**Couples’ job insecurity and relationship satisfaction in the Netherlands.**

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Abstract

**Objective**: The goal of this study is to estimate the effect of one’s own and one’s partner’s job insecurity on relationship satisfaction, with attention to gender and educational differences in these effects. Second, we test whether the effects of individual job insecurity on individual relationship satisfaction depends on partner job insecurity.

**Background:**

Research has established that job insecurity is negatively associated with relationship quality at the individual level but little is known about how partner’s job insecurity shapes individual perceptions of relationship quality. Though one’s partner’s job insecurity is expected to be negatively associated with relationship quality on average, it may be protective in cases in which individual job insecurity is also high. We expand spillover-crossover and family stress models to develop and test hypotheses about the independent and interactive effects of individual and partner job insecurity on relationship quality and further consider potential gender and educational differences in the independent effects of individual and partner job insecurity on individual perceptions of relationship quality.

**Method:** Dutch dyadic longitudinal panel data was used (LISS-panel 2008-2015), comprising of 11,536 observations of 3,668 individuals. Random and fixed effects models were estimated to study differences between individuals (random effects) and changes over time within individuals (fixed effects).

**Results:** Men and women were less satisfied with their relationship when they felt more job insecurity, and women were less satisfied when their male partner experienced job insecurity. Men’s relationship satisfaction was less strongly related to job insecurity when his partner experienced job insecurity as well. Relationship satisfaction of higher educated men suffered less from job insecurity than that of lower educated men.

**Conclusion:** Job insecurity was negatively associated with relationship satisfaction, and this association was dependent on gender and, among men, on partner’s job insecurity and educational attainment. A dyadic and moderation perspective is important for understanding the relationship between employment and relationship quality.

**Key words:** relationships; couples; inequalities; job security; longitudinal research; marital quality

Introduction and Research Question

Job insecurity is one of the main challenges to contemporary families throughout Western countries (Blossfeld, Buchholz, Mills, & Kurz, 2005). Many people are concerned about the continuation of their job in the near future (Statistics Netherlands, 2017) and this affects the quality of their relationships (Cheng, Mauno, & Lee, 2014b; Hughes & Galinsky, 1994; Mauno & Kinnunen, 1999). Prior literature suggests two explanations for the negative impact of job insecurity on relationship satisfaction: psychological responses (based on the spillover-crossover model (Bakker & Demerouti, 2013; Bolger, DeLongis, Kessler, & Wethington, 1989) and economic problems (based on the family stress model (Conger et al, 2010)). We expand these models to better specify in which situations these mechanisms will be more pronounced and the negative consequences of job insecurity more severe, with a focus on three potential moderators of the effect of individual job insecurity on relationship satisfaction: partner job security, gender, and socioeconomic status.

Although the quality of a partner relationship is partly a product of the dyadic relationship environment (Johnson & Booth, 1998), little attention has been paid to the dyadic influence of employment characteristics on relationship quality. Therefore, we ask: Are people less satisfied with their relationship when their partner is insecure about his/her job and is job insecurity more or less negative for relationship satisfaction when a partner is employed and has a secure job?

 A dyadic perspective reflects the notion that partners share a household and make decisions based on their pooled income and future prospects. Household decisions are thus based on the employment of both partners, including their job insecurity. Despite the possible importance of a partner’s job insecurity for couples (Mauno, Cheng, & Lim, 2017), few studies have investigated its influence for relationship quality. The single – to our knowledge – study on this influence (Mauno & Kinnunen, 1999) found no partner effect of job insecurity, but their study relied on cross-sectional data with a small sample size and sample selection. An exclusive focus on individual job insecurity that ignores a dyadic perspective may underestimate the effect of job insecurity on relationship quality. In addition to focusing on the independent effects of both partners’ job insecurity, we also test whether the effect of each partner’s job insecurity on relationship satisfaction depends on the job insecurity of the other partner. In doing so, we expand the spillover-crossover perspective’s (Bakker & Demerouti, 2013; Bolger et al, 1989) focus on the additive impact of individuals and partner’s employment on family life.

 In addition to estimating the interactive effect of individual and partner job insecurity on relationship satisfaction, we also consider whether the effects of individual and partner job insecurity vary by gender and socioeconomic status of the partner. The assessment of gender (a)symmetry in the consequences of job insecurity can shed light on whether traditional gender role patterns in contemporary Dutch society continue to shape family life outcomes. Investigation of moderating effects of partner’s employment and education yields important insights in potential accumulation of disadvantages in partner relationships caused by job insecurity. If a favorable job position of the partner can protect the quality of the relationship against individual’s job insecurity, single-earner families and couples where both partners experience job insecurity could be especially affected, raising the inequality in relationship quality between couples. Similarly, if job insecurity is more detrimental to the relationship quality of people with a lower education, for instance due to lower re-employment chances or lower income, that group would be doubly affected by job insecurity, as lower educated are also more prone to experience job insecurity in the first place (Lübke & Erlinghagen, 2014).

By studying whether and how relationship consequences of job insecurity are conditional on the job position of a partner, gender, and education, we contribute to the literature in several ways. We make theoretical progress, first by taking the dyadic perspective on employment and relationship quality one step further, and second by deepening the understanding of the theoretical mechanisms linking job insecurity and relationship quality by specifying to which groups the mechanisms more strongly apply. Moreover, we provide new knowledge on a potential accumulation of disadvantages within certain couples. Finally, our use of high quality Dutch dyadic longitudinal data and both random effects and fixed models provides a more stringent test of the relationship consequences of job insecurity in various contexts compared to prior studies that have relied largely on cross-sectional or non-dyadic data.

In sum, this study addresses the following research questions: *To what extent are people less satisfied with their partner relationship when they and/or their partner have less secure jobs, and to what extent does it differ by partner’s job insecurity, gender, and educational attainment?* We investigate these issues using Dutch dyadic longitudinal data (Dutch Longitudinal Internet Studies for the Social sciences (LISS)) to investigate differences between individuals (random effects) as well as changes over time within individuals (fixed effects). Whereas examination of within-individual change can be interpreted as a stricter test of our expectations because stable unobserved characteristics are accounted for, the downside of only investigating changes is potentially overlooking the impact of initial, long-term (dis)advantages. Between-individual differences do investigate stable characteristics, but might be more biased than within-individual investigations due to unobserved confounding aspects. Using both analytical strategies therefore offers an elaborate more comprehensive and nuanced test of our hypotheses.

*Job insecurity in the Netherlands*

Similar to many other Europeans, many Dutch employees feel insecure about job continuation (Balz, 2017). Subjective job insecurity almost doubled in just five years’ time during the recent recession in the Netherlands, from 18 percent in 2008 to 34 percent in 2013 (Statistics Netherlands, 2017). It dropped after the financial crisis, but not to the pre-crisis level: 27 percent of Dutch employees still felt insecure about their job in 2015. Job insecurity is partly caused by temporary employment (Balz, 2017; Lübke & Erlinghagen, 2014), which is relatively common in the Netherlands. Compared to the OECD average of 11.3, 20.2 percent of Dutch employees had temporary positions in 2015 (OECD, 2019b). Temporary employees typically enjoy lower levels of employment protection than their counterparts with a permanent contract, and many countries face such segmented labor markets (Eichhorst, Marx, & Wehner, 2017).

