

Origins and Mechanisms of Social Influences in Couples: The Case of Retirement Decisions

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Abstract

The interdependence between partners raises considerable interest in the sociology of life course, work, and families. Partner influences play a particularly important role in the work domain, because each partner's work decisions have profound effects on the couple as a whole. In contrast to previous research, this article pays detailed attention to the role a partner plays in workers' labour market decisions by analysing the case of early retirement decisions. We hypothesized that partners' preferences for older workers' retirement originate from altruism and self-interest. Moreover, we expected that partners influence older workers' early retirement behaviour via persuasion and pressure. To adequately estimate partners' and workers' preferences for the worker's retirement, we used an instrumental variable approach. This was possible because we collected multi-actor longitudinal data from a large representative sample of older workers and their partners in the Netherlands. The results support that spousal preferences originate in altruism and self-interest and that partners influence workers through persuasion and pressure. Gender differences in origins and mechanisms of partner influence are also discussed.

When two people share their lives, either as cohabiting or marital partners, they will inevitably influence one another. The interdependence between partners raises considerable interest in the sociology of life course, work, and families. Partner influences play a particularly important role in the work domain, because each partner's work decisions have profound effects on the couple as a whole. Such effects might be due to the social capital provided by participation in the labour market: each partner benefits from the social capital the other obtains (e.g. [Bernasco, de Graaf and Ultee, 1998](#); [Blossfeld and Drobnic, 2001](#); [Verbakel and De Graaf, 2009](#); [Bröckel,](#)

[Busch-Heizmann and Golsch, 2015](#)). Partner influence in the work domain might also run through economic mechanisms, such as in the case of the division of paid work and childcare ([Raley, Bianchi and Wang, 2012](#)). In addition, partners influence each other's careers indirectly via decisions about where to live, as the literature on tied movers and tied stayers has shown ([Geist and McManus, 2012](#)).

A relatively understudied example of partner influence lies in the decision to retire early. Examining the role a partner plays in the early retirement decision is important, because most older workers approach retirement

with a partner by their side (Statistics Netherlands, 2018a). Moreover, partners of older workers form an increasingly diverse group in terms of gender and work status. Nowadays, a rising number of women—and married women in particular—are in paid employment when reaching the public pension age (Statistics Netherlands, 2019a,b). This development leaves workers of both genders likely to face retirement in a couple context. Moreover, it means that the situations in which she is employed while he is retired are increasingly common. In this article, our aim is to shed more light on the nature of partner influences in the decision to retire early. In this study, we examine (i) why partners have specific preferences for the worker's retirement, and (ii) how these preferences affect the worker's early retirement decision.

Previous research can be categorized into indirect and direct studies of the role a partner plays in workers' retirement decision. The first category consists of studies that investigate how partner characteristics, such as work status and health, affect workers' retirement (Dahl, Nilsen and Vaage, 2003; Schirle, 2008; Loretto and Vickerstaff, 2013). The interest in partners' work status is primarily driven by its role in making the shared time more or less likely upon workers' retirement (Genadek, Flood and Moen, 2019). Partners' health has been argued—and found—to affect retirement: workers might either expand their working lives to pay for formal care giving or retire early to assume informal care tasks (Johnson and Favreault, 2001). Indirect studies such as these acknowledge that a cohabiting or marital partner forms a part of the context in which older workers take their decision to retire. However, they only look at the characteristics of the partner, not at the preference the partner might have concerning the worker's retirement or at the way a partner tries to influence the worker.

The second category of studies into the role a partner plays in workers' retirement decision investigates the effect of a partner's preference on workers' retirement. Many of these studies, however, rely on workers' perceptions of their partner's preference (Henkens and Tazelaar, 1997; Van Dam, Van der Vorst and Van der Heijden, 2009). The general finding is that perceived partner preferences affect older workers' intentions for and actual early retirement. The approach of these studies does not do justice to the active role of partners, because workers' perceptions do not necessarily coincide with their partner's actual preference (Kenny and Acitelli, 2001). Only a few studies directly assess partners' preferences and take a true multi-actor approach to retirement decision-making. Henkens (1999), for example, collected data from both members of the couple

and showed that workers' early retirement intentions were affected by whether their partner preferred them to retire early or not. Szinovacz and DeViney (2000) investigated the effect of the partner's preference on workers' retirement behaviour. They found that women, but not men retired earlier if their partner preferred the worker to stop working. However, this study did not control for workers' own preferences. As the members of a couple usually influence each other's attitudes (Davis and Rusbult, 2001), Szinovacz and DeViney (2000) might have overestimated the effects of partner influence on women: these effects may have been confounded by the indirect effect of workers' own preferences via their partner's preference.

This study contributes to the literature in three ways. First, the study aims to unravel the nature of partner influence. More specifically, we focus on the *origins* of partners' preferences for the worker's early retirement and the *mechanisms* of partner influence on the worker's retirement behaviour. The origins of partners' preferences on older workers' retirement pertain to the question of why partners have specific preferences for the worker's retirement. The mechanisms of partner influence on older workers' retirement pertain to the ways in which partners' preferences influence the worker's retirement decision. Second, we collected new multi-actor data on older couples approaching retirement. In the NIDI Pension Panel Study, data were collected from workers ($n = 6,793$) as well as their partners. This kind of multi-actor data is scarce compared with data available for individual-level models. However, it is a prerequisite for adopting a true multi-actor perspective and taking interdependencies between the preferences of both members of a couple into account. Third, the survey data were supplemented with administrative data about workers' early pension uptake, which provided us the opportunity to study the relation between early retirement preferences and behaviour in a longitudinal manner. This is an advancement of the literature on partner influences that generally focused on either retirement preferences or retirement behaviour (Henkens, 1999; Szinovacz and DeViney, 2000).

This study was carried out in the Netherlands. Here, as elsewhere, demographic changes face the government with the challenge to guarantee adequate retirement income while securing financially sustainable pension systems (OECD, 2017). The Dutch government recently reformed the pension system to address this challenge. Reforms included gradually increasing the eligibility for state pension from age 65 to 67 and linking it to life expectancy in 2021. Moreover, opportunities to retire early were limited. These reforms have weakened the

early retirement culture (Euwals, Van Vuuren and Wolkhoff, 2010), but there is still considerable variation in the age at retirement with many workers retiring before reaching the public pension age (Statistics Netherlands, 2018c).

