	Continuous variable, range 50–64	
Midlife educational experiences	1.91	0.40	0.00	Continuous variable, range 1.2–3.8 (proxy of educational level)	Question: At what age did you start working? Reported ages were divided by 10.
Age entering labor market	0.65	0.48	2.69	Dummy variable coded 0–1, 1 = started new training before age 50	See description of midlife work variables.
Additional training	0.05	0.22	3.50	Dummy variable coded 0–1, 1 = was dismissed 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). Missing values were coded as "no" scores.
Midlife work experiences	0.04	0.20	3.25	Dummy variable coded 0–1, 1 = started working part-time before age 50	
Dismissal	0.38	0.49	2.93	Dummy variable coded 0–1, 1 = changed job (other employer) before age 50	
Part-time work	0.85	0.36	2.03	Dummy variable coded 0–1, 1 = got promotion before age 50	
Employer change	0.17	0.38	2.69	Dummy variable coded 0–1, 1 = had severe health problems before age 50	See description of midlife work variables.
Promotion					
Midlife health experiences					
Severe health problems					
Midlife family experiences					
Timing of first child (ref = ages 24–29)	2.03	Four-category variable: no children, first child before age 24, first child between ages 24 and 29, first child at ages ≥30			Question: At what age did you become a father/mother for the first time?
No children	0.12	0.32			
Early (<24)	0.11	0.32			
Late (≥30)	0.27	0.44			
Timing of divorce (ref = married)	0.16	Four-category variable: married and not divorced (incl. widowed), divorced before age 45, divorced after age 45, never married			Question: Have you ever been divorced? If yes, at what age?
Before or at age 45	0.10	0.30			
After age 45	0.04	0.20			
Never married	0.05	0.22			
Preretirement financial opportunity structure					
Wealth (log)	11.54	1.40	3.17	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).

(Table 2 continues)

Table 2. Means, Standard Deviations, Percentages of Missing Values, Coding of Variables, and Wording of Survey Questions

	M	SD	% Missing	Coding and psychometric properties	Wording (questions translated from Dutch)
Perceived pension shortage (ref = yes) <sup>b</sup>			0.16	Three-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). Missing values were coded as "don't know".
Don't know	0.08	0.28			
No	0.65	0.48			
Financially dependent children	0.67	0.90	0.49	Continuous variable, range 0–4	Question: Do you have children who are still financially dependent? If yes, how many?
Preretirement nonfinancial opportunity structure					
Subjective work challenge	3.45	0.88	0.41	Three-item scale, range 1 (low level of work challenge) to 5 (high level of work challenge). Cronbach's alpha = .75	Items: The work that I am doing is not very challenging; My work is characterized by many challenging tasks (reversed); The work that I am doing has become more and more boring and routine (1 = completely agree to 5 = completely disagree).
Subjective health	4.10	0.83	0.16	One-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).
Partner's work status (ref = not working)			0.57	Three-category variable: partner not working, partner working, no partner	Question: To which of the following groups does your partner belong (working, unemployed, disabled, retired, househusband/wife)?
Working partner	0.48	0.50			
No partner	0.09	0.28			

<sup>a</sup>This category also includes respondents ( $N = 31$ ) who indicated they continued working after age 60.

<sup>b</sup>In the Netherlands, an individual is perceived to have a "pension shortage" if his old-age pension is less than 70% of his wages (percentage is not explicitly mentioned in the questionnaire).

four (5.8%), three (1.2%), or two (0.2%) of the questions. Given that response categories differed between the items, an aggregated measure was constructed by calculating the mean score of the available standardized items and by linearly transforming these values into a range from 0 to 10. The scale scores measure how inclined older workers are to retire early, with a high score representing a relatively strong intention to retire early.

Based on information provided during Wave 2, retirement behavior—whether respondents retired early—was determined. Respondents were considered as "retired early" if they made use of an early retirement arrangement (retired before age 65) between Waves 1 and 2.

*Independent Variables.*—Midlife experiences were measured by two types of retrospective questions. In the first type of question, respondents were asked to indicate for several life experiences (additional training, dismissal, part-time work, employer change, promotion, and severe health problems) whether or not they have had these experiences "before age 40" and "between age 40 and 50" For all these experiences, dummy variables were constructed, which indicate whether or not respondents had had these specific experiences before age 50. In the second type of question, respondents were asked to indicate the age at which they had had a specific experience (entering the labor market, having a first child, and getting divorced). All but one question (age of entering the labor market) regarding midlife experiences were asked during Wave 2.

