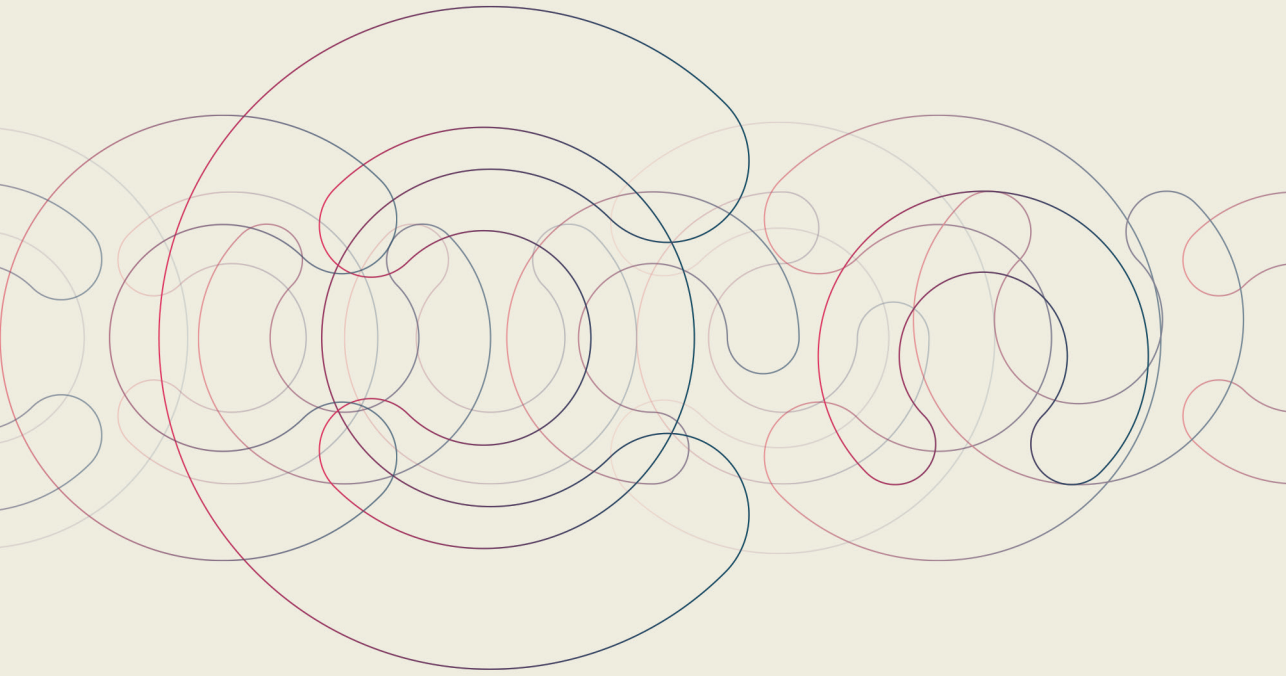
Partner relationship quality under pressing work conditions

Longitudinal and cross-national investigations



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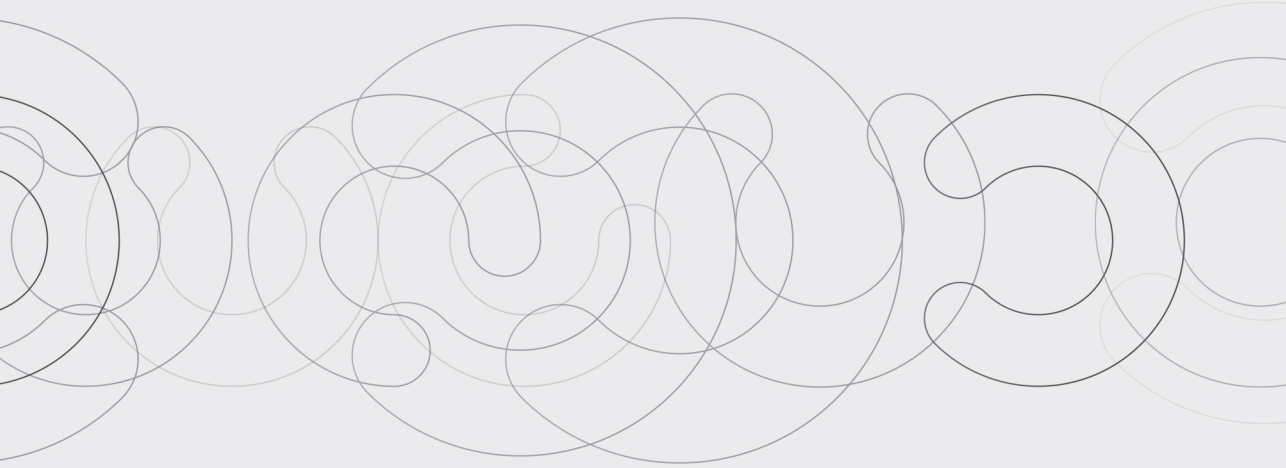

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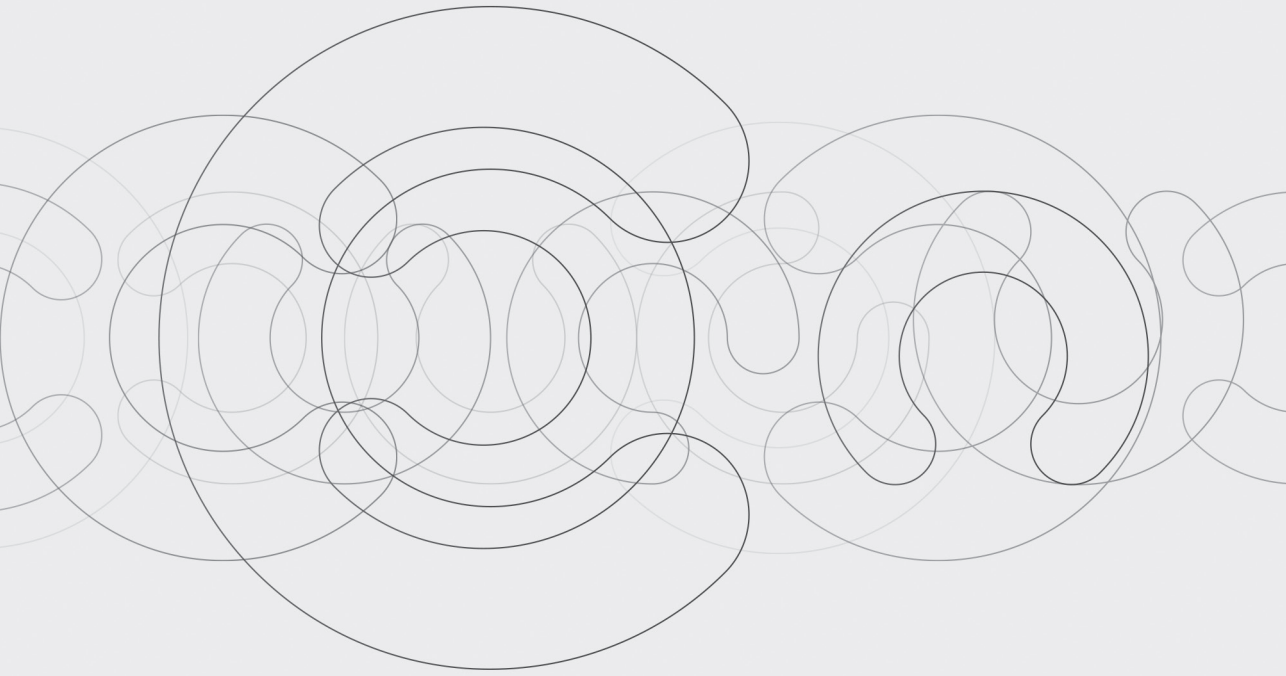
Synthesis