Theoretical Framework

Origins of Partners' Preferences

Partners' preferences can be endogenous as well as exogenous. Partners have endogenous preferences when they adapt their own preferences for the worker's retirement to the preference the worker has for himself/herself. Partners have exogenous preferences when they develop their preferences for the worker's retirement based on their own considerations. On the one hand, partners might base their preferences on what they think will benefit the worker (altruism). On the other hand, they might prefer what they think is most beneficial to themselves (self-interest). We elaborate on altruism and self-interest as origins of partners' preferences for the worker's early retirement below.

Altruism

Altruism is defined as a selfless concern for the well-being of other people (Mansbridge, 1990). While psychologists mainly focus on the personal characteristics that distinguish variation across individuals, sociologists focus on contextual conditions that foster or discourage altruistic behaviour (Simpson and Willer, 2015). However, the general consensus is that people have reasons to prefer or act to bring about certain positive events for others even though these do not benefit themselves or might even harm their own self-interest (Piliavin and Charng, 1990). The tendency to act selflessly is particularly strong in communal relationships like marriage (Clark *et al.*, 2010). Altruism does not necessarily lead to preferences or behaviour that are in line with the other person's preferences (Oakley, 2013). In the case of retirement, discrepancies may result from a partner's and a worker's differential evaluations of the costs and benefits of retirement. For example, a worker might inadequately perceive a net cost of early retirement and thus have different preferences than a partner who accurately estimates its net benefits for the worker.

Altruistic reasons to prefer a worker's early retirement might arise first of all from the work sphere. The level of stress that a worker experiences due to work influences whether his/her partner expects the worker to benefit from early retirement. We thus expect partners to have a stronger preference for the worker's retirement

the more stress the worker experiences from work. Another factor that gives rise to altruistic reasons for a partner to prefer the worker's early retirement is the worker's health. The worker's actual health and the extent to which the partner worries about the worker's health will influence how important it is for a partner to see the worker's health improved. As retirement is generally associated with healthier behaviour (Syseet *al.*, 2017) and has been shown to slow down health declines (Van Den Bogaard, Henkens and Kalmijn, 2016), partners are likely to see retirement as a health-investment strategy. We thus expect partners to have a stronger preference for the worker's retirement the worse the worker's health is and the more partners worry about the worker's health. Given the expectations mentioned above, we propose our *altruism hypothesis*: *The greater the possible benefits of early retirement for a worker (as indicated by the worker's stressful work, the worker's bad health, and the partner's worry about the worker's health), the stronger his/her partner's preference for the worker's early retirement.*

Self-interest

Narrowly defined, self-interest indicates that people are motivated by material interests (Miller, 1999). This definition is in line with so-called 'thin' rational choice models. However, broader definitions of self-interestedness also ascribe a role to non-exchangeable goods (Hechter and Kanazawa, 1997). From this perspective, seeking positive or avoiding negative emotions are influential motivators (Tamarit and Sanchez, 2016). It is important to note that while self-interest may lead to preferences or behaviour that opposes other people's preferences, this is not necessarily the case. In the case of retirement, a partner may prefer the worker's early retirement due to self-interested reasons, but the worker might develop the same preference based on his/her own considerations.

Self-interested reasons to prefer the worker's early retirement might arise from a partner's preference for his/her own future work status. The partner's future work status determines how large an increase in shared time he/she can expect upon the worker's retirement and thus, how eager the partner is for the worker to retire. Even though new retirees, particularly women, increase their hours of housework (Leopold and Skopek, 2018), couples nonetheless also spend more time together upon the retirement of either member of the couple (Genadek, Flood and Moen, 2019). We expect that partners who prefer to become or stay inactive in the labour force themselves, as opposed to those who prefer to become or stay active, have a stronger preference for the worker

to retire. Moreover, the relationship sphere might give rise to self-interested reasons to prefer the worker's early retirement. Possibilities for joint leisure increase when the worker retires, irrespective of the partner's work status (Genadek, Flood and Moen, 2019). Relationship quality influences how valuable shared time is for the partner. Depending on this quality, a partner will be more or less eager to see the possibilities for joint leisure increase once the worker retires. We thus expect that the higher the quality of the relationship is, the stronger are partners' preferences for the worker's retirement. Another factor that might give rise to self-interested reasons for partners to prefer the worker's early retirement is the partner's health. Long working hours of one member of a couple can be detrimental to the health of the other (Kleiner and Pavalko, 2014) and cohabiting or marital partners are often the primary informal caregivers for one another (Wolff and Kasper, 2006). Partners in bad health might thus expect the worker's retirement to bring about an increase in the time the worker can spend on care tasks. Therefore, we expect that the worse partners' health is, the stronger are their preferences for the worker's early retirement. Given the expectations mentioned above, we propose our *self-interest hypothesis*: *The greater the possible benefits of a worker's early retirement for his/her partner (as indicated by the partner's preference not to work in the future, high relationship quality, and the partner's bad health), the stronger the partner's preference for the worker's early retirement.*

Mechanisms of Partner Influence

A partner can either persuade or pressure workers into early retirement. Both persuasion and pressure are fundamental processes of social influence (Turner, 1991; Harkins and Williams, 2017). Workers are persuaded when they change their preferences for early retirement according to their partner's preference and subsequently act upon these changed preferences. Workers are pressured when they act according to their partner's preference for the worker's retirement, irrespective of the worker's own preference. We elaborate on persuasion and pressure as mechanisms of how a partner's preference influences workers' early retirement below.

Persuasion

Persuasion is a form of informational social influence. Informational influence stems from 'accept[ing] information obtained from another as *evidence* about reality' (Deutsch and Gerard, 1955: p. 629). People generally feel the need to know that the decisions they take are

correct. Information provided by others can help to make these correct decisions. Previous research suggests that a partner is particularly likely to be the source of informational influence in the retirement decision, because older workers discuss retirement primarily with their partner, rather than with their co-workers or supervisor (Henkens and Van Solinge, 2003). According to the classic treatment by Festinger (1953), persuasion leads to public compliance with private acceptance. In the case of retirement, this means that workers adapt their preferences to those of their partner and subsequently behave according to these preferences. Therefore, we propose our *persuasion hypothesis*: *The stronger a partner's preference for the worker's early retirement is, the stronger is the worker's preference for him-/herself. The worker's stronger preference ultimately makes his/her early retirement more likely.*

Pressure

Pressure is a form of normative social influence. Normative influence stems from wanting to 'conform with the positive expectations of another' (Deutsch and Gerard, 1955: p. 629). This need to conform is particularly strong when the influencing agent has the power to offer rewards or threaten with punishments (compliance; Kelman, 2006). Rewards and punishments might be of material or social nature. For example, bestowing approval or showing disapproval can pressure people into acting according to the influencer's wishes. The approval and disapproval of a cohabiting or marital partner are often particularly meaningful. According to Festinger (1953), pressure leads to public compliance without private acceptance. In the case of retirement, this means workers maintain their initial preferences, but retire according to their partner's preference to gain their partner's approval and to avoid arguments about this issue that might threaten the relationship. Therefore, we propose our *pressure hypothesis*: *The stronger a partner's preference for the worker's early retirement is, the more likely is the worker to retire early, irrespective of the worker's own preference.*

Figure 1 provides a summary of our theoretical model and the four main hypotheses. As can be seen, we expect that partners' preferences originate in altruism and self-interest. Persuasion and pressure are expected to be the mechanisms through which a partner's preference affects workers' early retirement behaviour.