Traditional gender roles are reflected in Dutch labor market behavior. As is the case in many countries, in general men continue to contribute most to the household’s income (Nieuwenhuis, van der Kolk, & Need 2017). Though many Dutch women are employed (69.2 percent of the working-age population in 2015 compared to the OECD average of 58.5 percent), they are substantially more likely than men to have part-time employment (60.7 and 19.5 percent respectively among the employed in 2015) (OECD, 2019a).

Similar to other countries, education is an important predictor of labor market opportunities, family behavior, and attitudes in the Netherlands. For instance, lower educated in the Netherlands are less likely to be employed than the higher educated, 60.0 and 88.2 respectively in 2015, and this difference is around the OECD average (OECD 2019c). Furthermore, the lower educated have a higher chance of divorce among more recent cohorts, while this was previously reversed (de Graaf & Kalmijn, 2006) and the higher educated hold more egalitarian gender role attitudes (Thijs, te Grotenhuis, & Scheepers, 2017).

Theoretical framework and hypotheses.

Job insecurity influences the quality of partner relationships through psychological responses, such as empathic processes and depletion of emotional resources as theorized by the spillover-crossover model (Bakker & Demerouti, 2013; Bolger et al, 1989), but also through a potential loss of economic resources, as specified by the family stress model (Conger, Conger, & Martin, 2010). Our hypotheses regarding conditional effects by partner job insecurity, gender, and education build on the spillover-crossover model and the family stress model to specify how and why different mechanisms might be more relevant for some groups or situations. We further draw on research and theory on gender ideology and relative income contribution (Johnston and Swanson, 2006; Townsend, 2002) to predict gender differences in the effect of own and partner job insecurity on relationship satisfaction. Theoretical insights on on the importance of partner resources and the companionate model of marriage (Oppenheimer, 1997; Rogers, 2004) underlie our hypothesis about moderating role of partner job insecurity and an employability and financial resources perspective (Green, 2011; Silla, de Cuyper, Gracia, Peiró, & De Witte, 2009) inform our hypothesis of an educational gradient in the impact of job insecurity on relationship satisfaction.

*Relationship satisfaction and job insecurity*

The spillover-crossover model posits that work experiences spill over to the home domain (Bakker & Demerouti, 2013; Bolger et al, 1989). High (emotional) demands at work deplete energy and emotional resources (Mauno et al., 2017) which, in turn, contribute to exhaustion, inhibit concentration, and induce psychosomatic problems (Bakker & Demerouti, 2013). Other consequences of resource depletion include problems combining work and family life, lowered psychological availability and support, less energy and vigor, and greater levels of irritability (Cheng et al., 2014a; Danner-Vlaardingerbroek, Kluwer, Van Steenbergen, & Van Der Lippe, 2013; Jiang & Lavaysse, 2018; Larson, Wilson, & Beley, 1994; Mantler et al., 2005; Mauno & Kinnunen, 1999; Repetti & Wang, 2017). According to the spillover-crossover model, this affects both partners’ relationship satisfaction. Additionally, a partner’s job conditions may influence one’s emotional state through empathic processes: a person feels distressed because his/her partner feels distressed (Westman, 2016). Thus, negative job factors, such as job insecurity, could lead to a change in relationship quality for both partners (Bakker & Demerouti, 2013; Mauno et al., 2017).

A second mechanism focusses on expected economic hardship and can be derived from the family stress model (Conger et al., 2010) as expanded by Blom et al. (2019). The family stress model posits that economic hardship is translated into subjective economic pressure, which drives emotional and behavioral responses, including anxiety and anger, which are detrimental for the partner relationship (Conger et al., 2010). However, job insecurity is likely more strongly related to *expected* than current economic problems. Blom et al. (2019) argued that both current and expected financial hardship reduce relationship satisfaction of couples. Prospects of economic problems hamper couples in making plans for the future (Blossfeld et al., 2005). For instance, they may delay fertility decisions or cannot take next steps in their housing career (Blossfeld et al., 2005). Based on the spillover-crossover and extended family stress perspectives, we hypothesize: (*Hypothesis 1*) One’s own job insecurity is negatively associated with one’s own satisfaction with the partner relationship. (*Hypothesis 2*) Partner’s job insecurity is negatively associated with one’s own satisfaction with the partner relationship.

*Gender differences: Gender role attitudes and income contribution*

The extent to which job insecurity affects the partner relationship may depend on whether it is the man or the woman who experiences job insecurity. The provider role has traditionally been strongly associated with men, whereas women were more responsible for care and domestic work (Johnston & Swanson, 2006; Thijs et al., 2017; Townsend, 2002). Job insecurity of the male partner therefore threatens this gendered ‘ideal’ more strongly than job insecurity of the female partner. Men’s inability to provide secure income could diminish men’s sense of self-worth but, as women’s expectations also may not have been met, also reduce her esteem for her partner. In support of this idea, De Witte (1999) showed that job insecurity led to lower mental wellbeing among men, but not among women. However, no gender differences were found in more recent studies by Cheng and Chan, (2008) and Inanc (2018).

In addition to cultural factors, structural factors related to the gender stratification of labor market may also predict a gendered response to job insecurity. Men continue to be employed more often and for more hours than women (OECD, 2019a), and contribute most to the household income in many Dutch couples (Nieuwenhuis et al., 2017). The greater importance of the male compared to female partner’s employment for household financial position may make the male partner’s potential job loss more stressful than the female partner’s potential job loss. Because of these two reasons, we hypothesize: (*Hypothesis 3*) (a) The negative association of one’s own job insecurity with one’s own satisfaction with the partner relationship is stronger for men than for women, (b) the negative association of one’s partner’s job insecurity with one’s own satisfaction with the partner relationship is stronger for women than for men.

*The partner’s job position and the accumulation of job insecurity.*

Job insecurity may be experienced differently in sole-earner compared to dual-earner partnerships. When the household is dependent on a single job, the threat of losing this job may be especially stressful, because the economic consequences are more severe (Brülle, 2016; Inanc, 2018). In contrast, in dual-earner couples, the partner provides a (partial) buffer to prevent severe economic consequences caused by job loss, just like dual earner couples are argued to be more resilient in times of economic crisis compared to single earners (Oppenheimer, 1997; Rogers, 2004). Given that a potential disruption to household income reduces relationship satisfaction (Blom et al., 2019; Inanc, 2018), it is plausible that more severe disruptions would even more stronglyreduce relationship satisfaction. Hence, we expect that: (*Hypothesis 4*) The negative association of one’s own job insecurity with one’s own satisfaction with the partner relationship is stronger in single-earner compared to dual-earner households.

Merely being a dual-earner couple may be an insufficient buffer, because job insecurity often clusters within particular couples (Grotti & Scherer, 2014). To provide an adequate buffer, it could be necessary that a partner is not only employed, but also has a secure job. The stability of the job of the partner then provides a (partial) financial buffer against possible job loss. The fear of losing multiple financial resources may be especially stressful (Inanc, 2018), therefore putting additional strain on the relationship.