1.1 Introduction

1.1.1 Employment and relationships

The romantic couple relationship is a cornerstone of many people's daily lives. The romantic couple provides a foundation for exchanges of love, affection, support, and resources (Musick & Bumpass, 2012; Waite & Lehrer, 2003). A well-functioning relationship contributes to mental, physical, and social well-being (Proulx, Helms, & Buehler, 2007; Robles, Slatcher, Trombello, & McGinn, 2014; Umberson, Williams, Powers, Liu, & Needham, 2006; Warner & Kelley-Moore, 2012), and to the well-being of children (Amato & Sobolewski, 2001; Knopp et al., 2017). A romantic couple relationship can also serve as a buffer in dealing with adversity, thus reducing the influence of problems on the partners' well-being (Røsand, Slinning, Eberhard-Gran, Røysamb, & Tambs, 2012; Warner & Kelley-Moore, 2012). Fundamental to sharing emotional, time, and economic resources is the quality of the partner relationship, which is the focus of the current dissertation.

Next to family and relationship characteristics, the quality of a romantic couple relationship is affected by the partners' work life. Work life and family life are two central domains, which are interconnected and affect each other (Eby, Maher, & Butts, 2010). Positive and negative experiences at work influence how partners act at home and therefore affect the partner relationship (Bakker & Demerouti, 2013; Eby et al., 2010). The benefits provided by employment, such as financial well-being and time structuring, also impact the family (Jahoda, 1981; Paul & Moser, 2009). Lack of labor market involvement may lead to poverty, which could influence communication and family dynamics and stir conflict between the partners (Conger et al., 1990; Conger, Conger, & Martin, 2010; Conger, Rueter, & Elder, 1999). Because the time people spend in employment cannot be spent on other tasks, employment is a major determinant of a couple's division of care work and household labor, but also influences joint leisure activities (Grunow, Schulz, & Blossfeld, 2012; Kalmijn & Bernasco, 2001; Mannino & Deutsch, 2007; Nitsche & Grunow, 2018). Furthermore, partners derive their self-esteem, identity, social status, and sense of control in part from their participation in the labor market (Jahoda, 1981; Meisenbach, 2010; Paul & Moser, 2009; Rao, 2017; Townsend, 2002; Warren, 2007). Work life inevitably spills over to the partner relationship, affecting how couples communicate with each other, how well they understand and empathize with each other, and how close they feel to one another (Danner-Vlaardingerbroek, Kluwer, Van Steenbergen, & Van Der Lippe, 2013; Debrot, Siegler, Klumb, & Schoebi, 2017; Ilies, Schwind, & Heller, 2007; Stevens, Kiger, & Riley, 2006). Hence, employment may affect families in both positive and negative ways.

Just as one's own employment influences the relationship, the partner's experiences in the labor market influence the relationship as well (Bakker & Demerouti, 2013; Eby et al., 2010; Elder, Johnson, & Crosnoe, 2003). The partner's labor market experiences influence the time structure, financial well-being, social status, and identity of the couple as well (Conger et al., 2010; Fuwa, 2004; Lane, 2009; Meisenbach, 2010). This suggests that it is

important to incorporate the experiences of both partners when studying the consequences of labor market experiences for the quality of the partner relationship. However, the labor market experiences of men may have different consequences for the relationship than women's work experiences. Given the traditionally separate life spheres of men and women and continuing traditional gender role ideologies (Johnston & Swanson, 2006; Townsend, 2002), men's and women's employment experiences may impact the partner relationship differently. Therefore, this research pays special attention to gender differences.

Employment factors may not affect all relationships similarly. Personal preferences, personal characteristics, family circumstances, and the societal context may influence the consequences of employment-derived time structure, financial well-being, and identity for the quality of the partner relationship. These factors might, for instance, lead to a greater emphasis on traditional gender roles or increased financial demands. Thus, the current research includes their moderating influences as well.

This dissertation presents research on the consequences of employment for the quality of the partner relationship. It aims to answer two main questions: (i) *To what extent do employment factors affect the quality of the partner relationship?* (ii) *Does the impact of employment factors on the quality of the partner relationship depend on individual gender norms, the family context, and the macro-economic situation?*

1.1.2 Societal background

Developments in the labor market have changed family life and relationship dynamics throughout the Western world. This research focuses on the Netherlands, Australia, and the United Kingdom as examples of countries where such developments have taken place. It furthermore includes a cross-country investigation of the influence of the macro-economic context in Europe. The labor market developments that have most influenced employment and partner relationships are women's increased labor market participation, women's increased contribution to the household income, the economic crisis, and the flexibilization of labor markets. These societal developments thus form the backdrop of this research. They have influenced the division of labor between partners by making it more equal or induced, while inducing economic hardship on many families.

Starting with women's labor market participation, in most Western countries women steadily became more involved in paid work over the 20th century (Charles, 2011). Some countries, such as the Netherlands, experienced a rapid rise in female labor participation, while others, for instance the USA, started out with a relatively high proportion of women in the labor force (Charles, 2011). Figure 1.1 presents the extent to which women became more involved in the labor market in the EU 28 countries, Australia, the Netherlands, and the United Kingdom. This development has led to changes in household organization and in the division of labor between partners (Brines, 1994), which may have affected the quality of partner relationships.

Furthermore, women's contribution to the household income has increased substantially in most Western countries since the 1970s (Nieuwenhuis, Van der Kolk, & Need, 2017), due to women's increased educational attainment (Van Hek, Kraaykamp, & Wolbers, 2016) combined with their labor market participation (Charles, 2011). Women's share of the household income especially rose in the Netherlands, Germany, and Spain, and to a lesser extent in the United Kingdom, between 1980 and 2010, while this trend leveled off in Australia and the USA during this period (Nieuwenhuis et al., 2017). This resulted in an increasing number of couples in which women earned more than their male partners (Klesment & Van Bavel, 2017). Women earn more than their male partners in 17 percent of Dutch couples[1]. Across Europe, this figure ranges from some 15 percent in Austria and the Czech Republic to more than 33 percent in Slovenia (see Klesment & Van Bavel, 2017; Wang, Parker, & Taylor, 2013; Winkler, Mcbride, & Andrews, 2005; Wooden & Hahn, 2014).

Not all macro-economic developments have led to greater labor market participation or to a higher income for men or women. The recent economic crisis in Europe, starting in 2007, produced a sharp rise in unemployment in much of Europe (European Central Bank, 2012). In the EU 28, unemployment rose from 6.3 percent in 2008 to 10.8 in 2013 (Figure 1.2). Unemployment rose especially rapidly in Spain and Greece, but in the Netherlands, too, the level of unemployment more than doubled between 2008 and 2013. Economic hardship due to unemployment of either partner may lead to tension within families (Brand, 2015; Conger et al., 2010; Schneider, Harknett, & McLanahan, 2016). Even couples not directly hit by the crisis may worry about their future economic situation and job security. As unemployment levels rise, many workers feel less secure in their jobs (Erlinghagen, 2008; Milner, Kavanagh, Krnjacki, Bentley, & Lamontagne, 2014).