Gendered Effects

We study male workers and their female partners as well as female workers and their male partners, because the

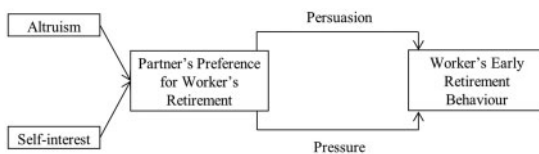


Figure 1. Theoretical model of the nature of partner influence on workers' decision to retire early

origins of a partner's preference for the worker's early retirement and the mechanisms of partner influence may differ by gender. When interpreting gender differences in the results, we need to keep in mind that the female workers studied here are a selective group. They are employed shortly before reaching public pension age, but belong to a cohort of women for whom it is relatively uncommon to participate in the labour market. In the Netherlands, about 36 per cent of the women born between 1950 and 1955 who have a partner participated in the labour force at age 60 (Statistics Netherlands, 2019b).

According to social role theory, gender differences in altruistic and self-interested behaviour arise from an interplay of biology and socialization (Eagly and Wendy, 2012). Women have been found to act more pro-socially and have more concern for the welfare of others than men (Grosch and Rau, 2017). Across cultures and ages, women show higher levels of altruism-related values and lower levels of competition-related values than men (Schwartz and Rubel, 2005; Chapman *et al.*, 2007). Based on social role theory, we propose a *gendered origins hypothesis*: *A female partner's preference for the worker's early retirement will originate from altruism (as indicated by the worker's stressful work, the worker's bad health, and the partner's worry about the worker's health) more strongly and from self-interest (as indicated by the partner's preference not to work in the future, high relationship quality, and the partner's bad health) less strongly than a male partner's preference.*

Gender theory defines gender as 'a lifelong process of situated behavior that both reflects and reproduces a structure of differentiation and control in which men have material and ideological advantages' (Ferree, 1990: p. 870). Accordingly, men have been argued to be more powerful (Ferree, 1990), more influential (Carli, 2001) and less impressionable than women (Orji, Mandryk and Vassileva, 2015). Within couples, we can generally expect agreement to occur because women adopt the views of their male partner rather than vice versa (Zipp, Prohaska and Bemiller, 2004). However, this general expectation might not always hold. Irrespective of gender,

individuals whose sphere of interest is concerned in the decision (Thomson, 1990) or who are perceived as experts in a specific domain (Cialdini and Trost, 1998) are particularly powerful influencers. Given that retirement is at the intersection of the male work domain and the female home domain, either gender may be more influential. Nonetheless, we propose a *gendered influence hypothesis* based on gender theory: *A female partner's preference will influence workers' early retirement less through both persuasion and pressure than a male partner's preference.*

Methods

Data

Between May and November 2015, data were collected for the first wave of the NIDI Pension Panel Study (NPPS). The NPPS is a survey of employees aged 60–65 who were enrolled in three large pension funds in the Netherlands. A vast majority (91 per cent) of Dutch employees are enrolled in occupational pension plans. These plans are usually of the defined benefit type (94 per cent) and offer high pension replacement rates (around 90 per cent; OECD, 2017). The funds that collaborated in the current study together represent about 49 per cent of the wage employed workers in the Netherlands and their members hold diverse occupations in the sectors civil service and education, care and social work, and construction. The sample was stratified by organizational size and sector. In each of the three pension funds, a sample of approximately 50 large, 200 medium-sized, and 300 small organizations was drawn. Within the selected organizations, workers of the birth cohorts from 1950 to 1955 were randomly sampled. For more information on the sample and design of the NPPS, see Henkens *et al.* (2017).

For the current study, the NPPS is particularly valuable, because it provides the opportunity to study a large number of couples, where data were collected from both members of a couple. This kind of multi-actor data is scarce compared with data available for individual-level models. To distinguish between the two members of a couple, we call those who were part of the initial sample workers and those who participated because they were linked to one of the workers through cohabitation or marriage partners. Note, however, that partners might also be active in the labour force. In addition to the survey data, workers' pension funds provided administrative data about early retirement behaviour within the 2 years immediately following data collection, thereby enabling us to study the relation between early

retirement preferences and behaviour in a longitudinal manner.

Altogether 15,470 older workers and, where applicable, their partner received a mailed questionnaire. Respondents could choose whether to return their questionnaire in a stamped envelope or to use a personal code to fill in the questionnaire online. In total, 6,793 workers returned an eligible questionnaire (response rate 44 per cent; 753 online; [Henkens et al., 2017](#)). We excluded 106 respondents for whom we could not measure early retirement preferences before their actual behaviour, because they already received full pension benefits—and thus retired—before the start of data collection in May 2015 ($n = 6,687$). In the Dutch context, the active labour force has traditionally been defined as those workers who are gainfully employed for at least 12 working hours per week ([Statistics Netherlands, 2019c](#)). We adhered to this tradition and exclusively included older workers who met this criterion ($n = 6,501$). To be able to investigate early rather than on-time or late retirement, we further restricted the sample to workers aged 60–63 ($n = 5,161$). In this way, respondents who retired within 2 years after the first wave did so before reaching public pension age, thus retiring early. More than three-quarters of these older workers indicated to have a cohabiting or married partner ($n = 4,069$). Partners returned the questionnaire in 83 per cent of these cases ($n = 3,389$). Of the remaining couples, we only included those in heterosexual relationships in the analytic sample ($n = 3,309$).