Information was collected on three aspects of the preretirement financial opportunity structure: wealth, pension buildup (perceived pension shortage), and financial dependence of children. Three aspects of the preretirement nonfinancial opportunity structure were also measured: subjective work challenge, subjective health, and work status of the partner. These questions were all asked during Wave 1. Table 2 presents the wording, means, standard deviations, percentages of missing values, psychometric properties, and coding schemes of the independent variables. In general, item nonresponse was low (less than 3.5%). If not mentioned otherwise in Table 2, item nonresponse was dealt with by using single-regression imputation (STATA command *impute*). Given that single-regression imputation might result in underestimated standard errors, we checked—by using the programs *ice* (Royston, 2005) and *mim* in STATA—whether multiple imputation results in more conservative conclusions about the relationships between midlife experiences and retirement. This was generally not the case. As the (Karlson-Holm-Breen (KHB)) method for testing the indirect effects could not be used for the multiple-imputed data, the models presented are based on variables imputed by single-regression imputation.

### Analyses

To examine the relationships between midlife experiences and retirement intentions, linear regression models

Table 3. Models of Retirement Intentions and Behavior, Coefficients, and Standard Errors

Explanatory variables	Retirement intentions <sup>a</sup> (Linear regression model)						Retirement behavior <sup>b</sup> (Logistic regression model)					
	Model 1a		Model 1b		Model 1c		Model 2a		Model 2b		Model 2c	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Intercept	14.90**	0.81	14.42**	1.02	16.20**	1.02	-21.37**	3.34	-21.22**	4.03	-18.43**	4.06
Age at baseline	-0.13**	0.02	-0.15**	0.02	-0.15**	0.02	0.41**	0.06	0.38**	0.07	0.37**	0.07
Midlife educational experiences (<age 50)												
Age entering labor market (in 10s)	-0.57**	0.13	-0.58**	0.13	-0.46**	0.12	-0.44*	0.20	-0.35	0.22	-0.20	0.23
Additional training	-0.17*	0.07	-0.18**	0.07	-0.12	0.08	0.25	0.13	0.22	0.12	0.27*	0.13
Midlife work experiences (<age 50)												
Dismissal	-0.45*	0.22	-0.39	0.21	-0.34	0.19	-0.16	0.37	-0.11	0.35	-0.07	0.34
Part-time work	0.23	0.22	0.24	0.22	0.13	0.22	0.88**	0.34	0.95**	0.32	0.84*	0.35
Employer change	-0.18**	0.06	-0.06	0.07	-0.05	0.07	-0.34	0.17	-0.17	0.19	-0.15	0.20
Promotion	-0.03	0.11	-0.12	0.10	-0.03	0.10	0.23	0.16	0.21	0.17	0.33	0.18
Midlife health experiences (<age 50)												
Severe health problems	0.40**	0.13	0.42**	0.14	0.24	0.14	0.12	0.18	0.11	0.20	-0.17	0.21
Midlife family experiences												
Timing of first child (ref = ages 24–29)												
No children	0.04	0.11	-0.10	0.12	-0.02	0.11	-0.49	0.31	-0.74*	0.32	-0.68*	0.34
Early (<24)	-0.03	0.10	-0.07	0.09	-0.07	0.09	0.18	0.23	0.11	0.22	0.12	0.24
Late (≥30)	-0.38**	0.09	-0.26**	0.09	-0.24**	0.09	-0.54**	0.20	-0.34	0.22	-0.31	0.23
Timing of divorce (ref = married)												
Before or at age 45	0.03	0.22	0.11	0.21	0.11	0.21	0.29	0.30	0.38	0.28	0.36	0.30
After age 45	-0.56**	0.21	-0.33	0.20	-0.11	0.19	-0.40	0.37	-0.10	0.36	-0.02	0.38
Never married	-0.39	0.25	-0.30	0.23	-0.19	0.30	0.93	0.51	0.99	0.51	0.77	0.51
Preretirement financial opportunity structure												
Wealth (log)			0.12**	0.03	0.15**	0.04			0.09	0.07	0.12	0.08
Perceived pension shortage (ref = yes)												
Don't know			0.29*	0.13	0.18	0.12			0.49*	0.24	0.33	0.24
No			0.39**	0.10	0.44**	0.10			0.47*	0.23	0.52*	0.24
Financially dependent children			-0.19**	0.04	-0.19**	0.04			-0.35**	0.08	-0.37**	0.08
Preretirement nonfinancial opportunity structure												
Subjective work challenge					-0.31**	0.05					-0.34**	0.09
Subjective health					-0.21**	0.04					-0.35**	0.08
Partner's work status (ref = not working)												
Working partner					-0.00	0.06					-0.30	0.16
No partner					-0.39	0.22					-0.16	0.38
<i>N</i>	1229		1229		1229		1212		1212		1212	
<i>F</i>	37.14		49.12		84.28							
Wald $\chi^2$							192.87		232.36		389.35	
<i>R</i> <sup>2</sup> /Pseudo <i>R</i> <sup>2</sup>	0.21		0.24		0.29		0.23		0.25		0.27	

Notes: In all models, organization is controlled for by including organizational dummy indicators.