Beyond the economic crisis, globalization and the associated flexibilization of the labor market have increased employment insecurity (Blossfeld, Buchholz, Hofäcker, & Kolb, 2011; Blossfeld, Klijzing, Mills, & Kurz, 2005). As Figure 1.3 shows, the number of people with temporary employment contracts steadily increased in many European countries over the past decades, though this trend differs between countries. Temporary employment became more prevalent in the Netherlands between 2000 and 2016, while Australia and the United Kingdom saw a relatively stable trend. Globalization and flexibilization have resulted in increasing inequalities; in particular, younger people, women, and people from the lower classes or with a lower education have become less secure in their jobs (Blossfeld et al., 2005, 2011; Gebel & Giesecke, 2016). An insecure labor market, moreover, may produce feelings of insecurity even among those with permanent employment (Balz, 2017; Erlinghagen, 2008).

1 Based on data from 2007 and 2011 in Klesment and Van Bavel (2017).

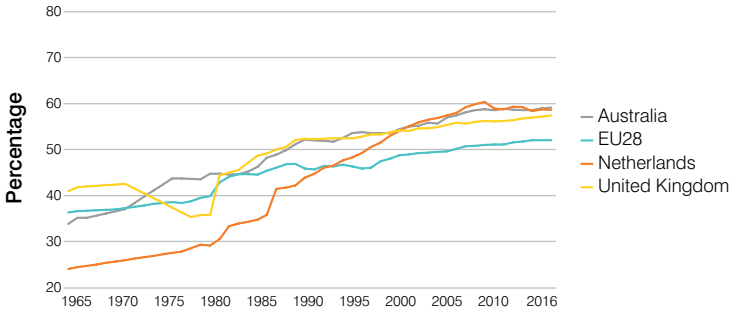


Figure 1.1 Female labor force participation rate (women age 15+) in Australia, Europe (EU 28 countries), the Netherlands, and the UK.[2] Source: World Bank (2017a).

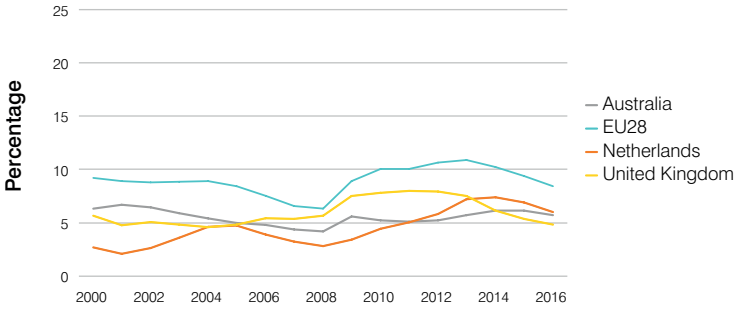


Figure 1.2 Trends in unemployment rates. Source: World Bank (2017b).

1.1.3 Relationship quality

The quality of the partner relationship is the focus of the current research. That quality is generally defined as a person's subjective evaluation of the couple relationship, reflecting numerous characteristics of the relationship such as support and communication (Spanier, 1979). Two general indicators of relationship quality are satisfaction and happiness with the relationship. Satisfaction is considered to be more stable and specific, while happiness is more changeable and diffuse (Ilies, Wilson, & Wagner, 2009). People's satisfaction with their partner relationship is the object of study here. Relationship satisfaction is strongly linked to relationship processes and characteristics, such as communication (Lavner,

2 Data is interpolated and derived from national statistics. Sharp increases in labor force participation could potentially be due to changes in measurements of labor force participation. Graph represents the EU 28 countries excluding Croatia, the Czech Republic, Estonia, Germany, Latvia, Lithuania, Slovakia, and Slovenia because of missing data in the first several years.

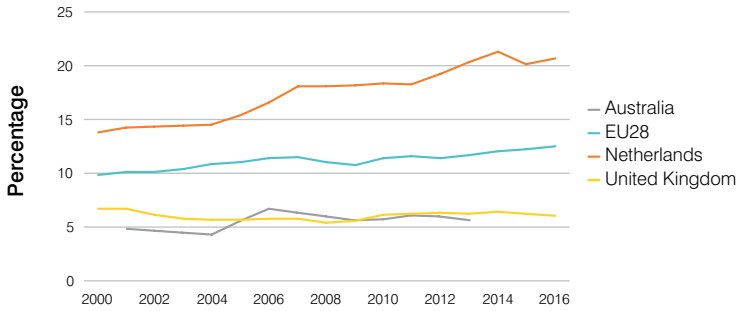


Figure 1.3 Temporary employees as a percentage of total employed population. Source: ILO (n.d.).

Karney, & Bradbury, 2016), relationship problems (Lavner, Karney, Williamson, & Bradbury, 2017), conflict (Cui & Donnellan, 2009), and ways conflicts are solved (Kurdek, 1995). In addition to relationship satisfaction, this study examines family life satisfaction, using cross-national data. Family life satisfaction refers to one's satisfaction with the nuclear family and specifically the partner relationship (Chapman & Guven, 2016; Greenstein, 2009; Hu & Yucel, 2018; Shim, Lee, & Kim, 2017; Wyrobková & Okrajek, 2014). It is sometimes used as a proxy for relationship satisfaction (Chapman & Guven, 2016).

1.2 Theoretical perspectives

Previous research has applied multiple key theoretical traditions to study and explain the influence of the division of employment and of economic hardship on partner relationships. These theories are presented below. This brief introduction is meaningful because several of the limitations encountered in previous work relate to the ability to differentiate between the mechanisms postulated by these theories. Indeed, better differentiation of the mechanisms and extension of these theories are among the main contributions of the current research. Before discussing the theories, however, I argue the relevance of three perspectives to the study of the quality of partner relationships: the dyadic perspective, the gender perspective, and the longitudinal perspective. These perspectives should be kept in mind when discussing the theories applied and previous research.

First, I argue that incorporating both partners' experiences is valuable when applying theory to the study of the quality of partner relationships. The life course perspective states that people are embedded in social relationships and one's own life is linked to the lives of significant others, known as the 'linked lives' principle (Elder, 1994; Elder et al.,

2003). Because people lead 'linked lives', transitions in one person's life influence others as well (Elder et al., 2003; Johnson & Booth, 1998). Hence, the employment experiences of both the individual and the partner influence the relationship (Bakker & Demerouti, 2013; Eby et al., 2010; Elder et al., 2003). This is referred to as the dyadic perspective.

Second, I argue that a gender perspective is important, in combination with the dyadic perspective, as dyadic effects may not have a similar influence on men's and women's relationship satisfaction. Several of the theories applied in previous research do incorporate a gender perspective, either in their original form or in later adaptions. Hypotheses with gendered outcomes have been deduced. In short, these entail that perceptions of the partner relationship and the way the division of employment and economic hardship affects the quality of the partner relationship could differ between men and women. For example, employment is conventionally linked more to men, with women traditionally responsible for care work and household labor (Johnston & Swanson, 2006; Thijs, Te Grotenhuis, & Scheepers, 2017; Townsend, 2002). Indeed, men generally attach more importance to their role as provider than women do, and men derive their sense of identity and status more strongly from employment (Coltrane & Shih, 2010; Doucet, 2009; Meisenbach, 2010; Townsend, 2002). Thus, men's employment may potentially have a greater influence on the quality of the relationship than women's employment.

Third, aside from the dyadic and gender perspectives, I argue for inclusion of a longitudinal perspective. Life events may lead to changes in well-being, but over time, as people adapt and grow accustomed to new situations, well-being may return to its previous level (Headey, 2008, 2010; Lucas, 2007; Luhmann, Hofmann, Eid, & Lucas, 2012). However, important or impactful life events may have long-lasting effects on relationship satisfaction and well-being (Luhmann et al., 2012; Umberson, Williams, Powers, Chen, & Campbell, 2005). Changes in employment circumstances may lead to temporary changes in relationship quality, or if the employment events are particularly impactful they may bring about lasting change. Previous studies indeed suggest that changes in the dynamic between partners caused by employment factors may impact the quality of their relationship (Oppenheimer, 1997; Rao, 2017; Sherman, 2017). Changes in the division of employment between partners and changes in the economic situation of the household might trigger a re-evaluation and reappraisal of the relationship, with either favorable or unfavorable outcomes.