Item non-response was low (<3 per cent) and never exceeded 9 per cent for any single item. Under these circumstances, less rigorous missing data procedures than multiple imputations are generally acceptable ([Little et al., 2014](#)). We therefore dealt with missing data by regression imputation with auxiliary variables ([Enders, 2010](#): pp. 46–49).

Measures

Partners' preferences for the worker's early retirement were measured based on the question 'What would be your preference with regard to the work situation of your wife/husband/partner one year from now?'. Partners answered this question on a five-point scale (coded 1 = *strong preference that my partner is not working*, 2 = *weak preference that my partner is not working*, 3 = *no preference*, 4 = *weak preference that my partner is working*, 5 = *strong preference that my partner is working*). The variable was recoded so that higher values indicate a stronger preference for retirement.

Workers' preferences for their own early retirement were measured based on the question 'What would be your preferred work situation one year from now?'. Workers answered this question on a five-point scale (coded 1 = *strong preference for not working*, 2 = *weak preference for not working*, 3 = *no preference*, 4 = *weak preference for working*, 5 = *strong preference for working*). The variable was recoded so that higher values indicate a stronger preference for retirement.

Based on the administrative data provided by the three collaborating pension funds, we were able to identify workers who officially retired within 2 years after the first wave (before 1 May 2017). These workers were classified as retired (1) while all other participants were classified as (still) working (0). Receiving pension benefits generally indicates the end of workers' careers and thus is an accepted definition of retirement (e.g. [Dingemans and Henkens, 2014](#)). The cut-off date was chosen as 1 May in order to observe retirement behaviour within 2 years after the start of the fieldwork for the first wave. Given the age of the sample (60–63) and the statutory retirement age for this cohort in the Netherlands, retirement within 2 years of Wave 1 indicates early retirement.

The coding details, psychometric properties and wording of survey questions and items of all independent variables are presented in the [Supplementary Material](#) available online ([Table S1](#)). [Table 1](#) presents the means and standard deviations of all variables by the worker's gender. Specifically, the stressfulness of the worker's job, the worker's health, and the partner's concern about the worker's health function as indicators of altruism, while relationship quality, the partner's preferences for his/her own work status and the partner's health function as indicators of self-interest. We control for the worker's age, because early retirement is more common the closer workers are to statutory pension age. Within couples, men are generally older than women, so we control for the age difference between the members of a couple so that gender differences are not confounded by this fact. We further control for the worker's gender and occupational status, household wealth and the partner's work status, because all of these have been argued to affect early retirement ([Dahl, Nilsen and Vaage, 2003](#); [Raymo et al., 2011](#); [Fisher, Chaffee and Sonnega, 2016](#); [Topa, Depolo and Alcover, 2018](#)).

Design

To test our hypotheses, we estimated three equations: one for partners' preferences for the worker (EQ I), one

Table 1. Descriptive statistics of dependent and independent variables for male ($n = 2,036$) and female ($n = 1,273$) workers

Dependent and independent variables	Male worker		Female worker	
	M	SD	M	SD
Dependent variables				
Partner's preference for worker	2.84	1.62	2.94	1.51
Worker's preference for self ^a	2.92	1.63	2.63	1.61
Worker's early retirement behaviour	0.15	0.35	0.14	0.34
Altruism				
Worker's stressful work	2.71	0.89	2.70	0.89
Worker's health	3.16	0.86	3.29	0.87
Partner's concern about worker's health ^a	2.09	0.82	1.94	0.77
Self-interest				
Partner's preference own work status	2.59	1.60	3.11	1.66
Relationship quality	4.46	0.60	4.47	0.56
Partner's health	3.30	0.90	3.34	0.92
Shared controls				
Worker's age	61.40	1.09	61.31	1.10
Age difference	2.39	3.38	-2.17	3.87
Female worker (Ref. = Male)	0.00	0.00	1.00	0.00
Worker's occupational status				
Wealth (in 100,000 €)	1.87	1.84	2.02	1.99
Partner works (Ref. = Partner does not work)	0.61	0.49	0.61	0.49
Worker's unique predictors				
Worker's job satisfaction	5.26	1.05	5.38	1.00
Worker's retirement anxiety	2.21	0.79	2.58	0.90

^aPartner's unique predictors.

for workers' preferences for themselves (EQ II), and one for workers' early retirement behaviour (EQ III). Partners' (Y_p) and workers' (Y_w) preferences were expected to be interdependent, so single-equation estimates for EQ I and EQ II would have yielded biased estimates. Therefore, these equations were estimated using a two-stage least squares (2SLS) instrumental variable approach (Theil, 1971). In this procedure, partners' and workers' preferences are two simultaneously determined dependent (endogenous) variables. In the first stage, each dependent variable is regressed on all independent variables in the system (common predictors: X^c , unique predictors for partners' preferences: X_p^u , and unique predictors for workers' preferences: X_w^u). The resulting reduced form coefficients are used as independent variables in the second stage to obtain the 2SLS estimates for each equation in the system. Identification in a two-equation system requires that each equation includes at least one unique predictor. These so-called instruments are assumed to directly affect the preferences of one member of the couple, but to only have an indirect effect on the other member's preferences via the first member's preferences. In this study, partners' preferences were

instrumented using their concern about the worker's health and preferred own future work status. Given that we controlled for the worker's self-reported health, we expected partners' concern about the worker's health to affect the worker's preference only indirectly via the partner's preference. Given that we controlled for partners' current work status, we expected partners' preferences for their own future work status to affect the worker's preference only indirectly via the partner's preference. Further testing showed that these instruments jointly predicted partners' preferences [$F(2, 941) = 255.95, P < 0.001$]. Hansen's (1982) over-identification J-test statistic suggested that the instruments were indeed exogenous [$J(1) = 0.19, P = 0.665$]. Workers' preferences were instrumented using their job satisfaction and retirement anxiety. Given that we controlled for workers' occupational status and stress, we expected workers' individual evaluations to affect the partner's preference only indirectly via the worker's preference. Further testing suggested that these instruments jointly predicted workers' preferences [$F(2, 940) = 188.25, P < 0.001$]. Hansen's (1982) over-identification J-test statistic suggested that the instruments were indeed

exogenous [$J(1) = 2.19, P = 0.139$]. Thus, we simultaneously estimated:

$$Y_{pi} = a_p \hat{Y}_{wi} + b_p \sum X_{pi}^u + c_p \sum X_i^c + \epsilon_{pi} \quad \text{EQ I}$$

$$Y_{wi} = a_w \hat{Y}_{pi} + b_w \sum X_{wi}^u + c_w \sum X_i^c + \epsilon_{wi}, \quad \text{EQ II}$$

where \hat{Y}_p and \hat{Y}_w are the predicted values of partners' and workers' preferences, X^u denotes sets of instruments for partners' and workers' preferences while X^c denotes a set of common predictors. Individual couples are indicated by i .