In contrast, the role collaboration and companionate model of marriage perspectives argue that similarity in labor market experiences creates greater equality and understanding between partners (Rogers, 2004), which fosters empathy (Hodges, Kiel, Kramer, Veach, & Villanueva, 2010). In previous studies, this argument was made with respect to labor market participation and income (Blom, Kraaykamp, & Verbakel, 2017; Rogers, 2004), but we argue it is also valid for specific labor market experiences, such as job insecurity. Partners who both experience job insecurity can build conversations around these experiences, and thus have more empathy and understanding for each other. Hence, shared job insecurity may buffer the negative consequences of job insecurity for relationship satisfaction. In line with these arguments Inanc (2018) showed that joint experience of job insecurity between partners led to a smaller decline in mental wellbeing. We therefore test the following competing hypotheses: (*Hypothesis 5*) The negative association of one’s own job insecurity with one’s own satisfaction with the partner relationship is (a) stronger or (b) weaker when one’s partner is also insecure in his/her job.

*Educational differences: Employability and resources*

Similar to a partner’s job position, education could protect relationships from job insecurity. Education is an important social stratifying factor and resource, as higher educated people typically have better employment positions and incomes. The same level of objective job insecurity likely translates into less stress among high-educated people compared to low-educated people, because they experience better reemployment chances (Berglund & Wallinder, 2015), and have more financial resources. In support of this hypothesis, the negative association of job insecurity with well-being is weaker for those who are more employable (Green, 2011; Silla et al., 2009), because they foresee less severe consequences of potential job loss. Actual financial resources also likely affect how people react towards job insecurity because they can (at least temporarily) buffer against financial hardship. People with a lower education generally experience more difficulties making ends meet and have fewer savings (Eurofound, 2017), leaving them more vulnerable to income shocks. Because the lower educated are less likely to be re-employed and are more financially vulnerable after job loss job insecurity implies more stress and limitations in making future plans than for their higher educated counterparts. Therefore, we hypothesize: (*Hypothesis 6*) The negative association of job insecurity of (a) the individual and (b) the partner with relationship satisfaction is stronger for the lower educated than the higher educated.

Method

*Data and Sample*

To answer our questions we employed the Dutch Longitudinal Internet Studies for the Social Sciences (LISS) panel (Scherpenzeel, 2009 see also www.lissdata.nl). This online panel started in 2007 based on a probability sample of households drawn from the Dutch population registers and consisted of approximately 7,000 individuals living in 4,500 household. Households were provided with a computer and internet access if they did not possess it and members received financial compensation for participation. Panel attrition was higher among younger and lower educated individuals (Lugtig, 2014), but the LISS-panel remained largely representative (see www.lissdata.nl/about-panel/composition-and-response). LISS consisted of rotating modules: each month panel members had to complete a different module, with core modules repeated every year. For our analyses, we used the Family and Household module and the Work and Schooling module, which were conducted every year from 2008 to 2015 (waves 1 to 8), mostly in consecutive months. We selected observations of respondents who participated in both modules in a given year (45,552 observations of 11,684 individuals).

We analyzed observations of people with a cohabiting (either married or unmarried) partner (N= 29,666), who were of working age (25 to 60) (N=19,937), and who were either employed, unemployed or unable to work due to health or illness, or were a homemaker (N=19,518). We selected people whose partner fitted the same criteria (N=12,292). Observations where both partners were not employed were excluded (N=11,966). Because we were interested in gender relations, we include only different-sex couples (excluding 212 observations). Some respondents separated from their partner and had a new partner in a later wave. To ensure that changes over time were due to changes in job insecurity and not to having another partner, we excluded observations referring to a second relationship (13 respondents: 52 observations). Lastly, we selected people who had a valid score on our dependent variable, relationship satisfaction (excluding 166 observations). Our final sample consisted of 11,536 observations (5,779 male; 5,757 female) of 3,668 people (1,835 men; 1,833 women) in 1,855 relationships, with an average of 3.1 observation per person. Due to non-response on the dependent variable, the number of people in our sample was not exactly twice the number of couples, and the number of men was not exactly equal to the number of women. We used multiple imputation techniques to deal with missing values of independent variables, because 5.0 percent of the observations had one or more missing values. We applied truncated, logistic, and ordered logistic multiple imputation methods (5 datasets) using gender, contract type, gender role attitudes, (share of) household income, and all other variables in our model in a long format where we imputed missing values, but not whole-wave missing data (see Young and Johnson, 2015). Using multiple imputation leads to similar results compared to listwise deletion and the latter are available upon request. Table 1 shows descriptive information on all variables and the number of imputed values per variable.

*Measures*

*Relationship satisfaction* was measured with the statement ‘how satisfied are you with your current relationship?’ The answer categories ranged from 0 (*entirely dissatisfied*) to 10 (*entirely satisfied*). Questions about satisfaction are more stable and have a specific object (here the partner relationship) and are seen less transient and diffuse than moods (for instance happiness with the relationship) (Ilies, Wilson, & Wagner, 2009), and are widely used to investigate the quality of partner relationships (Blom et al., 2017; Hardie, Geist, & Lucas, 2014). The correlation between the partners’ relationship satisfaction is 0.491. Similar to many wellbeing measurements (Inanc, 2018), the scale was skewed with means of 8.3 (men) and 8.3 (women). See also Table A1 in the online appendix for further descriptive information. Note that we may fail to observe some extremely dissatisfied individuals, if relationship dissatisfaction is related to a depressed mood and reduces the willingness to participate in surveys. We considered this variable to be linear as many studies do (Blom et al., 2017; Hardie et al., 2014). Alternatively, other transformations and analyses may be considered such as dichotomizing and ordered logistic regressions, but these have many drawbacks (e.g. having a random cut-off point) (Inanc, 2018). In robustness tests, we (1) transformed relationship satisfaction to the second degree and (2) applied ordered logistic regression to deal with this skewedness (see Tables A2 to A7 in the online appendix). This exercise led to virtually similar conclusions.

 *Job insecurity* was derived from two questions, combining information on the employment situation and – if employed – on job insecurity. In order to not limit this study to dual-earner couples, we include single-earner couples. This implies, for instance, that we test the effect of partner’s job security on a sample including individuals with (an insecure or secure) job and without a job. Our job insecurity measurement referred to cognitive job insecurity; affective aspects of job insecurity were only theoretically assumed. The first question measured the main daily activity of a person, and we distinguished three groups: employed, unemployed or unable to work due to illness, and homemakers. People who were employed were divided by the level of job insecurity based on their answer to the question ‘It is uncertain whether my job will continue to exist’, for which answer categories ranged from 1 (*disagree entirely*) to 4 (*agree entirely*). The two highest scores on job insecurity were combined because of a limited number of cases. This resulted in a variable *job insecurity* with five categories: 1 (*employed, job is secure*), 2 (*employed, job is somewhat secure*), 3 (*employed, job is insecure*), 4 (*unemployed or unable to work*), 5 (*homemaker*). For men, we combined the categories homemaker and unemployed or unable to work because of the limited number of male homemakers. See Table A1 and A8 in the online appendix for further descriptive information on individual’s and partner’s job insecurity.

 Individual and partner’s *educational attainment* were measured by assigning the minimum number of years needed to achieve an educational degree based on the highest degree obtained. For not completed primary education this is 4 years, for completed primary education 6 years, for intermediate secondary education (VMBO) 7.25 years, for intermediate vocational education (MBO) 10.5 years, for higher secondary education/preparatory university education (HAVO/VWO) 11 years, for higher vocational education (HBO) 14 years, and for university 16.5 years. Analyzing education as a categorical variable (low, middle, or high education) led to the same conclusion. Use of a linear variable was advantageous for reasons of parsimony regarding interaction-coefficients. Because we used the highest obtained education during the study period, this variable is stable over time.