1.2.1 Theories on the division of labor and relationship quality

Five main theories were identified from previous studies investigating the consequences of the division of employment between partners for partner relationships. Although they have been used to study very different types of questions, including the occurrence of certain divisions of employment, these theories may also guide expectations on relationship quality. These theories are the specialization theory (Becker, 1981, 1985), the relative resources or bargaining theory (Blood & Wolfe, 1960), the equity theory (Walster,

Walster, & Berscheid, 1978), the role collaboration or companionate perspective (Burgess, Locke, & Thomes, 1963; Rogers, 2004; Wilcox & Nock, 2006), and the 'doing gender' perspective (West & Zimmerman, 1987).

Becker's household specialization of labor theory argues that the utility of the household is highest when one partner specializes in employment and the other in care and domestic labor (Becker, 1981, 1985). Greater time investment in a particular task is said to lead to more productivity and thus increased relationship utility. Specialization in paid labor would thus result in higher hourly wages and a higher occupational status (Bardasi & Taylor, 2008), and therefore to reduced financial pressure. Specialization within households may also reduce time pressure. Indeed, studies have found that single-earner households experience less time pressure and work-family conflict than dual-earner households (Craig & Mullan, 2009; Nomaguchi, 2009). However, benefits of specialization, in terms of higher wages and reduced time pressure, are not always found (Byron, 2005; Pollmann-Schult, 2011). The basic principles of specialization bypass considerations of gender. The theory holds that when tasks are divided between partners, regardless of gender, the partner relationship is better off (Grunow, et al., 2012; Kalmijn, Loeve, & Manting, 2007). Becker (1981, 1985), however, argued that because women generally earn lower hourly wages than men and men have a comparative advantage in the labor market labor, women are more likely to perform the role of unpaid household labor in specialized households. Overall, according to the specialization of labor theory, both partners reap higher levels of relationship satisfaction when one partner is employed and the other is not formally employed but takes care of domestic tasks instead.

The relative resource or bargaining theory argues that the partner who brings more resources to the relationship has more power in the relationship (Blood & Wolfe, 1960). One's labor earnings are important resources in this regard and hence a source of power within the relationship. Partners can use this power to avoid or 'buy out' unpleasant tasks and negotiate more favorable conditions (Coltrane, 2000). This theory has been used mainly to explain differences in household labor between partners. Empirical findings show that men's contribution to household labor increases when women's earnings rise to the point at which she earns equal to him or works as many hours, but his contribution within the home declines when she out-performs him (Baxter & Hewitt, 2013; Bittman, England, Sayer, Folbre, & Matheson, 2003; Brines, 1994; Coltrane, 2000; Grunow, et al., 2012; Legerski & Cornwall, 2010; Mannino & Deutsch, 2007). Though the theory appears unable to explain the division of household labor within female breadwinner couples, bargaining power could still be relevant to them, leading for example to other more favorable conditions in the relationship for one partner. All in all, the relative resource or bargaining theory implies that breadwinners are more satisfied with the relationship than their economically dependent partners.

Next, equity theory, as formulated by Walster et al. (1978), argues that partners put effort into the relationship and compare their own effort to their partner's effort. People

want reciprocity in interpersonal relationships. They are distressed when they perceive a relationship to be inequitable, and aim to restore it to an equitable arrangement. One type of effort put into the relationship is the time devoted to household tasks. Here, two types of imbalance may exist, namely under-benefiting (contributing more than the partner) and over-benefiting (contributing less than the partner) (Walster et al., 1978). Previous authors have demonstrated that both under-benefiting and over-benefiting induce negative communication and feelings such as frustration, anger, guilt, and sadness (Guerrero, La Valley, & Farinelli, 2008; Lively, Steelman, & Powell, 2010; Sprecher, 2001a). Being in an inequitable relationship, hence, leads to less satisfaction with the relationship (Cate, Lloyd, Henton, & Larson, 1982; Sprecher, 2001b). Most previous research using an equity theory framework relates relationship quality to the division of household labor, particularly whether this division is perceived as unfair (e.g., Braun, Lewin-Epstein, Stier, & Baumgärtner, 2008; Klumb, Hoppmann, & Staats, 2006; Lively et al., 2010; Shechory & Ziv, 2007). However, aside from the division of household labor, feelings of inequity could also arise from the division of employment. According to equity theory, it might therefore be deduced that the more partners' labor market participation differs, the more dissatisfied they will be with the partner relationship.

Next, both the companionate model of marriage (Wilcox & Nock, 2006) and the role collaboration perspective (Rogers, 2004) highlight the benefits of similar experiences between partners. Partners with similar experiences, for instance, in the labor market, might understand each other better and therefore share more emotional intimacy, improving the quality of the relationship (Rogers, 2004; Wilcox & Nock, 2006). The companionate model of marriage emphasizes love and 'successful teamwork', but also strong commitment to the relationship, in contrast to so-called individualistic and institutional models of marriage (Amato, 2009; Burgess et al., 1963; Cherlin, 2004). Furthermore, the companionate model of marriage emphasizes that the blurring of traditional gender roles and reduction of patriarchal authority leave more room for emotional intimacy and understanding (Burgess et al., 1963; Wilcox & Nock, 2006). The role collaboration perspective argues, based partly on bargaining theory, that people divide less enjoyable tasks more equitably when they have more similar resources (Rogers, 2004). These perspectives suggest that separate spheres would result in dissimilar experiences, leaving little room for emotional intimacy and understanding and inducing inequitable divisions of tasks. The implication is that the more similar partners' labor market experiences are, the more satisfied the partners will be with the relationship.

Lastly, the 'doing gender' theory has been used to study the consequences of the division of employment for couple relationships. This theory holds that gender is constructed through social interactions (West & Zimmerman, 1987). Thus, people are socialized to behave according to gendered attitudes, roles, and beliefs, which motivate them to act in gender-typical ways (Leaper & Friedman, 2007). People and their behavior are also evaluated according to gendered accountability structures, from which deviations

are discouraged (West & Zimmerman, 1987). Traditional ideals of masculinity and femininity are challenged when households diverge from the more traditional male breadwinner arrangement, and this may impact the partner relationship (Coughlin & Wade, 2012; Franklin & Menaker, 2014; Sherman, 2017). Although the doing gender theory has been influential in family studies, it has been criticized for, among other things, not sufficiently taking human agency and resistance to gender expectations into account (Connell, 2010; Deutsch, 2007). All in all, previous studies have concluded that relationships are of a lower quality the more they diverge from traditional male breadwinner arrangements (Weisshaar, 2014).

1.2.2 Theories on economic hardship and relationship quality

Theories have also been introduced to investigate the consequences of economic hardship on relationship quality. Most prominent among these is the family stress model (Conger et al., 1990, 2002, 2010, 1999), though the spillover-crossover model has also been used (Bakker & Demerouti, 2013; Bolger, DeLongis, Kessler, & Wethington, 1989).