Workers' early retirement behaviour was estimated in a logistic regression as follows:

$$Y_{bi} = a_b Y_{pi} + b_b Y_{wi} + c_b \sum X_i^c + \epsilon_{bi}, \quad \text{EQ III}$$

where Y_p and Y_w are partners' and workers' observed preferences, X^c denotes the same set of common predictors used to estimate partners' and workers' preferences, and individual couples are indicated by i . In all analyses, standard errors were clustered within organizations to allow for common effects of the organizational context on early retirement preferences and behaviour.

Our hypotheses concerning the *origins* of partners' preferences were tested based on EQ I, where the effect of altruism and self-interest are represented by different sets of unique and common predictors. Specifically, to assess the role of altruism, we investigated the effects of the worker's level of stress at work, the worker's health, and the partner's concern about the worker's health. To assess the role of self-interest, we investigated the effects of the partner's preference for own future work status, relationship quality, and the partner's own health.

Concerning the *mechanisms* of spousal influence, we measured persuasion as the product of a_w (EQ II) and b_b (EQ III), i.e. the effect of a partner's preference on the worker's preference and the effect of the worker's preference on the worker's behaviour. We tested the mediation effect by applying the KHB method. Conceptually, this means that a partner's preference affects workers' preferences and that workers act upon these changed preferences. Pressure is represented by the coefficient a_b , which is the effect of a partner's preference on workers' behaviour. This effect means that workers' behaviour is influenced by their partner's preference after having taken the worker's preference into account.

To gain insight into gender differences in the origins and mechanisms of partner influence, we estimated all equations separately for male and female workers. We subsequently tested whether the coefficients in the two samples significantly differed from one another.

Results

Descriptive Findings

In order to better understand the results with regards to the origins and mechanisms of partner influence, we first present descriptive statistics of the dependent variables. As can be seen in Table 2, most partners had strong preferences for the worker to either continue working (30 per cent) or retire early (24 per cent). Similarly to partners, the majority of workers either strongly preferred to continue working (35 per cent) or to retire early (25 per cent). Fewer workers had more moderate preferences.

Only a small share of older workers retired early in the 2 years of this study (14 per cent; $n = 469$; by gender see worker's early retirement behaviour in Table 1). To gain better insights of the share of workers who will have retired early when reaching age 65, we present life table estimates in Figure 2. We assume that all workers in our sample were employed at age 60. The estimates were based on monthly information on age and retirement timing. By age 61, less than 1 per cent had exited the labour force. In total, 4 per cent had retired before turning 62 and 13 per cent before turning 63. When approaching the statutory retirement age, early labour market exit became more common. Almost 30 per cent of those employed at age 60 had retired before age 64 and about half had retired before turning 65. Thus, a noteworthy group of older workers retired early, but generally only a year or two before reaching public pension age.

Origins of Partners' Preferences

Table 3 shows the result of the 2SLS analysis of partners' preferences for the worker's early retirement. Partners' preferences were partially endogenous. Partners' preferences for the worker's retirement were significantly affected by the preference the worker had for himself/herself. In line with our altruism and self-interest hypotheses, we also found evidence for exogenous preferences.

Concerning our *altruism hypothesis*, the stressfulness of the worker's work and partners' concern about the worker's health significantly affected partners' preferences. As expected, the more stressful the worker's work was and the more worried partners' were about the worker's health, the stronger were partners' preferences for the worker's early retirement, even when controlling for the worker's own preferences. We did not find significant effects of the worker's actual health on partners' preferences.

The *self-interest hypothesis* also received support: we found a significant effect of partners' preference for their

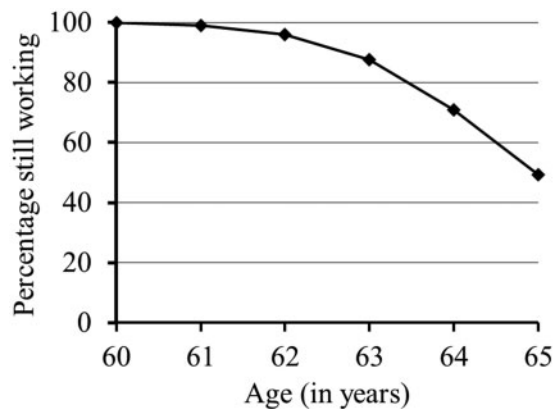


Figure 2. Percentage still working by age for workers who were employed at age 60: life table estimates

own future work status on partners' preferences. As expected, the higher partners' own preference to retire, the stronger were their preferences for the worker's early retirement, even when controlling for the worker's own preference. We did not find significant effects of relationship quality and partners' own health on their preferences.

With regards to the control variables, male partners were significantly more in favour of the worker's early retirement. The higher the occupational status of the worker, the weaker his/her partner's preference for the worker's early retirement. The worker's age, the age difference within the couple, household wealth, and the partner's work status did not significantly affect partners' preferences.

Mechanisms of Partner Influence

Persuasion

The first column of Table 4 shows the results of the 2SLS analysis of workers' preferences for their own early retirement. In line with our *persuasion hypothesis*, the stronger a partner preferred the worker's early retirement, the stronger were also the worker's preferences. To examine the full process of persuasion, we need to look at column two of Table 4, which shows the results of the logistic regression of workers' early retirement behaviour. Here, we see that workers' preferences for themselves significantly affected their subsequent retirement behaviour. More importantly, based on the KHB method, the indirect effect of a partner's preference on the worker's behaviour via the worker's preference was statistically significant ($b = 0.29$, $P < 0.001$) and explained 50 per cent of the total effect. Overall, these

results strongly support our persuasion hypothesis. Thus, partners persuaded the worker to adapt his/her preference for early retirement to the partner's preference and to subsequently act upon these changed preferences.

For the effects of all control variables on workers' preferences for their own early retirement, see the first column of Table 4. A higher age of the worker, a working partner, and stressfulness of the worker's work were associated with stronger preferences for early retirement among workers. Female workers, workers with higher occupational status, and workers in better health had weaker preferences for early retirement. The age difference within the couple, household wealth, the partner's health, and relationship quality did not significantly affect workers' preferences.