We controlled for several individual, partner, and relationship variables. The quality of the partner relationship is primarily influenced by factors in the private sphere, such as the presence of children, relationship duration, and marital status, but also by the division of employment and housework between partners (Blom et al., 2017; Fincham & Beach, 2010). We controlled for an individual’s *age,* whether the couple was *married* or cohabited, the *duration of the relationship* (plus squared), the *number of children living in the household under 25 years of age* (none, one or two, or three or more), and the *division of housework* between partners (about equal or the man does more versus the woman does more). The division of housework was measured with the question: “How is the household work divided between you and your partner?” for four aspects of housework: preparing food, laundry and ironing, house cleaning, and grocery shopping. The answer categories ranged from 1 (*I do a lot more than my partner*) to 5 (*my partner does a lot more than I*). The question proved to make a reliable scale (Cronbach’s alpha .859) but was non-linearly related to relationship satisfaction for women. Therefore we included it as a dummy whether the division was about equal or the man did more, versus if the woman did more. All linear independent variables were mean-centered.

[Table 1]

*Analytical strategy*

We used random and fixed effects models in Stata with the xtreg command to test our hypotheses, using robust standard errors. We tested random effects models to investigate between-person variation (which in contrast to OLS take the clustering of observations within individuals into account), whereas fixed effects models were included to investigate within-person variation. Put differently, random effects models estimated whether people with job insecurity suffer from lower relationship quality than people without job insecurity; fixed effects models estimated whether a change in job insecurity was related to a change in relationship quality for the same individual. Fixed effects estimates are not biased by unobserved heterogeneity of stable characteristics, which strengthens causality claims. However, because they estimate only within-individual change, fixed effect models cannot capture stable or long-term disadvantage, and reduce statistical power because within-individual change is less common than between-individual differences. Although random effects models estimate initial and stable effects, they may be more biased due to unobserved stable characteristics.

We ran our analyses separately for men and women. We formally tested gender differences for the coefficients of interest on a pooled sample with interactions between gender and all variables. All significant differences (p<.10) between men and women are indicated by bold coefficients in Tables 2, 3, and 4. Here, a significance level of p<.10 was preferred because we aimed to avoid falsely rejecting gender-differences due to reduced statistical power estimating interaction effects. P-values were specified in the results description if they were between 0.05 and 0.10. Because job insecurity often accumulates within couples (Grotti & Scherer, 2014), we simultaneously included the job insecurity of the respondent and a partner. In Table 2 we studied the effects of individual’s and partner’s job insecurity on their relationship satisfaction in random (Models 1a) and fixed effects models (Models 1b, which included control variables. In Table 3, Models 2a (random effects) and 2b (fixed effects) we investigated whether the association between individual’s job insecurity and relationship satisfaction differed by partner’s job position. Whether the association between individuals’ and partners’ job insecurity and relationship satisfaction differed by educational level was investigated in Table 4 (Models 3a, 3b, 4a, and 4b). The fixed effects analyses do not include education, as it is stable over time. Obviously it is used in the interactions with education.

Results

Model 1a in Table 2 showed our results on job insecurity and men’s relationship satisfaction in the random effects model. These analyses showed that men were less satisfied with their relationship when they experienced job insecurity, but not when their partners felt insecure in their jobs, suggesting effects of individual job experiences, but the absence of partner effects. Compared to men who felt secure, men who were just somewhat secure or who really felt insecure in their job, were significantly less satisfied with their partner relationship (*b* = -0.165 and *b* = -0.284 respectively). These effect sizes may seem relatively small, but the standard deviation of relationship satisfaction was relatively small as well. The sizes of these coefficients were about 13 (job is somewhat secure) and 22 (job is insecure) percent of the standard deviation of relationship satisfaction. Men were also less satisfied when they were unemployed or unable to work (*b* = -0.197; *p* = .06) compared to men who felt secure in their job. Their partner’s job insecurity did not affect men’s relationship satisfaction; women’s job insecurity was not related to lower relationship satisfaction for men. Women’s unemployment or inability to work, however, was associated with lower levels of relationship satisfaction among men (*b* = -0.207). These results were confirmed in the relatively strict fixed effects model (Model 1b), which examined within individuals whether changes in job insecurity coincided with changes in relationship quality. Men who became less secure about their job continuation, became less satisfied in their relationship (*b* = -0.105 and -0.175). However, in contrast to the random effect models, the fixed effect models indicated that when men or their female partners became unemployed or unable to work, men did not experience a decline in relationship satisfaction.

Women appeared sensitive to their own as well as their partner’s job insecurity when assessing their relationship satisfaction, providing evidence for both individual and partner effects. In Table 2, our results from the random effects model (Model 1a) showed that women were less satisfied when they were somewhat secure (*b* = -0.107) or insecure (*b* = -0.137) in their job compared to women who felt secure (which is about 8 and 10 percent of the standard deviation of relationship satisfaction). Women who were unemployed or unable to work were less satisfied with their relationship than women in a secure job (*b* = -0.260) and female homemakers were equally satisfied as women with secure jobs. In contrast to men, women appeared to be affected by their partners’ job insecurity; women whose partner felt somewhat secure (*b* = -0.082) or insecure (*b* = -0.184) rather than secure in his job were less satisfied with their relationship (6 and 14 percent of the standard deviation of relationship satisfaction). Women were also less satisfied in their relationship if their male partner was unemployed or unable to work compared to women whose partner had a secure job (*b* = -0.502). Testing this notion with the fixed effects model (Model 1b) weakened the evidence for an influence of women’s own job insecurity on relationship satisfaction, but evidence for the influence of the partner’s job insecurity effect remained. Changes in women’s job insecurity were not significantly related to changes in women’s relationship satisfaction. However, similarly to our findings in the random effects model, women became less satisfied with their relationship when their male partners became insecure in their jobs (*b* = -0.134). A slight reduction in male job security (from secure to somewhat secure) was not associated with a change in relationship satisfaction. Lastly, women whose partner became unemployed or unable to work experienced a decline in relationship satisfaction (*b* = -0.251).

Testing for gender differences showed that one’s job insecurity (feeling insecure) was more strongly associated to men’s relationship satisfaction than women’s satisfaction in the random and fixed effect models (*p* = .06 and .09 respectively). Similarly, partner’s job insecurity (feeling insecure) was more strongly related to women’s than men’s relationship satisfaction in the fixed effect model (*p* = .08). Lastly, partner’s unemployment or inability to work was more negatively related to relationship satisfaction among women than men (Models 1a and 1b).

 Overall, we found confirmation for a negative association between one’s own job insecurity and relationship satisfaction, when we compared individuals with different degrees of job insecurity (random effects models). When we tested our hypothesis by looking at changes within individuals (fixed effects models), we observed that men who became insecure in their employment became less satisfied with their relationship, but women did not. Hence, Hypothesis 1 was supported for men, and only partly supported for women. The somewhat different results from the random and fixed effects models among women may stem from unobserved (stable) characteristics leading to both transitions, but it could also be because the fixed effects analyses were unable to pick up long-term disadvantages or because of too few changes in job insecurity. The latter may be less likely however, given that there were quite a number of changes in job insecurity among women (see Table A1 in the online Appendix).