According to the family stress model, low income and negative economic events that hit a family, such as unemployment or loss of income, raise the economic pressure that couples face (Conger et al., 1990, 1999, 2002, 2010). Such pressures may include unpaid bills, the need to cut expenses, and unmet material needs. Such situations cause emotional distress and may induce problems including depression, anger, anxiety, alienation, and anti-social behavior (Conger et al., 2002, 2010). Partners' reactions to economic hardship influence the quality of the partner relationship, particularly if they entail "aggressive or angry responses, such as criticism, defensiveness, and insensitivity, as well as withdrawal of supportive behaviors" (Conger et al., 2002, p. 181). This model has been extended to include the negative consequences of economic hardship for parenting behavior and children via relationship quality (Conger et al., 2010; Mistry, Lowe, Benner, & Chien, 2008; Neppl, Senia, & Donnellan, 2016). Along similar lines, more economic resources has been argued to make relationships more stable, as resources enable couples to deal with potential economic setbacks (Oppenheimer, 1997). From the family stress model it may thus be deduced that the more economic problems couples encounter, the less satisfied the partners will be with their relationship.

The spillover-crossover model is more general than the family stress model and concerns how experiences at work influence the home domain, and the partner in particular (Bakker & Demerouti, 2013; Bolger et al., 1989). 'Spillover' is the transmission of concerns from an individual's work life to their personal life, and 'crossover' is the transmission of concerns from an individual's work life to their partner's personal life. The model posits that high demands at work deplete personal resources, such as energy and emotional reserves (Bakker & Demerouti, 2013). Employees may therefore become exhausted and less concentrated, and even suffer psychosomatic problems due to work demands. These factors influence how people act at home. A depletion of resources may

make it difficult to combine work and family life. Overworked partners may exhibit a lack of support for the other and become irritable, ultimately influencing the quality of the partner relationship (Bakker & Demerouti, 2013; Danner-Vlaardingerbroek, Kluwer, Van Steenbergen, & Van der Lippe, 2016; Danner-Vlaardingerbroek et al., 2013; Liang, 2015; Stevens et al., 2006). Influences on the relationship stem from both partners' employment, since each partner is influenced by the experiences of the other (so-called crossover, also termed inter-individual cross-domain transmission) (Bolger et al., 1989; Westman, Etzion, & Danon, 2001; Westman, Vinokur, Hamilton, & Roziner, 2004). Crossover may affect the partner directly via empathy or indirectly via communication with the partner (Westman et al., 2001, 2004). Thus, the spillover-crossover model implies that both a person's own and the partner's employment problems will negatively affect the quality of the partner relationship.

1.3 Previous literature

1.3.1 The literature on the division of employment and relationship quality

Most prior research on the consequences of the division of employment has used the specialization theory (and its derivatives), the bargaining theory, and the doing gender theory to guide hypotheses. Conclusions differ substantially. Some studies conclude that specialization in employment is related to higher relationship quality (Furdyna, Tucker, & James, 2008; Lee & Ono, 2008[3]), while others find no influence or an opposite effect (Brennan, Barnett, & Gareis, 2001; Keizer & Komter, 2015; Keizer & Schenk, 2012; Schoen, Rogers, & Amato, 2006; Weisshaar, 2014). Hence, there seems to be no clear answer to the question of whether labor specialization helps relationships.

Weisshaar (2014) showed that unequal earnings in different-sex couples was associated with better relationship quality, supporting specialization. However, her comparison to same-sex couples led her to conclude that most of this difference was explained by the doing gender theory. Waismel-Manor, Levanon, and Tolbert (2016) found limited influence of the family economic structure on family satisfaction. However, they also found that a transition to a more equal earner division between the partners was related to a decline in family satisfaction, which they too interpreted in light of the doing gender perspective (Waismel-Manor et al., 2016). Other studies have found support for the bargaining theory; that is, higher earning partners were happier with their relationship (e.g., Lee & Ono, 2008[3]; Rogers & DeBoer, 2001). Some authors have found that an equal division of employment (dual earners) fosters relationship quality (Hardie, Geist, & Lucas, 2014), whereas others have found limited influence (Keizer & Schenk, 2012) or no effects (Amato, Johnson, Booth,

3 Lee and Ono (2008) found support for the specialization hypothesis among US men and among Japanese men and women and support for the bargaining theory among US women.

& Rogers, 2003; Keizer & Komter, 2015). Gong (2007) reported that in couples where women worked more hours than their partner both men and women reported lower quality of their relationship, which was attributed to status inconsistency. Other research along these lines has focused on domestic violence or infidelity rather than relationship quality. These studies suggest that intimate partner violence is more prevalent among dual-earner than single-earner households (Franklin & Menaker, 2014), whereas male infidelity is more prevalent where income differences are larger, particularly when women are the main earner (Munsch, 2015).

While some authors have produced rather similar results, they have attributed their findings to different theoretical mechanisms (Furdyna et al., 2008; Lee & Ono, 2008; Weisshaar, 2014). Overall, research on the division of labor between partners provides no conclusive answer on whether the division of labor affects the partner relationship, and specifically its quality, and if it does, via what mechanisms this takes place.

1.3.2 The literature on economic hardship and relationship quality

Most previous research on economic hardship and relationship quality has used the family stress model to study whether and how economic problems affect the partner relationship. In accordance with this theory, findings indicate that economic hardship does negatively affect the quality of the partner relationship, via distress and behavior within the relationship (see, e.g., Aytaç & Rankin, 2009; Dew & Yorgason, 2009; Falconier & Epstein, 2010; Gudmunson, Beutler, Israelsen, McCoy, & Hill, 2007; Hardie & Lucas, 2010; Hraba, Lorenz, & Pechačová, 2000; Kinnunen & Feldt, 2004; Kwon, Rueter, Lee, Koh, & Ok, 2003; Merolla, 2017; Shim et al., 2017; Vinokur, Price, & Caplan, 1996; Williams, Cheadle, & Goosby, 2015). This mechanism has been thoroughly tested in diverse contexts, such as among couples in Argentina (Falconier & Epstein, 2010), the Czech Republic (Hraba et al., 2000), Finland (Kinnunen & Feldt, 2004), South Korea (Shim et al., 2017), Turkey (Aytaç & Rankin, 2009), and the USA (Gudmunson et al., 2007). Much of the previous research, furthermore, has used dyadic designs, and although the majority applied cross-sectional surveys, the family stress model has also been supported by research using longitudinal designs (Neppl et al., 2016). This suggests that economic hardship is indeed related to lower relationship quality, in line with the family stress model.

Conclusions from research on unemployment and relationship quality are slightly more ambiguous. Most such studies find that unemployment leads to worse relationship outcomes; that is, unemployment produces greater financial strain, which negatively affects the quality of the partner relationship (Kinnunen & Feldt, 2004; Larson, 1984; Wyrobková & Okrajek, 2014). Aside from inducing financial problems, unemployment also affects partners' sense of well-being and self-worth (Jahoda, 1981; Paul & Moser, 2009), as demonstrated by qualitative research (Lane, 2009; Rao, 2017; Sherman, 2017). In contrast, some authors have suggested that it is not stable (unfavorable) employment situations, but primarily changes in employment that harms relationships (Van den Troost, Matthijs,

Vermulst, Gerris, & Welkenhuysen-Gybels, 2006). However, others found no such effect (Schoen et al., 2006). Studies on more extreme relationship outcomes have found that men who experienced economic hardship or were unemployed were more controlling and violent toward their partner (Schneider et al., 2016). Few studies have investigated the crossover effects of unemployment on relationship quality, as most focus on spillover.