Pressure

To test our *pressure hypothesis*, we again have to consult the second column of Table 4. In line with this hypothesis, the stronger partners' preferences for the worker's early retirement were the more likely the worker was to retire early. This effect is controlled for the effect of the worker's own preferences. Thus, even workers who did not prefer early retirement were more likely to retire early nonetheless, if their partner preferred them to do so. Due to the interdependence between both partners' preferences, we would have overestimated the effect of a partner's preference on workers' behaviour if we had not included workers' preferences in the model ($b = 0.53$, $P < 0.001$; results not shown).

The second column of Table 4 also shows the effects of the control variables on workers' early retirement behaviour. Higher age of the worker, higher household wealth, and better health of the worker and partner made early retirement more likely. Higher occupational status of the worker made early retirement less likely. The age difference within the couple, the worker's gender, the partner's work status, relationship quality and the stressfulness of the worker's job were not associated with early retirement behaviour. Note, that all effects are adjusted for the worker's preference and thus cannot be compared with those found in other studies.

Gendered Effects

To test in what ways origins and mechanisms of partner influence differ by gender of the worker, we estimated separate models for men and women. Note that when we analyse women as workers below, the focus is on older women who work for pay at least 12 hours a week. Given

Table 2. Distribution of partners' and workers' preferences (in per cent)

Answer possibilities	Partner's preference for worker			Worker's preference for self		
	Total	Male worker	Female worker	Total	Male worker	Female worker
Strong pref. working	30	33	26	35	32	39
Weak pref. working	16	15	17	15	14	17
No pref.	14	13	17	9	10	8
Weak pref. not working	15	14	18	17	17	15
Strong pref. not working	24	26	22	24	27	21
Total	100	100	100	100	100	100
Observations	3,309	2,036	1,273	3,309	2,036	1,273

Table 3. Origins of partners' preferences for the worker's early retirement ($n = 3,309$)

Independent variables	Partner's preference for worker	
	Coef.	P-value
Altruism		
Worker's stressful work	0.07**	(0.009)
Worker's health	0.03	(0.349)
Partner's concerns about worker's health	0.12**	(0.000)
Self-interest		
Partner's preference own work status	0.29**	(0.000)
Relationship quality	0.07	(0.101)
Partner's health	-0.02	(0.427)
Controls		
Worker's preference for self	0.59**	(0.000)
Worker age	0.05	(0.061)
Age difference	0.01	(0.410)
Female worker (Ref. = Male worker)	0.19**	(0.000)
Occupational status	-0.07**	(0.004)
Wealth (in 100,000 €)	0.01	(0.334)
Partner works (Ref. = Partner does not work)	0.01	(0.892)
Constant	-3.39*	(0.028)

Notes: Clustered standard errors within organization. Two-stage least squares regression results.

* $P < 0.05$, ** $P < 0.01$.

that female labour market participation was relatively uncommon in this cohort (Statistics Netherlands, 2019b), the group of female older workers is more select than the women who are in the partner sample.

Origins by gender

In our *gendered origins hypothesis*, we expected female partners' preferences to originate from altruism more

strongly and from self-interest less strongly than male partners' preferences. When turning to *altruism*, the results presented in Table 5 suggest that indicators of altruism significantly affected the preferences of female but not male partners. Specifically, higher levels of stress at the worker's work and the partner's concern about the worker's health were significantly associated with partners' stronger preferences for the worker's early retirement among female, but not among male partners. The coefficients for stressful work ($z = 0.79$, $P = 0.431$) and the worker's health ($z = 1.30$, $P = 0.193$) did not significantly differ between male and female partners, but the effect of health concerns was significantly stronger for female than for male partners ($z = 2.24$, $P = 0.025$).

The results on *self-interest* in Table 5 suggest that the preferences of male and female partners originated from self-interest to a comparable degree. Male and female partners both preferred the worker to retire early more strongly if they preferred to be out of the labour force themselves in the near future. When comparing the coefficients between samples, we found no significant differences in the effect of the partner's preference for his/her own future work status ($z = 0.54$, $P = 0.592$), relationship quality ($z = 0.12$, $P = 0.904$), and the partner's health ($z = 0.79$, $P = 0.428$) by gender.

Influence by gender

Male and female workers were both *persuaded* into early retirement by their partner to a comparable degree. In both samples, workers' early retirement preferences were strongly affected by their partner's preference and workers' preferences, in turn, strongly affected workers' behaviour (see Table 6). Moreover, the indirect effect of a partner's preference on workers' behaviour via the worker's own preference was significant for men ($b = 0.26$, $P < 0.001$) as well as women ($b = 0.31$, $P < 0.001$) and did not differ significantly between the two

Table 4. Mechanisms of partner influence on the worker's early retirement ($n = 3,309$)

Independent variables	Worker's preference for self		Worker's early retirement behaviour	
	Coef.	P-value	Coef.	P-value
Persuasion				
Partner's preference for worker	0.46**	(0.000)		
Worker's preference for self			0.60**	(0.000)
Pressure				
Partner's preference for worker			0.28**	(0.000)
Controls				
Worker age	0.22**	(0.000)	0.42**	(0.000)
Age difference	0.00	(0.485)	-0.03	(0.090)
Female worker (Ref. = Male)	-0.13*	(0.019)	0.02	(0.891)
Occupational status	-0.10**	(0.000)	-0.20**	(0.001)
Wealth (in 100,000 €)	0.02	(0.087)	0.09**	(0.001)
Partner works (Ref. = Partner does not work)	0.12*	(0.023)	-0.04	(0.709)
Worker's health	-0.13**	(0.000)	0.14*	(0.041)
Partner's health	0.05	(0.080)	0.16**	(0.006)
Relationship quality	0.07	(0.099)	-0.00	(0.980)
Worker's stressful work	0.09**	(0.003)	0.06	(0.381)
Worker's unique predictors				
Worker's job satisfaction	-0.27**	(0.000)		
Worker's retirement anxiety	-0.23**	(0.000)		
Constant	-10.26**	(0.000)	-32.28**	(0.000)

Notes: Clustered standard errors within organization. Effects on workers' preferences (2SLS) and behaviour (logit).

* $P < 0.05$, ** $P < 0.01$.

samples, $z = -0.39$, $P = 0.695$. Partner *pressure* affected male and female workers' early retirement to a comparable degree when controlling for workers' preferences (see Table 6). There also was no significant difference in the strength of the coefficients by gender, $z = -0.58$, $P = 0.428$. Overall, these results suggest that male and female partners influence the worker's early retirement equally strongly and that there is no difference in the mechanisms through which they exert this influence. So, there appears to be no power difference by gender.