With our second hypothesis, we expected that the partner’s job insecurity would affect relationship satisfaction as well. For men, this was not the case. For women however, the partner effect of job insecurity existed; when men were more insecure, women were less satisfied in their partner relationship. Next, we expected gender differences in the association between one’s own and the partner’s job insecurity and people’s relationship satisfaction in Hypothesis 3. We found some indications that individual’s job insecurity was more negatively related to men’s satisfaction, and that partner’s job insecurity was more negative for women’s relationship satisfaction. Although the level of household income and gender role attitudes were part of the presumed mechanisms, dealing with how job insecurity relates to relationship satisfaction and with the differences between men and women, including these variables did not change our findings (results available upon request).

We will briefly discuss the associations between the control variables and relationship satisfaction in the random effects models (Models 1a in Table 2). People who cohabited, who were older, or had children, were less satisfied with their relationship. Relationship duration had a curvilinear association with relationship satisfaction and women who did the majority of the housework were less satisfied with their relationship. The higher educated had lower relationship satisfaction and men were less satisfied when their partner was higher educated, whereas women were more satisfied when their partner was higher educated.

[Table 2]

Models 2a and 2b in Table 3 indicated whether individual’s job insecurity was differently associated with relationship satisfaction depending on partner’s job position. In contrast with Hypothesis 4, these models showed that the association of men’s and women’s own job insecurity was related to their relationship satisfaction independently of their partner’s job status (whether they were unemployed/unable to work or homemaker) in both the random and fixed effects. Models 2a and 2b in Table 3 further indicated that the accumulation of job insecurity to some extent impacted the extent to which job insecurity was related to relationship satisfaction. Random effects model for men showed that men with an insecure job were less satisfied with their relationship when their partner had a secure job compared to when she was insecure or somewhat secure (*p* = .05) in her job. The fixed effects model showed the same (*p* = .09 and .10 respectively). Thus in line with Hypothesis 5b and in contrast to 5a, men were more satisfied when their partners experienced a similar level of job insecurity. Women’s relationship quality seemed equally influenced by their own or their partner’s job insecurity regardless of the other’s job insecurity, as the interaction coefficients failed to reach significance.

Educational differences in the association between job insecurity and relationship satisfaction were investigated in Models 3a, 3b, 4a, and 4b in Table 4. Among men, the results showed that higher educated men were less affected by own job insecurity, supporting the idea of buffering aspects that come with educational attainment. The lower men were educated the more negative the association became between being insecure in one’s job and relationship satisfaction both in Model 3a with random effects and in Model 3b with fixed effects. Feeling that the job was somewhat secure rather than secure was not more detrimental for lower educated men’s relationship satisfaction than for higher educated men. Additional analyses showed that the level of household income did not explain these educational differences (available upon request). Regarding women, higher and lower educated women were similarly affected by their own job insecurity: none of the interaction-coefficients were significant (Model 3a and Model 3b). Model 4a and 4b in Table 2 and 3 showed that partner’s job insecurity was similarly influential on one’s relationship satisfaction irrespective of the partner’s educational level as none of the interaction coefficients were significant.

In sum, we found confirmation for Hypothesis 6a for men, but not for women; the negative association between men’s job insecurity and their relationship was stronger for lower educated men. We did not find confirmation for Hypothesis 6b where we expected that the negative association between the partner’s job insecurity and one’s relationship satisfaction was more apparent when the partner was lower educated.

[Table 3 and 4]

Conclusion and Discussion

Many people experience job insecurity in contemporary labor markets (Balz, 2017; Lübke & Erlinghagen, 2014) and this study indicated that job insecurity is associated with a lower quality of couple relationships. We argued that feelings of insecurity in the work domain may have negative spillover effects to the relationship domain, and that a dyadic perspective is preferred to investigate this, because people may also be sensitive to job insecurity of their partner. In this article we therefore investigated whether one’s relationship suffers more or less from job insecurity depending on the partner’s job insecurity and we studied whether the consequences of job insecurity for relationship satisfaction were gender-specific and stronger for people with relatively few resources (moderations with educational attainment).

Our study showed that people were less satisfied with their partner relationship when they felt insecure about their job continuation. This was in line with the spillover of job insecurity (Bakker & Demerouti, 2013; Bolger et al, 1989), regarding emotional responses to job insecurity, and the extended family stress model (Blom et al, 2019; Conger et al, 2010), which concerns expected economic difficulties rising from job insecurity. This confirmation of the negative association between individual’s job insecurity and relationship quality corroborated previous findings using cross-sectional designs (Cheng et al., 2014b; Hughes & Galinsky, 1994; Hughes et al., 1992; Larson et al., 1994; Mauno et al., 2017; Mauno & Kinnunen, 1999). Our study, however, showed that the negative influence of own job insecurity only referred to men when we investigated changes of one’s job insecurity in fixed effect analyses. Men became less satisfied with their relationship when their jobs became more insecure; for women this was not the case. These differences regarding between and within-individual examinations were striking and raise doubt whether women’s job insecurity spills over to the relationship at all. Possibly confounding factors lead to both feelings of job insecurity and lower relationship satisfaction. For instance, people who were generally more negative could report both lower relationship satisfaction and more job insecurity, because of their personality characteristics such as pessimism. Such stable confounding factors may have driven the association found in the random effects analyses, but were kept constant in the fixed effects analyses.

Partner’s job insecurity was associated with relationship quality too, but only for women. Women became less satisfied with their relationship when their male partner felt more insecure about his job continuation. This important partner effect highlights the dyadic system of partner relationships; relationships are not only affected by individual circumstances, but by the partner’s circumstances as well (Blom et al., 2017; Johnson & Booth, 1998; Mauno et al., 2017). Our findings emphasized the gender differences in Dutch couples. A traditional behavioral pattern in combination with a still widespread traditional gender ideology (Thijs et al., 2017), may explain why women’s perception on the relationship quality is affected by their male partners’ job insecurity, but not vice versa. Possibly job insecurity has a less gendered influence on relationships in countries with a higher female labor participation or gender egalitarianism. This, however, is a topic for future investigation.

Importantly, a partner’s job situation affects not only couples’ relationship quality, there is also some indication that it alters how one’s own job insecurity is related to relationship quality. Men’s relationship quality suffered less from job insecurity when their female partner also experienced job insecurity. Possibly, similar experiences improves understanding and thus protects relationship (Rogers, 2004). This is in contrast to the expectation that accumulation of expected economic hardship harms relationships. The finding that men whose partner had a more secure job were less satisfied in their relationship, but not vice versa is also remarkable. A possible explanation may be found in disruption of gender roles. As noted by Inanc (2018, p. 554): women’s “labor market insecurity decreases the stigma attached to unstable employment for men by preventing husbands from further deviating from their provider role”. An individual perspective on relationship quality and job insecurity, which remains quite prominent (Mauno et al., 2017), would have overlooked these important influences of the dyadic environment.