Aside from current economic hardship, such as financial strain and unemployment, little research has investigated the consequences of future or expected economic hardship on relationship quality. However, a person's expectations about the future are important for the partner relationship (Blossfeld et al., 2011, 2005; Hofmann & Hohmeyer, 2013). The few studies that do exist focus primarily on job insecurity; only one investigated other reasons for future economic hardship (Kinnunen & Pulkkinen, 1998). That research found that people who expected economic strain in the future had lower quality relationships (Kinnunen & Pulkkinen, 1998). Research on job insecurity has concluded that people who experienced more job insecurity had lower quality family relationships (Barling & Macewen, 1992; Hughes & Galinsky, 1994; Hughes, Galinsky, & Morris, 1992; Mauno & Kinnunen, 1999). Hence, job insecurity does appear to spill over to relationships.

Beyond the spillover effects of job insecurity, little research has been conducted on the crossover effects of job insecurity. The (to my knowledge) single study investigating the crossover effects of job insecurity found no such effect (Mauno & Kinnunen, 1999).

1.4 Contribution of this dissertation

Building on previous studies' contributions to our understanding of the links between employment and relationship quality, the current study seeks to advance the literature in four ways. First, it explicitly incorporates the dyadic nature of the partner relationship by including the employment experiences of both partners. Second, it better tests specific mechanisms that relate employment to relationship quality. Third, it explores the universality of these mechanisms, specifically investigating for whom employment is more influential for the quality of the partner relationships (e.g., men versus women and higher versus lower educated). Fourth, unlike previous cross-sectional studies, it uses high-quality longitudinal data and cross-national data. These contributions are further discussed below.

1.4.1 Dyadic perspective

First, I incorporate the dyadic experience of the couple. Given that people lead linked lives (Eby et al., 2010; Elder et al., 2003), a relationship is influenced not only by one's own personal situation, but also by the characteristics of one's partner's situation (Bakker & Demerouti, 2013; Bolger et al., 1989). That is, a person's perception of their partner relationship will be affected by their own, as well as by their partner's experiences.

Neglecting the partner's experiences could lead to misestimation of the influence of employment on the partner relationship, since only half of the actors in the relationship are investigated. For instance, partners may become less satisfied with their relationship if their partner becomes unemployed, perhaps even to the same degree (or more) as if they themselves become unemployed. By not investigating these influences, the consequences of unemployment for the partner relationship may be underestimated. To thoroughly test theories on economic hardship, it is thus important to incorporate the experiences of both partners. This study therefore, includes the employment experiences of both.

1.4.2 Theoretical mechanisms

Second, I formulate hypotheses from several theoretical angles and seek some indication of which mechanisms are actually at play. I do this in three ways, namely, by including the division of household labor, by investigating specific divisions of labor for which two theories differ in their expectations on relationship quality, and by including employment and income simultaneously.

Regarding the inclusion of household labor, as partners divide both employment and household labor, both need to be investigated simultaneously. After all, one partner may do less household labor than the other because he or she is employed for more hours than the partner. Otherwise stated, the contribution in one domain may be dependent on the contribution in the other domain (Kalmijn & Monden, 2011). Previously, Kalmijn and Monden (2011) sought to disentangle equity and specialization mechanisms by defining couples' division of labor based on partners' involvement in employment and household labor. Using similar methods, this research distinguishes the implications of the theoretical notions of labor specialization and equity for people's satisfaction with the partner relationship.

Moreover, some theories produce similar predictions on relationship quality for certain groups, but diverge in their predictions for other groups. Specifically, it may be deduced from both specialization theory and the doing gender perspective that people in dual-earner couples will be less satisfied with their relationship than people in male breadwinner couples. However, the predictions of these theories regarding female breadwinner couples diverge. Research on these couples is relatively scarce, since most studies on the division of employment and relationship quality have focused on dual-earner versus male breadwinner couples (Hardie et al., 2014; Waismel-Manor et al., 2016; Weisshaar, 2014). Investigating female breadwinner couples may shed light on what theoretical mechanisms are most influential.

Additionally, scant previous research has included employment and income aspects simultaneously. This could be problematic since earnings as well as, or instead of, employment might cause employment to influence relationship quality. When taking income into account, the employment effect could indicate factors such as time structure and identity and status instead of poverty. The lack of clear differentiation arises both in

studies on the division of employment and income between partners (e.g. Bertrand, Kamenica, & Pan, 2015; Brennan et al., 2001; Weisshaar, 2014) and in research on economic hardship (e.g. Dew & Xiao, 2013; Williams et al., 2015). The current study thus incorporates both aspects simultaneously when appropriate to identify the mechanisms underlying the association between employment and couple relationships, apart from financial resources.

1.4.3 Conditional influences

Third, I study whether employment has a different influence on relationship quality depending on personal characteristics and attitudes, family context, and societal context. Most research implicitly assumes that any influence of the division of employment or economic hardship is rather universal. Few studies have investigated moderating effects. Neglecting these may lead to false rejection of hypotheses, since a positive effect for one group may be counterbalanced by a negative effect for another group.

Personal characteristics and attitudes may influence the extent to which employment factors affect the quality of the partner relationship. Yet, even gender has seldom been included as a moderating factor. However, gender is a crucial factor in relationships and in spillover from the work to the family domain. Traditionally, the male breadwinner model has been central in Western societies (Charles, 2011; Janssens, 1997). Even in contemporary Western societies, employment plays a stronger role for men's identity and well-being than for women (Coltrane & Shih, 2010; Doucet, 2009; Meisenbach, 2010; Strandh, Hammarström, Nilsson, Nordenmark, & Russel, 2013; Townsend, 2002). Men's employment may therefore affect the quality of the partner relationship differently than women's employment. Similarly, gender role attitudes shape how people evaluate situations; while one person may be satisfied with a traditional role division, another may be less so (Hengstebeck, Helms, & Rodriguez, 2014). This study therefore examines differences in the influence of employment on relationship quality between men and women and between people with traditional and egalitarian gender role attitudes.

Similarly, the family context may affect the influence of the division of employment and economic hardship on the quality of the partner relationship (Boss, Bryant, & Mancini, 2017; Elder et al., 2003). Family circumstances may induce a particular time structure or financial demand or highlight particular roles of men and women as appropriate. For instance, the presence of children may call for more efficiency in the household and more financial resources, and simultaneously highlight divergences from traditional labor divisions between partners (Baxter, Buchler, Perales, & Western, 2014; Chaulk, Johnson, & Bulcroft, 2003; Mistry et al., 2008). Thus, the current study examines whether the influence of the division of labor and economic hardship on relationships is dependent on the presence of children.

Similarly, the larger societal context may influence the association between employment and relationship quality. This has hardly been studied in previous research. Whereas some

literature indicates that the larger societal context could impact the link between employment and relationship quality (Hardie et al., 2014), only one previous study investigated cross-country differences (namely, Lee & Ono, 2008, which compared Japan to the USA). Findings thus far suggest that the relation between employment, or the division thereof, and relationship quality differs between countries. For example, the division of employment seems to affect individual well-being and the chance of divorce differently in different countries (Cooke et al., 2013; Kaplan & Stier, 2017; Stavrova, Schlösser, & Fetchenhauer, 2011; Treas, Van der Lippe, & Tai, 2011). Therefore, this study investigates whether and how the quality of the partner relationship is differently affected by employment across countries. Specifically, it focuses on the impact of macro-economic circumstances and how these affect the influence of economic problems on couple relationships.

1.4.4 Longitudinal and cross-national approach

Lastly, I use high-quality recent longitudinal and cross-national data. This is in contrast to many previous studies, which have relied on relatively old and cross-sectional data from a single country. For example, most research on relationship quality and female breadwinners uses US data from the late 1980s to the mid-1990s (Bertrand et al., 2015; Brennan et al., 2001; Furdyna et al., 2008; Gong, 2007; Wilcox & Nock, 2006; Winslow, 2011). Additionally, conclusions may differ when using a longitudinal design rather than a cross-sectional design. Application of longitudinal data analyses constitutes a major advance on prior research (Conger et al., 2010), and helps to "account for some of the largest methodological hurdles to understanding the association between economic factors and relationship quality" (Hardie et al., 2014, p. 734). People may end their partner relationship due to a negative event and its influence on the quality of the partner relationship (Kalmijn et al., 2007). These couples would not be captured by cross-sectional analysis.