<sup>a</sup>Retirement intentions: High scores indicate that respondents are more inclined to retire earlier.

<sup>b</sup>Retirement behavior: Indicating whether (=1) or not (=0) respondent retired early between Wave 1 and Wave 2.

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

were estimated. For retirement behavior, we used logistic regression models. To test the hypotheses, we analyzed the data in three subsequent steps. In the first step, the relationships between midlife experiences and retirement were tested without controlling for aspects of the preretirement opportunity structure (a models). In the second step, measures of the preretirement financial opportunity structure were added to the equations (b models). In the final step, we added measures of the preretirement nonfinancial opportunity structure (c models). In addition, by means of the KHB method (STATA command *khb*), we formally tested whether the financial and nonfinancial preretirement opportunity structure mediated the relationships between midlife experiences and retirement. This method provides unbiased decompositions of total effects into direct and indirect effects

for both linear and nonlinear models (Breen, Karlson, & Holm, 2011). To deal with the multilevel structure of the data (employees of four organizations who are nested in organizational departments), standard errors that allow for intradepartmental correlation were used in the analyses (STATA command *vce(cluster)*). Organizational dummy variables were included in the models to control for potential organizational-level effects.

## RESULTS

The results of the multivariate linear regression analyses to explain retirement intentions (Model 1a–1c) and the logistic regression analyses to explain retirement behavior (Model 2a–2c) are presented in Table 3.

Table 4. Indirect Midlife Effects via the Preretirement Financial Opportunity Structure and the Preretirement Nonfinancial Opportunity Structure Calculated by Means of the KHB Method, Coefficients, and Standard Errors

Explanatory variables	Retirement intentions via				Retirement behavior via			
	Financial situation (cf. Model 1b)		Nonfinancial situation (cf. Model 1c)		Financial situation (cf. Model 2b)		Nonfinancial situation (cf. Model 2c)	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Midlife educational experiences (<age 50)								
Age entering labor market (in 10s)	0.01	0.04	-0.12**	0.04	-0.08	0.08	-0.17**	0.05
Additional training	0.01	0.02	-0.06*	0.03	0.03	0.03	-0.07*	0.03
Midlife work experiences (<age 50)								
Dismissal	-0.07	0.04	-0.05	0.04	-0.09	0.06	-0.06	0.06
Part-time work	-0.03	0.04	0.11*	0.05	-0.05	0.05	0.10	0.07
Employer change	-0.12**	0.03	0.01	0.02	-0.15*	0.07	0.01	0.03
Promotion	0.09*	0.04	-0.10**	0.04	0.03	0.08	-0.13*	0.06
Midlife health experiences (<age 50)								
Severe health problems	-0.02	0.03	0.20**	0.04	0.01	0.04	0.31**	0.07
Midlife family experiences								
Timing of first child (ref = ages 24–29)								
No children	0.11**	0.04	-0.10**	0.04	0.20**	0.06	-0.13*	0.05
Early (<24)	0.03	0.03	0.01	0.03	0.06	0.04	0.02	0.04
Late (≥30)	-0.12**	0.04	-0.02	0.02	-0.22**	0.06	-0.03	0.03
Timing of divorce (ref = married)								
Before or at age 45	-0.08*	0.03	0.01	0.05	-0.09	0.05	0.06	0.07
After age 45	-0.22**	0.05	-0.19	0.11	-0.30**	0.09	-0.05	0.18
Never married	-0.08	0.05	-0.09	0.19	-0.06	0.06	0.29	0.31

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

#### Explaining Retirement Intentions by Midlife Experiences

The results of Model 1a in Table 3 show that midlife experiences in all studied life spheres are related to retirement intentions. Entering the labor market at an older age and additional training during midlife are related to weaker early-retirement intentions as are work experiences of dismissal and employer change before age 50. The coefficients for part-time work and promotion are not statistically significant. Health problems during midlife are related to a stronger intention to retire early. Regarding family midlife experiences, the results show that men who had their first child after age 30 intend to retire later than those who had their first child between ages 24 and 29. Men who divorced after age 45 are more inclined to retire later than never-divorced married men.