Not every couple seemed equally affected by job insecurity. Lower educated men were less satisfied with their relationship when they felt insecure about their jobs compared to their higher educated counterparts. The spillover-crossover and family stress model thus seem to be more salient for lower educated men than for the higher educated. Prior research has established that the lower educated are exposed to more job insecurity than higher educated (Lübke & Erlinghagen, 2014). Our finding suggest that they are also more vulnerable to job insecurity, at least in terms of its consequences for relationship satisfaction. Macro-economic processes that induce feelings of job insecurity especially harm partner relationships of lower educated, whereas higher educated couples are not, or hardly affected. Note that education in this article is used as a rather broad indicator for various mechanisms including employability and financial resources. Future studies may want to aim to differentiate the various underlying mechanisms.

Although this research extended previous knowledge on relationship quality and job insecurity by simultaneously testing personal and partner’s job insecurity, how these interact within couples, by investigating inequality in the impact of job insecurity, and by using longitudinal data, some points for improvement remain. Foremost, indicators of job insecurity and relationship satisfaction could benefit from more precisemeasurements. Possibly, the non-finding of partner effects for men, and limited individual effects for women may stem from our measurements; more sensitive instruments may be able to pick up smaller effects. Notably, for measuring a couple’s employment situation we used an indicator of cognitive job insecurity. Additionally, affective job insecurity may be used to investigate the influence of job insecurity on relationships (Jiang and Lavaysse, 2018). We would also have appreciated a stronger instrument to measure for relationship quality, especially an instrument with a less skewed distribution. Nevertheless, we performed several robustness checks with alternative transformations that strengthened confidence in our results.

It further is important to acknowledge that we were not able to test underlying mechanisms behind the association of job insecurity and relationship satisfaction (in contrast e.g. Mauno & Kinnunen, 1999). Although we tested whether relationship satisfaction of higher and lower educated was differently affected by job insecurity, other studies may want to consider more precise mechanisms such as stress, income, household division of earnings, gender role attitudes, or employability, to explain differences (Green, 2011; Silla et al., 2009). Our analyses could not provide a decisive answer whether psychological and/or economic mechanisms were at play, mechanisms hypothesized from the spillover-crossover and family stress models. Testing more specific mechanisms could provide indication which theoretical mechanism is more prominent. Additionally, our data did not allow for investigating the influence of duration of job insecurity on relationship satisfaction, which could be a promising direction for future research. Finally, future research may want to investigate the impact of job insecurity on divorce or union dissolution, which is the extreme consequence of deteriorated relationship quality.

Our research highlights the importance of a dyadic perspective on relationships. Both the family stress model and the spillover-crossover notion do not explicate how partners’ employment characteristics interact (Bakker & Demerouti, 2013, Conger et al., 2010; Mauno et al., 2017). This research however showed that men’s relationship quality was not only influenced by his own job insecurity, but also by the difference in his and the partner’s job insecurity as well. Research on employment and family life should thus carefully consider not only both partners’ employment, but also how the influence of one’s employment on their personal life is dependent on the partner’s experiences. Furthermore, this study highlights important gender differences in the extent to which employment affects the quality of partner relationships. A gendered perspective therefore seems essential when investigating consequences of spillover-crossover notions or family stress models. Lastly, although previous research paid limited attention to whether individual and partner effects differs by socioeconomic status (Mauno et al., 2017), it seems a promising line of research as this study demonstrates.

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| Table 1. *Descriptive statistics of individual, partner, and relationship characteristics.* |
|  |  |  | Men | Women |
|  | Values |  | (N= 5,779) | (N=5,757) |
|   | Imputed (N) | Range | Mean/% | SD | Mean/% | SD |
| Relationship satisfaction | 0 | 0-10 | 8.32 | 1.31 | 8.26 | 1.32 |
| *Individual's job position* | 304 |  |  |  |  |  |
|  Job is secure |  | 0-1 | 18.43 |  | 14.78 |  |
|  Job is somewhat secure |  | 0-1 | 49.52 |  | 37.15 |  |
|  Job is insecure |  | 0-1 | 27.81 |  | 23.07 |  |
|  Unemployed or unable to work |  | 0-1 | 4.24 |  | 6.39 |  |
|  Homemaker |  | 0-1 | na |  | 18.60 |  |
| *Partner's job position* | 301 |  |  |  |  |  |
|  Job is secure |  | 0-1 | 14.81 |  | 18.55 |  |
|  Job is somewhat secure |  | 0-1 | 37.13 |  | 49.24 |  |
|  Job is insecure |  | 0-1 | 22.99 |  | 27.93 |  |
|  Unemployed or unable to work |  | 0-1 | 6.42 |  | 4.27 |  |
|  Homemaker |  | 0-1 | 18.65 |  | na |  |
| Individual's education (years)  | 0 | 4-16.5 | 11.32 | 3.09 | 10.94 | 2.96 |
| Partner's education (years) | 0 | 4-16.5 | 10.94 | 2.96 | 11.30 | 3.09 |
| Age | 0 | 25-60 | 45.46 | 8.98 | 43.41 | 9.11 |
| Relationship duration | 7 | 0-42 | 18.79 | 10.30 | 18.80 | 10.27 |
| *Marital Status* | 0 |  |  |  |  |  |
|  Cohabiting |  | 0-1 | 18.05 |  | 17.67 |  |
|  Married |  | 0-1 | 81.95 |  | 82.33 |  |
| *Division of housework* | 1 |  |  |  |  |  |
|  Equal or man does more |  | 0-1 | 36.36 |  | 25.55 |  |
|  Wife does more |  | 0-1 | 63.64 |  | 74.45 |  |
| *Number of children* | 0 |  |  |  |  |  |
|  None |  | 0-1 | 34.21 |  | 34.01 |  |
|  1 or 2 children |  | 0-1 | 53.23 |  | 53.74 |  |
|  3 or more children |   |  0-1 | 12.56 |   | 12.25 |  |
| Source. LISS panel 2008-2015, 5,779 observations of 1,835 men, 5,757 observations of 1,833 women. Statistics are before mean centering. na= not applicable |