Use of longitudinal data also has theoretical implications. As noted earlier, some previous literature indicates that changes in employment may be more important for the quality of the partner relationship than stable arrangements (Hardie et al., 2014; Van den Troost et al., 2006), although this finding is not universal (Schoen et al., 2006). Changes in employment may lead partners to renegotiate the division of household labor (Baxter & Hewitt, 2013), which could impact the relationship (Kluwer, Heesink, Van de Vliert, 1996, 2000). Such changes may induce stress and affect the relationship in the short term, but these effects may diminish over time as the partners grow accustomed to the new situation.

As noted before, because this study uses cross-national data, it is able to investigate whether partner relationships are similarly affected by employment factors across countries. Employing cross-national data allows investigation of the moderating impact of country characteristics, while also improving the generalizability of the results beyond single countries.

1.5 Research design

This section discusses the data used, the research population and selection of respondents, and potential sources of selection bias. Four data sources were used. Three are dyadic longitudinal data sources: the British Household Panel Survey (BHPS) (1997-2008); the Household, Income and Labour Dynamics in Australia (HILDA) survey (2001-2015); and the Dutch Longitudinal Internet Studies for the Social Sciences (LISS) (2008-2015). In these surveys, both partners were interviewed regarding their employment and relationship satisfaction, making them well suited to study relationships from a dyadic and longitudinal perspective. Also used was the cross-national data from the European Quality of Life Survey (EQLS) 2012, which covered 30 European countries. While the EQLS did not interview both partners, the main respondent did provide information on his or her partner's employment.

The current research centers inherently on people with a partner relationship, since only they can be satisfied or dissatisfied with their relationship. Furthermore, I selected people in a different-sex relationship. Many of the effects of employment on relationship quality may be gendered, which was of special interest in this study. The number of same-sex couples in the datasets used was too small to investigate them separately from different-sex couples. Combining same-sex and different-sex couples would have led to misestimation of the gendered effects of partner employment and the division of employment, which differ between same-sex and different-sex couples (Weisshaar, 2014). Also, the analyses include only partners living in the same household, excluding those who were in a relationship but did not live with their partner. These latter partners often did not share a financial or economic household. Hence, the mechanisms linking household economics to relationship satisfaction would not apply, or would apply less, in their situation. In addition, non-cohabiting partners were not included in the dyadic longitudinal data used. Lastly, because the main mechanisms examined relate to employment factors, couples were selected in which both partners were of working age. Hence, people under the age of 25 or older than 55 or 65 were excluded, either in the main analyses or robustness analyses, to account for entry to and exit from the labor market (OECD, 2016; Visser, Gesthuizen, Kraaykamp, & Wolbers, 2016).

To some extent the data used may exhibit some selectivity. People in low-quality relationships may divorce, leading to an overall higher level of satisfaction among the couples in my samples. However some arguments can be made against this claim. First, couples that divorce are no longer couples, so they are not of interest to this research. Furthermore, low relationship quality at certain time points or for longer periods does not always lead to separation; and the reverse is also true, couples with a relatively low level of distress also separate (Amato & Hohmann-Marriott, 2007; Hirschberger, Srivastava, Marsh, Cowan, & Cowan, 2009). Hence, selection due to divorce may be less substantial than perhaps expected. Furthermore, my longitudinal studies observe couples that eventually

divorce up to the point at which they separate. A decline in relationship quality following a particular event (e.g., job loss) is probably captured in the data, since partners do not separate immediately; the decision to divorce takes time (Gottman, 1993; Willén & Montgomery, 2006). However, people who are relatively dissatisfied with their relationship may have a lower sense of well-being and therefore be less willing to participate in surveys, skewing the samples somewhat toward those who are relatively satisfied with their relationship.

Furthermore, many of the questions studied concern the employment and relationship characteristics of both partners, such as the division of employment. Measurement of these generally requires direct questioning of both respondent and partner. Therefore, for the dyadic studies I selected couples in which both partners participated or both responded to the particular questions that were required for my measurements. This led to selection of couples in which both partners responded to the surveys. Nonetheless, people whose partner participated in the survey and provided a valid answer on relationship satisfaction were found to be slightly more satisfied with their relationship than partnered individuals whose partner did not participate in the survey (see Table A1.1 in Appendix 1).

1.6 Outline of the dissertation and summary of each chapter

This dissertation presents my investigation of the research questions in four empirical chapters which examine if and how employment factors affect the partner relationship. Table 1.1 summarizes the outline of this dissertation. The first two chapters investigate the *division of employment* between partners and its consequences for relationship quality. Chapter 2 examines whether the combined division of employment and household labor within couples influenced satisfaction with the partner relationship. Chapter 3 investigates the consequences of women being the main provider for relationship satisfaction.

The next two chapters concern the effects of *economic hardship* on the quality of the partner relationship. Economic problems faced by an individual, by the partner, and by the couple collectively may influence the quality of the partner relationship in different ways. Chapter 4 examines the effect of current economic hardship and expectations about future economic hardship on the quality of family relationships. The final empirical chapter, chapter 5, investigates the consequences of job insecurity, both one's own and one's partner's, for relationship satisfaction.

1.6.1 The division of employment: Specialization and equity

The first study (chapter 2) investigates the consequences of couples' division of time spent on employment and on household labor for satisfaction with the partner relationship. Combining employment and household labor, rather than including only one of the two

Table 1.1 Overview of empirical chapters

		Independent variable	Dependent variable	Data sources	Type of data
Part 1 Division of employment	Chapter 2	Division of employment and household labor	Relationship satisfaction	British Household Panel Survey (1997-2008)	Longitudinal dyadic data
	Chapter 3	Female breadwinner arrangements	Relationship satisfaction	Household, Income and Labour Dynamics in Australia survey (2001-2015)	Longitudinal dyadic data
Part 2 Economic hardship	Chapter 4	Economic problems, current and expected	Family life satisfaction	European Quality of Life Survey (2012)	Cross-national non-dyadic data
	Chapter 5	Job insecurity of individual and partner	Relationship satisfaction	Dutch Longitudinal Internet Studies for the Social Sciences (2008-2015)	Longitudinal dyadic data

types of labor, enabled me to distinguish between the theoretical notions of specialization and equity (based on Kalmijn & Monden, 2011). Specialization relates to differentiation in the content of tasks (employment versus household labor), whereas equity in terms of hours indicates similarity in time devoted to family needs (irrespective of the content of tasks). I studied the direct effects of equity in hours and specialization on relationship satisfaction and but more importantly, I investigated the extent to which these associations differed for people with egalitarian gender role attitudes and for people with children. Figure 1.4 outlines this study.

This study builds upon previous research in multiple ways: by combining the division of employment and household labor, by investigating gender differences in the effects of these divisions, by clarifying the moderating influence of gender role attitudes, and by using dyadic longitudinal data. The dyadic data from the British Household Panel Survey (1997-2008) was used to test the hypotheses.