Discussion

In the literature on labour force participation it is widely acknowledged that a partner plays a role in decisions about work and career (Loretto and Vickerstaff, 2013; Stertz, Grether and Wiese, 2017). Traditionally, the effect of a partner is studied rather indirectly by taking partner characteristics into account in otherwise individual-level models (e.g. Dahl, Nilsen and Vaage, 2003). However, researchers recognize that a partner's perception is important to the couple's decision process and a few studies actually collect data from both

members of the couple (e.g. Abraham, Auspurg and Hinz, 2010). We extend the literature even further by investigating the nature of social influence in couples. Specifically, we focus on the origins and mechanisms of partner influence in the case of workers' early retirement decision. Early retirement is a highly relevant, but relatively understudied example of partner influences.

Substantively, our study not only contributes to the understanding of retirement decisions in a couple context, but also sheds light on how couples arrive at joint decisions more generally. Regarding the origins of partner influences, this study provides evidence that a partner's preference is partly endogenous, as partners adapt their own preferences to those workers have for themselves. Nonetheless, partners also have independent reasons to prefer a worker's exit from the labour force. These preferences derive from altruistic motives and the wish to promote the worker's well-being, as well as from self-interested motives which are in line with the idea that couples often prefer to be jointly inactive in the labour market (Syse *et al.*, 2014; Eismann, Henkens and Kalmijn, 2017). Overall, partners' exogenous preferences for a worker's labour force participation seem to be based slightly more in self-interest than in altruism.

Table 5. Origins of partners' preferences for the worker's early retirement for male ($n=2,036$) and female ($n=1,273$) workers

Independent variables	Partner's preference for worker			
	Male worker		Female worker	
	Coef.	P-value	Coef.	P-value
Altruism				
Worker's stressful work	0.09*	(0.020)	0.04	(0.285)
Worker's health	0.06	(0.124)	-0.02	(0.690)
Partner's concerns about worker's health	0.17**	(0.000)	0.03	(0.577)
Self-interest				
Partner's preference own work status	0.27**	(0.000)	0.30**	(0.000)
Relationship quality	0.07	(0.211)	0.06	(0.290)
Partner's health	-0.00	(0.977)	-0.04	(0.298)
Controls				
Worker's preference for self	0.59**	(0.000)	0.58**	(0.000)
Worker age	0.08*	(0.029)	-0.00	(0.965)
Age difference	0.01	(0.468)	0.00	(0.771)
Occupational status	-0.05	(0.154)	-0.14**	(0.001)
Wealth (in 100,000 €)	0.01	(0.483)	0.01	(0.638)
Partner works (Ref. = Partner does not work)	-0.04	(0.606)	0.07	(0.391)
Constant	-5.54*	(0.011)	0.31	(0.885)

Notes: Clustered standard errors within organization. Two-stage least squares regression results.

* $P < 0.05$, ** $P < 0.01$.

Perhaps altruism has a weaker impact on partners' preferences when the interdependencies between the partner's and the worker's preferences are taken into account: A worker's preference and his/her partner's altruism are likely to share their roots, whereas a partner's self-interested preference derives from other factors.

Regarding the mechanisms of spousal influence, we find evidence of persuasion within couples. A partner's preference for the worker indirectly affects the worker's behaviour via his/her own preference. However, the current study suggests that partners also directly influence the worker's early retirement behaviour even when their persuasive attempts fail. In other words, a partner can pressure workers to retire early even if workers do not prefer this for themselves. Overall, partner influences on workers' early retirement run via both persuasion and pressure.

Social influence in couples is ubiquitous. Decisions in various life spheres, such as work, fertility, housing, and leisure activities, are likely to be influenced by one's partner. Nonetheless, the retirement decision is often studied as an individual process. Our study shows that workers' preferences have a stronger impact on their partner's preference than vice versa. This is in line with previous findings (Henkens, 1999) and suggests that

when a decision concerns the behaviour of one member of the couple (the worker), this member generally also has more say in it. However, we also find evidence that partners do not simply adapt their preferences to those the worker has for him-/herself, but also base them on altruism and self-interest. Moreover, partners have a strong influence on the worker's behaviour via both persuasion and pressure.

We find some support for gender differences in the origins though not in the mechanisms of partner influence on workers' labour force participation. Regarding the origins of partners' preferences, we provide limited support that altruism plays a more important role in forming female as compared with male partners' preferences. This is in line with research on partner influences on health behaviour (Waite and Gallagher, 2001). We do not find gender differences with regards to origins in self-interest. The question of whether gender differences in the origins of partners' preferences are due to biology or gendered socialization might be addressed in future research. Based on gender theory, we expected female workers to be affected by their male partner more strongly than vice versa. Our findings do not support this expectation. Retirement is at the intersection of the male work domain and the female home domain.

Table 6. Mechanisms of partner influence on the worker's early retirement for male ($n = 2,036$) and female ($n = 1,273$) workers

Independent variables	Workers' preference for self				Workers' early retirement behaviour			
	Male worker		Female worker		Male worker		Female worker	
	Coef.	P-value	Coef.	P-value	Coef.	P-value	Coef.	P-value
Persuasion								
Partner's preference for worker	0.41**	(0.000)	0.52**	(0.000)				
Worker's preference for self					0.56**	(0.000)	0.63**	(0.000)
Pressure								
Partner's preference for worker					0.28**	(0.000)	0.33**	(0.000)
Controls								
Worker age	0.23**	(0.000)	0.21**	(0.000)	0.41**	(0.000)	0.47**	(0.000)
Age difference	0.00	(0.782)	0.01	(0.309)	-0.04	(0.067)	-0.01	(0.674)
Occupational status	-0.17**	(0.000)	0.05	(0.251)	-0.31**	(0.000)	0.06	(0.614)
Wealth (in 100,000 €)	0.03	(0.083)	0.01	(0.516)	0.14**	(0.000)	0.04	(0.405)
Partner works (Ref. = Partner does not work)	0.16*	(0.019)	0.03	(0.763)	-0.05	(0.731)	-0.05	(0.816)
Worker's health	-0.12**	(0.002)	-0.13**	(0.005)	0.08	(0.380)	0.25*	(0.022)
Partner's health	0.00	(0.887)	0.10*	(0.022)	0.17*	(0.029)	0.13	(0.143)
Relationship quality	0.08	(0.135)	0.06	(0.407)	-0.02	(0.887)	0.02	(0.903)
Worker's stressful work	0.10*	(0.016)	0.09	(0.058)	-0.08	(0.350)	0.30*	(0.010)
Worker's unique predictors								
Worker's job satisfaction	-0.27**	(0.000)	-0.24**	(0.000)				
Worker's retirement anxiety	-0.25**	(0.000)	-0.22**	(0.000)				
Constant	-10.99**	(0.000)	-10.14**	(0.000)	-30.42**	(0.000)	-36.58**	(0.000)

Notes: Clustered standard errors within organization. Effects on workers' preferences (2SLS) and behaviour (logit).