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| Table 2. Relationship satisfaction and individual’s and partner’s job insecurity, random (differences between people) and fixed (changes within people over time) effects models. |
|   | Men | Women |
|  | Model 1a Random effects | Model 1b Fixed effects | Model 1a Random effects | Model 1b Fixed effects |
|   | B |   | SE | B |   | SE | B |   | SE | B |   | SE |
| *Individual's job insecurity* *(secure=ref)* |   |   |   |   |   |   |   |   |   |   |   |   |
|  Job is somewhat secure | -0.165 | \*\*\* | 0.042 | -0.105 | \* | 0.045 | -0.107 | \* | 0.042 | -0.053 |   | 0.047 |
|  Job is insecure | **-0.284** | **\*\*\*** | **0.047** | **-0.175** | **\*\*\*** | **0.051** | **-0.137** | **\*** | **0.055** | **-0.039** |  | **0.063** |
|  Unemployed or unable to work | -0.197 | # | 0.104 | 0.075 |   | 0.119 | -0.260 | \*\* | 0.090 | -0.036 |   | 0.096 |
|  Homemaker |  na |  |   | na |  |  | -0.094 |   | 0.069 | -0.031 |   | 0.096 |
| *Partner's job* insecurity *(secure=ref)* |  |  |  |  |  |  |  |  |  |  |  |  |
|  Job is somewhat secure | -0.025 |   | 0.041 | 0.019 |   | 0.045 | -0.082 | \* | 0.039 | -0.060 |   | 0.043 |
|  Job is insecure | -0.071 |   | 0.052 | **0.008** |  | **0.058** | -0.184 | \*\*\* | 0.049 | **-0.134** | **\*** | **0.055** |
|  Unemployed or unable to work | **-0.207** | **\*** | **0.091** | **0.032** |  | **0.109** | **-0.502** | **\*\*\*** | **0.098** | **-0.251** | **\*** | **0.112** |
|  Homemaker | -0.036 |   | 0.064 | -0.087 |   | 0.084 |  na |  |   | na |  |  |
| Individual's education | -0.019 | # | 0.010 | na |  |  | -0.041 | \*\*\* | 0.011 | na |  |  |
| Partner's education | **-0.027** | **\*** | **0.011** | na |  |  | **0.022** | **#** | **0.011** | na |  |  |
| Age | -0.017 | \*\*\* | 0.005 | **-0.093** | **\*\*** | **0.031** | -0.016 | \*\* | 0.005 | **-0.005** |  | **0.020** |
| Relationship duration | -0.003 |   | 0.005 | **0.032** |  | **0.032** | -0.005 |   | 0.005 | **-0.052** | **\*** | **0.021** |
| Relationship duration SQ | 0.001 | \*\* | 0.000 | 0.001 | # | 0.000 | 0.001 | \*\*\* | 0.000 | 0.001 | \*\* | 0.000 |
| Married (cohabitation=ref) | 0.287 | \*\*\* | 0.069 | -0.012 |   | 0.142 | 0.325 | \*\*\* | 0.069 | 0.128 |   | 0.129 |
| *Housework (equal or men does more=ref)*  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Wife does more | **0.040** |  | **0.042** | 0.043 |   | 0.051 | **-0.079** | **#** | **0.043** | -0.050 |   | 0.051 |
| *Number of children (non=ref)* |  |  |  |  |  |  |  |  |  |  |  |  |
|  1 or 2 children | **-0.051** |  | **0.054** | -0.020 |   | 0.074 | **-0.246** | **\*\*\*** | **0.050** | -0.149 | \* | 0.067 |
|  3 or more children | -0.172 | \* | 0.085 | -0.255 | \* | 0.117 | -0.240 | \*\* | 0.083 | -0.225 | \* | 0.109 |
| Constant | 8.252 | \*\*\* | 0.095 | 8.455 | \*\*\* | 0.162 | 8.270 | \*\*\* | 0.101 | 8.258 | \*\*\* | 0.155 |
| Sigma u | 1.040 |  |  | 1.369 |  |  | 1.095 |  |  | 1.372 |  |  |
| Sigma e | 0.830 |  |  | 0.830 |  |  | 0.797 |  |  | 0.797 |  |  |
| Source. LISS panel 2008-2015, 5,779 observations of 1,835 men, 5,757 observations of 1,833 women. na= not applicable. # p<.1, \* p<.05, \*\* p<.01, \*\*\* p<.001. Bold is significant (p<.1) difference between men and women. |

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| Table 3. Relationship satisfaction and interaction between individual’s and partner’s job insecurity, random (differences between people) and fixed (changes within people over time) effects models. |
|   | Men | Women |
|  | Model 2a Random effects | Model 2b Fixed effects | Model 2a Random effects | Model 2b Fixed effects |
|   | B |   | SE | B |   | SE | B |   | SE | B |   | SE |
| *Individual's job insecurity* *(secure=ref)* |   |   |   |   |   |   |   |   |   |   |   |   |
|  Job is somewhat secure | -0.230 | \*\* | 0.078 | -0.142 |   | 0.088 | -0.157 | \* | 0.077 | -0.096 |   | 0.084 |
|  Job is insecure | -0.447 | \*\*\* | 0.098 | **-0.331** | **\*\*** | **0.110** | -0.215 | \* | 0.096 | **-0.054** |  | **0.109** |
|  Unemployed or unable to work | -0.260 |   | 0.236 | 0.009 |   | 0.283 | -0.058 |   | 0.216 | 0.199 |   | 0.243 |
|  Homemaker |  na |  |   | na |  |  | -0.106 |   | 0.115 | -0.036 |   | 0.137 |
| *Partner's job* insecurity *(secure=ref)* |  |  |  |  |  |  |  |  |  |  |  |  |
|  Job is somewhat secure | -0.148 | # | 0.086 | -0.086 |   | 0.096 | -0.139 | # | 0.079 | -0.089 |   | 0.087 |
|  Job is insecure | -0.236 | \* | 0.096 | -0.112 |   | 0.110 | -0.169 | # | 0.094 | -0.088 |   | 0.104 |
|  Unemployed or unable to work | -0.236 |   | 0.222 | 0.113 |   | 0.239 | -0.582 | \*\* | 0.208 | -0.391 | # | 0.224 |
|  Homemaker | -0.035 |   | 0.099 | -0.115 |   | 0.125 |  na |  |   | na |  |  |
| *Interaction (I) individual and (P) partners job insecurity* |  |  |  |  |  |  |  |  |  |  |  |  |
| (I) somewhat secure \* (P) somewhat secure | 0.129 |   | 0.100 | 0.095 |   | 0.109 | 0.097 |   | 0.095 | 0.087 |   | 0.101 |
| (I) somewhat secure \* (P) insecure | 0.144 |   | 0.108 | 0.080 |   | 0.117 | 0.022 |   | 0.108 | 0.000 |   | 0.114 |
| (I) somewhat secure \* (P) unemployed | 0.019 |   | 0.237 | -0.116 |   | 0.247 | 0.063 |   | 0.226 | 0.130 |   | 0.245 |
| (I) somewhat secure \* (P) homemaker | -0.025 |   | 0.109 | -0.013 |   | 0.120 |  na |   |   |  na |   |   |
| (I) insecure \* (P) somewhat secure | 0.233 | # | 0.120 | 0.215 | # | 0.129 | 0.086 |   | 0.112 | 0.000 |   | 0.120 |
| (I) insecure \* (P) insecure | 0.296 | \* | 0.133 | 0.245 | # | 0.146 | 0.082 |   | 0.129 | 0.001 |   | 0.141 |
| (I) insecure \* (P) unemployed | 0.105 |   | 0.253 | -0.018 |   | 0.258 | 0.207 |   | 0.261 | 0.249 |   | 0.282 |
| (I) insecure \* (P) homemaker | 0.064 |   | 0.137 | 0.129 |   | 0.153 |  na |   |   | na |  |  |
| (I) unemployed \* (P) somewhat secure | 0.054 |   | 0.288 | 0.052 |   | 0.334 | -0.090 |   | 0.212 | -0.120 |   | 0.226 |
| (I) unemployed \* (P) insecure | 0.207 |   | 0.304 | 0.172 |   | 0.325 | -0.429 |   | 0.319 | -0.490 |   | 0.347 |
| (I) homemaker \* (P) somewhat secure |  na |   |   | na |  |  | 0.050 |   | 0.122 | 0.025 |   | 0.132 |
| (I) homemaker \* (P) insecure | na |  |  | na |  |  | -0.050 |   | 0.150 | -0.058 |   | 0.165 |
| Constant | 8.322 | \*\*\* | 0.106 | 8.516 | \*\*\* | 0.174 | 8.298 | \*\*\* | 0.110 | 8.293 | \*\*\* | 0.162 |
| Sigma u | 1.040 |  |  | 1.367 |  |  | 1.094 |  |  | 1.377 |  |  |
| Sigma e | 0.831 |  |  | 0.831 |  |  | 0.797 |  |  | 0.797 |  |  |
| Source. Models are controlled for or variables listed in Table 1. LISS panel 2008-2015, 5,779 observations of 1,835 men, 5,757 observations of 1,833 women. na= not applicable. # p<.1, \* p<.05, \*\* p<.01, \*\*\* p<.001. Bold is significant (p<.1) difference between men and women.  |