The financial aspects of the preretirement opportunity structure (added in Model 1b) are also highly relevant when explaining retirement intentions. The wealthier the workers, the stronger their intention to retire early. Older workers without a pension shortage are more inclined to retire early than workers with one. The more financially dependent children older workers have, the weaker their intention to retire early. Aspects of the nonfinancial preretirement situation (added in Model 1c) explain retirement intentions as well. Both a challenging job and a good health situation at baseline are related to weaker intentions to retire early. The effect of the partner's work status is not statistically significant.

Table 4 presents the financial and nonfinancial indirect effects calculated by the KHB method. The financial hypotheses for retirement intentions are tested in the first

column (cf. Model 1b). The negative financial indirect effect of employer change suggests that men who changed employers before age 50 have weaker intentions to retire early because of their less beneficial preretirement financial situation, which supports hypothesis 4a. For midlife promotion, the results are also in line with the financial hypothesis (5a): Promotion is related to a more beneficial preretirement financial situation, and therefore to stronger early retirement intentions. For the other work experiences, the hypotheses are not supported (2a and 3a). The negative financial indirect effects of late first birth and late divorce suggest that these experiences result in later intended retirement, partly due to their negative consequences for the preretirement financial situation. These findings support hypotheses 7a and 8a. For the midlife educational and health experiences, the financial hypotheses (1a and 6a) are not supported.

The findings to test the nonfinancial hypotheses are reported in the second column of Table 4 (cf. Model 1c). The negative nonfinancial indirect effects of midlife educational investments and promotion are in line with the nonfinancial hypotheses (1b and 5b). Disentanglement of these indirect effects (not presented in the table) indicates subjective work challenge as the main mediating variable. Hence, midlife educational investments and promotion relate to weaker early-retirement intentions partly because they are associated with more challenging preretirement work. The positive nonfinancial indirect effects of part-time work and health problems in midlife also support the nonfinancial hypotheses (3b and 6b). Health problems in midlife are related to health problems in the preretirement years and

consequently to stronger intentions to retire early. No support was found for the other nonfinancial hypotheses in the work (2b and 4b) and family spheres (7b and 8b).

#### *Explaining Retirement Behavior by Midlife Experiences*

The results of Model 2a in Table 3 show that some of the examined midlife experiences are related to retirement behavior. The older a worker was when entering the labor market, the less likely he will retire early. Part-time work before age 50 results in a higher likelihood of early retirement. Furthermore, men who made the transition into parenthood relatively late are less likely to retire early.

Model 2b shows that the preretirement financial situation is relevant when explaining retirement behavior. Men without a pension shortage are more likely to retire early compared with those with one. The more financially dependent children men have, the lower their likelihood of early retirement. The nonfinancial preretirement situation also explains retirement behavior (Model 2c): A higher level of preretirement work challenge and better preretirement health result in a lower likelihood of early retirement.

The third column of Table 4 presents the KHB models to test the financial retirement behavior hypotheses. The negative financial indirect effect of employer change is in line with the financial hypothesis (4a). For the other midlife work experiences, the hypotheses are not supported (2a, 3a, and 5a). The negative financial indirect effects in the family sphere support the financial hypotheses (7a and 8a). For example, men who experienced a late first birth are less likely to retire early because they still have financially dependent children in their preretirement years. For the educational and health experiences, the financial hypotheses are not supported (1a and 6a).

The findings to test the nonfinancial retirement behavior hypotheses are reported in column 4 of Table 4. The negative nonfinancial indirect effects of the age of entering the labor market, midlife additional training, and promotion support the nonfinancial hypotheses (1b and 5b). The positive nonfinancial indirect effect of midlife health problems is also in line with the nonfinancial hypothesis (6b). The other nonfinancial hypotheses in the work (2b, 3b, and 4b) and family spheres (7b and 8b) are not supported.

#### **DISCUSSION**

The transition from work to retirement is a complex process influenced by multiple factors. This study shows that midlife experiences in various life spheres already “set the stage” (Settersten, 2003, p. 29) for retirement decision making. Not only midlife experiences in the work sphere—which have been central in studies among men—but also those in the educational, health, and family spheres are important for understanding men’s retirement process. These results underscore the significance of the life course

proposition of multispherical development. Given that work participation of middle-aged Dutch men is hardly influenced by their experiences in the family sphere (Liefbroer & Dykstra, 2000), it is particularly interesting to see that midlife family experiences do influence intended and actual labor market participation later in life. A relatively late transition into parenthood is associated with later retirement, which resembles research findings among women (Hank, 2004; Pienta, 1999).