* $P < 0.05$, ** $P < 0.01$.

In contrast to traditional gender theory, it is plausible that women have considerable power in the domestic sphere (Wiesmann *et al.*, 2008) and that they are less susceptible to social influence when the issue falls within their own area of expertise (Zipp *et al.*, 2004). When interpreting the results with regards to gender, we need to keep in mind that our sample of female workers is selective. We only studied women who were employed for at least 12 hours a week at age 60. Many women who are more susceptible to their partner's influence might have already left the labour market by that age.

Our methodological approach relies on multi-actor and longitudinal data. The availability of multi-actor data allows us to investigate the origins of partners' preferences. It is crucial to collect data from both members of the couple to estimate the extent to which workers and their partner influence each other's preferences for the worker's labour force participation. The longitudinal aspect of the data allows us to connect the partner's and the worker's preference with the worker's subsequent behaviour. This adds to a field that generally investigates either preferences or behaviour and that

exclusively focuses on workers' preferences. Thus, the design of our study is uniquely suited to investigate the origins and mechanisms of social influence in couples. This is a noteworthy extension of designs that have previously been used to investigate spousal influence. Generally, research in such diverse fields as work, fertility, housing, and leisure activities has either investigated the origins (e.g. Matias and Fontaine, 2017) or the mechanisms of partner influence (e.g. Bronner and De Hoog, 2008).

Some limitations of this study should be kept in mind when drawing conclusions from our results. Unfortunately, we only have longitudinal data on behaviour, not on preferences. We aim to overcome this limitation by using an instrumental variable approach. Although the availability of plausible instruments allows us to estimate social influence in couples despite the lack of longitudinal data on preferences, the dynamics of the mutual influence in couples cannot be uncovered using this method. Limits remain with regards to the conclusions we can draw about changes in preferences over time. This also impairs our differentiation between

persuasion and pressure. Within the 2 years that maximally lay between the first wave of data collection and workers' early retirement, partners might have succeeded in persuading the worker to share his/her partner's preferences. Thus, we might overestimate pressure at the expense of persuasion. This means that we need to be cautious about the proportion of spousal influence we attribute to persuasion and pressure, but we are confident that both mechanisms play a role. Moreover, our results clearly suggest that the pre-retirement process in couples is characterized by a process of strong mutual influence.

Another limitation is that we infer persuasion and pressure from the effects of partner preferences on workers' preferences and behaviour. Although this is an important step to show the mechanisms through which partner preferences impact older workers, an interesting follow-up question is whether partners and workers actually experience what we label persuasion and pressure as such. Naturally, partners' and workers' perceptions of spousal influence are subject to biases, but in combination with the statistical evidence for the existence of persuasion and pressure as influencing mechanisms that the current study presents, perceptions can provide information of how couples experience this influence. Moreover, future studies might investigate in which way exactly partners persuade or pressure workers. These might be either subtle or blatant influential attempts. Earlier studies in the health domain have shown that spousal pressure to live a healthier life often produces a less healthy lifestyle (Martire *et al.*, 2013). Thus, some partners who actively aim to influence workers, might be quite ineffective, while others make limited, but compelling attempts at influencing workers. The current study shows to which degree spousal persuasion and pressure are successful at influencing older workers, but this does not allow for strong conclusions about the extent to which partners try to influence workers. However, previous research has shown that older workers often discuss retirement with their partner (Henkens and Van Solinge, 2003). This suggests that if they are motivated, partners can and will influence older workers' retirement process.

Next to theoretical implications, some practical implications for the retirement process of couples follow from our findings. We can conclude that even though retirement strictly concerns the behaviour of an individual, it is clearly not a purely individual decision. Rather, it is a joint decision-making process of older couples. Each member of the couple enters this process with his or her own ideas. When either member approaches public

pension age, this initiates discussion and mutual influence within the couple. The process of mutual influence can have quite personal implications for older couples. The negotiation about each partner's retirement timing is likely to be challenging. Both members of the couple might have conflicting interests and the retirement of either partner can bring about changes in well-established roles and the distribution of power. The way couples deal with these challenges might affect how satisfied they are in the transition to old age. If couples cannot find common ground when discussing retirement this might strain the relationship and might increase the risk of divorce, which has become more common among older adults in the Netherlands, in the past decades (Statistics Netherlands, 2018b). It is clear that the decision to retire is not simply a decision whether or not to stop working, but that it will have broader effects on a couple's shared life.

In the future, the retirement decision-making process in couples is likely to become increasingly complex due to two developments. First, the variety of relationships at older age increases. There are trends towards more dual-career couples (Statistics Netherlands, 2019b) and more higher order unions (Pasteels and Mortelmans, 2017), which are often characterized by larger age differences between partners and 'non-standard' forms (e.g. unmarried cohabitation or living apart together; De Jong Gierveld, 2004). All in all, there is increasing complexity of coupled life (Cherlin, 2010). This complexity will raise additional questions with regards to couples' retirement decision. For example, dual-career couples have to discuss both partners' retirement, each of which is dependent of the preferences and behaviour of the other (Eismann, Henkens and Kalmijn, 2017). Second, the complexity of retirement pathways grows. Around the world, governments are raising public pension ages in order to keep their pension systems sustainable (OECD, 2017). This increases the economic insecurity in old age. Moreover, for a growing number of workers the transition from full-time work to full retirement is blurred (Maestas, 2010; Shultz and Wang, 2011; Dingemans and Henkens, forthcoming). The increasing complexity of both coupled life and the retirement process prompts questions about how members of a couple influence each other in the transition towards post-retirement life. Distinguishing between altruism and self-interest as origins and persuasion and pressure as mechanisms of a partner's influence, as in this study, are increasingly relevant to understand how older couples transition into old age in the future.

Supplementary Data

Supplementary data are available at ESR online.

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