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| --- |
| Table 4. Relationship satisfaction and interaction education and individual’s and partner’s job insecurity, random (differences between people) and fixed (changes within people over time) effects models. |
|  | Men | Women |
|  | Random effects models | Fixed effects models | Random effects models | Fixed effects models |
|  | Model 3a | Model 4a | Model 3b | Model 4b | Model 3a | Model 4a | Model 3b | Model 4b |
|   | B |   | SE | B |   | SE | B |   | SE | B |   | SE | B |   | SE | B |   | SE | B |   | SE | B |   | SE |
| *Individual's job insecurity*  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| *(job is secure=ref)* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Job is somewhat secure | -0.172 | \*\*\* | 0.043 | -0.165 | \*\*\* | 0.042 | -0.113 | \* | 0.046 | -0.103 | \* | 0.045 | -0.108 | \* | 0.042 | -0.105 | \* | 0.042 | -0.054 |   | 0.047 | -0.052 |   | 0.047 |
|  Job is insecure | **-0.291** | **\*\*\*** | **0.048** | **-0.284** | **\*\*\*** | **0.047** | **-0.183** | **\*\*\*** | **0.052** | **-0.175** | **\*\*\*** | **0.051** | **-0.138** | **\*** | **0.054** | **-0.136** | **\*** | **0.055** | **-0.040** |  | **0.063** | **-0.039** |  | **0.063** |
|  Unemployed or unable to work | -0.160 |   | 0.100 | -0.198 | # | 0.104 | 0.120 |   | 0.116 | 0.079 |   | 0.120 | -0.272 | \*\* | 0.094 | -0.261 | \*\* | 0.090 | -0.035 |   | 0.097 | -0.040 |   | 0.096 |
|  Homemaker | na |  |  | na |  |  | na |  |  | na |  |  | -0.086 |   | 0.071 | -0.095 |   | 0.069 | -0.051 |   | 0.095 | -0.035 |   | 0.096 |
| *Partner's job insecurity*  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *(job is secure=ref)* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Job is somewhat secure | -0.024 |   | 0.041 | -0.025 |   | 0.041 | 0.021 |   | 0.045 | 0.022 |   | 0.045 | -0.083 | \* | 0.039 | -0.081 | \* | 0.040 | -0.059 |   | 0.043 | -0.057 |   | 0.044 |
|  Job is insecure | **-0.071** |  | **0.051** | -0.072 |   | 0.052 | **0.009** |  | **0.058** | **0.013** |  | **0.058** | **-0.186** | **\*\*\*** | **0.049** | -0.183 | \*\*\* | 0.050 | **-0.134** | **\*** | **0.055** | **-0.132** | **\*** | **0.055** |
|  Unemployed or unable to work | **-0.205** | **\*** | **0.091** | **-0.209** | **\*** | **0.092** | **0.036** |  | **0.108** | **0.055** |  | **0.108** | **-0.500** | **\*\*\*** | **0.098** | **-0.466** | **\*\*\*** | **0.096** | **-0.248** | **\*** | **0.112** | **-0.234** | **#** | **0.123** |
|  Homemaker | -0.037 |   | 0.064 | -0.038 |   | 0.068 | -0.088 |   | 0.084 | -0.084 |   | 0.087 | na  |  |   | na  |  |   | na |  |  | na |  |  |
| Individual's education | -0.034 | \*\* | 0.013 | -0.019 | # | 0.010 | na |  |  | na |  |  | -0.056 | \*\*\* | 0.016 | -0.041 | \*\*\* | 0.011 | na |  |  | na |  |  |
| Partner's education | **-0.026** | **\*** | **0.011** | **-0.028** | **#** | **0.015** | na |  |  | na |  |  | **0.022** | **#** | **0.011** | **0.021** |  | **0.014** | na |  |  | na |  |  |
| *Interactions* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Individual's job insecurity \* Own educ.* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Job is somewhat secure \* Education | 0.008 |   | 0.013 |  |  |  | 0.019 |   | 0.014 |   |   |   | 0.020 |   | 0.014 |  |  |  | 0.023 |   | 0.016 |  |  |  |
|  Job is insecure \* Education | 0.035 | \* | 0.015 |  |  |  | 0.042 | \* | 0.017 |  |  |  | 0.020 |   | 0.018 |  |  |  | 0.011 |   | 0.021 |  |  |  |
|  Unempl \* Education | 0.059 | # | 0.033 |  |  |  | 0.080 | # | 0.043 |  |  |  | -0.013 |   | 0.037 |  |  |  | -0.001 |   | 0.035 |   |  |   |
|  Homemaker \* Education | na |  |  |  |  |  | na |  |  |   |  |   | 0.021 |   | 0.024 |  |  |  | -0.022 |   | 0.033 |  |  |  |
| *Partner's job insecurity \* Partner's educ.* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Job is somewhat secure \* Education |  |  |  | 0.002 |   | 0.014 |  |  |  | 0.017 |   | 0.015 |  |  |  | -0.008 |   | 0.012 |  |  |  | -0.011 |   | 0.014 |
|  Job is insecure \* Education |  |  |  | 0.005 |   | 0.018 |  |  |  | 0.009 |   | 0.021 |  |  |  | 0.011 |   | 0.016 |  |  |  | 0.007 |   | 0.018 |
|  Unempl. \* Education |  |  |  | -0.002 |   | 0.035 |  |  |  | 0.079 | # | 0.040 |  |  |  | 0.033 |   | 0.033 |  |  |  | 0.013 |   | 0.043 |
|  Homemaker \* Education |  |  |  | 0.000 |   | 0.022 |  |  |  | 0.029 |   | 0.031 |  |  |  | na  |  |   |  |  |  | na |  |  |
| Constant | 8.258 | \*\*\* | 0.095 | 8.253 | \*\*\* | 0.095 | 8.463 | \*\*\* | 0.163 | 8.454 | \*\*\* | 0.160 | 8.276 | \*\*\* | 0.101 | 8.267 | \*\*\* | 0.101 | 8.265 | \*\*\* | 0.155 | 8.254 | \*\*\* | 0.155 |
| Sigma u | 1.041 |  |  | 1.034 |  |  | 1.382 |  |  | 1.384 |  |  | 1.093 |  |  | 1.096 |  |  | 1.380 |  |  | 1.371 |  |  |
| Sigma e | 0.830 |  |  | 0.830 |  |  | 0.830 |  |  | 0.830 |  |  | 0.797 |  |  | 0.797 |  |  | 0.797 |  |  | 0.797 |  |  |
| Source. Models are controlled for or variables listed in Table 1. LISS panel 2008-2015, 5,779 observations of 1,835 men, 5,757 observations of 1,833 women. na= not applicable.# p<.1, \* p<.05, \*\* p<.01, \*\*\* p<.001. Bold is significant (p<.1) difference between men and women. |