The theoretical and empirical distinction that has been made between financial and nonfinancial aspects of the preretirement opportunity structure via which midlife experiences can influence retirement appeared to be informative. First, this approach improves our understanding of the way in which midlife experiences affect retirement. The results show that several experiences in the work and family spheres are related to retirement because of their consequences for the preretirement financial situation. The importance of financial factors in explaining retirement is emphasized by economic rational choice theory. In the educational and health spheres, the preretirement financial situation does not seem to play an explanatory role. Experiences in these spheres, as well as some midlife work experiences, affect retirement via the preretirement nonfinancial situation (i.e., work characteristics and health status). These nonfinancial factors have been emphasized in other theories, such as expectancy theory.

Second, the mediation tests improve our understanding of why some midlife experiences (e.g., promotion) do not have a total effect on retirement: Opposing indirect effects appear to be at work. For example, promotion is related to a stronger intention to retire early because making promotion results in a more beneficial preretirement financial situation. But promotion is related to later intended retirement because it results in a more challenging preretirement work situation. Some effects of midlife experiences on retirement remained significant after controlling for the financial and nonfinancial aspects of the preretirement opportunity structure. On the one hand, this might be due to the fact that our measures of the preretirement opportunity structure do not fully capture the preretirement situation of older workers. For example, data on income and social capital were not available. On the other hand, it might be that midlife experiences influence retirement via other factors, such as life goals or attitudes regarding work and leisure, for which theory stills needs to be developed (Raymo et al., 2011).

Studying retirement intentions in addition to retirement behavior has proven to be highly relevant. Whereas only a few midlife experiences could explain differences in retirement behavior, most of the midlife experiences we studied could explain differences in retirement intentions. These findings might reflect the limited freedom employees have in their actual retirement decision or changing opportunity structures later in life, which thwart the effects of midlife experiences on retirement behavior. Especially the restrictions

that Dutch employers imposed on retirement behavior in recent decades might have caused the discrepancy between predictors of retirement intentions and behavior. Opportunities for later or gradual retirement have been rare (Van Soest et al., 2006). In the future, however, these discrepancies might be reduced. Dutch employers increasingly encourage workers to remain employed until age 65 (Conen, Henkens, & Schippers, 2011). Moreover, there is a shift from “standardised and collective approaches to all kinds of flexible and individualised plans” (De Vroom, 2004, p. 146), which might increase employees’ individual freedom to decide how and when to retire. Both these trends suggest that our results in the model for retirement intentions will become more important in the near future.

When interpreting the research findings, some limitations of this study should be kept in mind. First, even though the selected organizations are highly diverse in their branches of industry and retirement arrangements and the sample has substantial variation in important variables like midlife experiences, work characteristics, and health, the workers in the studied sample are not representative of all Dutch male older workers. This might limit the generalizability of the findings to the national level. Furthermore, the specific characteristics of the Dutch pension and health care systems might limit the generalizability of the findings to other countries. Second, though the availability of information on midlife experiences is an important strength of our data, it cannot be ruled out that recall or memory bias effects play a part. Past events and experiences have most likely been recorded in terms of the present (Elder & Johnson, 2003). However, the salience and low incidence of the studied life events might have influenced recall accuracy positively (Eisenhower, Mathiowetz, & Morganstein, 1991).

Despite the limitations, this study clearly shows that the transition from work to retirement is related to midlife experiences. In light of policy objectives to increase the labor force participation of older workers (OECD, 2006), these findings suggest, on the one hand, that measures directed at workers in midlife (e.g., additional training) might positively influence their labor market participation later in life. On the other hand, the results suggest that changing life courses might contribute to a future trend toward later intended retirement. Whereas the lives of Dutch men and women born between 1931 and 1940 generally reflected the standard life course, life courses destandardized among cohorts born after 1950. Variation in behavior increased (e.g., divorce became more common), and major responsibilities (e.g., entry into the labor market, family formation) were postponed (Liefbroer & Dykstra, 2000). When linking these trends to the findings of this study, we would expect a decline in the desire to retire early in the (near) future—at least among men. Whether the relationships between midlife experiences and retirement are similar for (Dutch) women would be a highly relevant question to address in future research. Given the destandardization of life courses, studying retirement as a process embedded

in the total life course will become increasingly important for understanding retirement in the future.

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