Surprisingly, no main effects were found for equity in terms of hours spent and for specialization on relationship satisfaction. The results do suggest that among men with egalitarian gender role attitudes, equity in hours positively affects relationship satisfaction. Moreover, specialization was found to be related to lower relationship satisfaction among men with egalitarian gender role attitudes. No conditional effects were found for women or for the presence of children. In conclusion, there are no indications of a universal, direct association between the level of specialization and equity in hours and couples'

relationship satisfaction. However, under certain conditions the division of labor does appear to influence men's relationship satisfaction. These findings suggest that when couples' division of tasks is in accordance with men's preferences, men are more satisfied with the partner relationship.

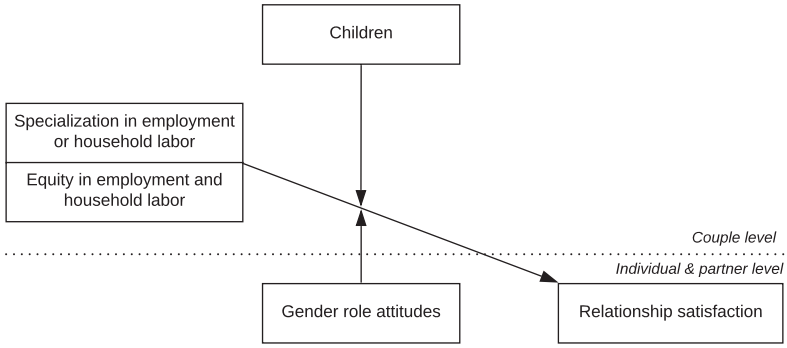


Figure 1.4 Research model chapter 2, the division of labor and relationship satisfaction

1.6.2 The division of employment: Female breadwinner couples

The second study (chapter 3) concerns women who earn more than their male partner. It aims to determine whether people are less satisfied with their partner relationship when the woman becomes the main provider. It also examines whether these transitions have a different influence on relationship satisfaction depending on partners' gender role attitudes, that is, whether they hold egalitarian or traditional gender attitudes. Figure 1.5 presents the outline of this study. The goal was to disentangle which mechanisms link the division of employment between partners to their relationship satisfaction, by studying female breadwinner couples and by combining the division of employment with labor earnings between partners. Female breadwinner couples were defined as couples in which women earned more than their employed male partner or where women were the single earner because their partner was unable to work or was a homemaker. Hence, I differentiated single earners from dual earners in which one out-earned the other, which proved to be important for the study. Hypotheses were formulated based on specialization, bargaining, role collaboration, and the doing gender theories.

This study expands on previous literature by considering two dimensions of breadwinning, namely, income and employment; in investigating gender differences; by studying whether gender role attitudes moderate these associations; and by using dyadic longitudinal data. To study the hypotheses, 15 waves of the Household, Income and Labour Dynamics in Australia panel survey were used, covering relationships between 2001 and 2015.

Results associate becoming a female breadwinner with a decline in relationship satisfaction among women, and to a lesser extent among men, especially when men became unable to work due to unemployment or illness. The decline in men's satisfaction following men's inability to work was mostly attributed to the decline in income and employment hours. In dual-earner couples where women out-earned their partner, both men and women were generally less satisfied with their relationship. While hypothesized, gender role attitudes did not influence these associations. The results provide most support for the doing gender perspective, though it is not fully or consistently upheld.

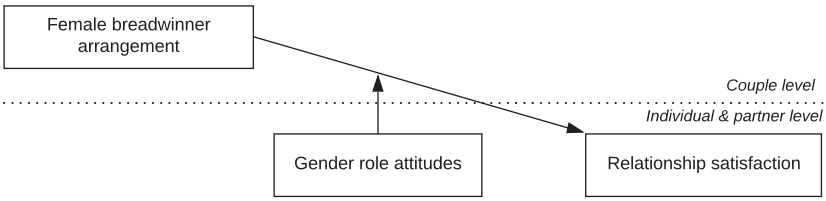


Figure 1.5 Research model chapter 3, female breadwinners and relationship satisfaction

1.6.3 Economic hardship: Current and expected hardship

The third study of this dissertation (chapter 4) investigates how precarious economic circumstances influence satisfaction with family life. Figure 1.6 presents an overview. Based on the family stress model, both current economic hardship and expectations about future economic hardship were expected to influence satisfaction with family life, since both factors raise the stress people experience. Additionally, I hypothesized that current and expected economic hardship amplify each other's consequences for satisfaction. I expected that precariousness would be more harmful to family life satisfaction when children were involved and when national-level unemployment was steeply rising.

This study expands on previous research and on the family stress model by investigating the consequences of both current and expected economic (financial and employment) problems for relationship quality. Furthermore, it advances the literature by including the labor market experience of both partners and by investigating the moderating influence of the presence and number of children. Lastly, the differential influence of the macro-economic situation is investigated using cross-national European data from the European Quality of Life Survey (EQLS) 2012 covering 30 European countries.

The results indicate that people who experience economic hardship are less satisfied with their family life. People who expect economic hardship are also less satisfied with their family life, indicating the importance of expectations about the future for family well-being. Economic expectations' negative influence on families was generally not

more severe among people currently experiencing more economic difficulties. This indicates that more affluent families are also susceptible to negative expectations about economic hardship, and their prosperity does not provide a sufficient buffer against this insecurity. Family life satisfaction did not suffer more under economic hardship or expected hardship when children were involved. An exception was that expecting a financial decline was especially harmful to satisfaction among people with larger families. Lastly, current and expected economic hardship were not found to be more harmful when unemployment was rising more steeply in a country. That last indicates that economic crises do not amplify the influence of economic hardship on family life satisfaction, even though economic crises lead to more widespread economic hardship and expected hardship.

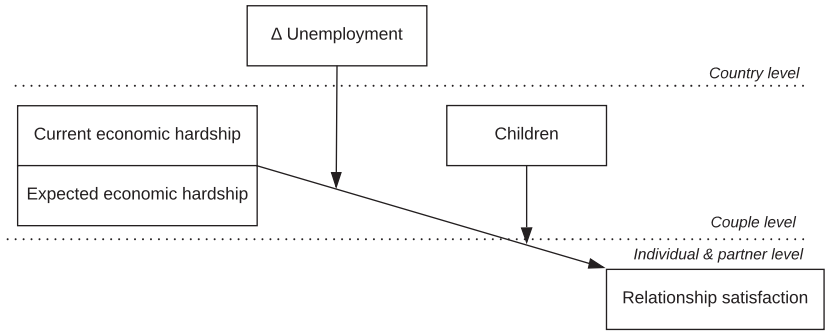


Figure 1.6 Research model chapter 4, economic hardship and expected economic hardship and relationship satisfaction

1.6.4 Economic hardship: Job insecurity

The fourth study (chapter 5) concerns subjective job insecurity and relationship satisfaction. Economic transitions, such as economic crisis, flexibilization of the labor market, and globalization, have undermined job security in many countries. Many people feel insecure about their job continuation, and this insecurity could influence their partner relationship. This chapter examines whether a person's own and their partner's job insecurity affects satisfaction with the partner relationship. Furthermore, it investigates whether these effects differ between men and women and between people with a higher and lower education. Figure 1.7 presents an overview.

This study advances on prior research in several ways, namely by incorporating both the spillover and crossover effects of job insecurity, by investigating gender and educational differences in these effects, and by using dyadic longitudinal data. I based my

hypotheses on the spillover-crossover model and resource perspective. For the study, I used the Dutch Longitudinal Internet Studies for the Social Sciences (LISS) panel (2008-2015).

The results indicate that men and women were less satisfied with their relationship when they felt more insecure about their job. Women were also less satisfied with their partner relationship when their male partner experienced greater job insecurity, but interestingly not vice versa. Among the lower educated, relationship satisfaction was affected by job insecurity, especially among men, while people in higher educated couples were not or were hardly influenced by job insecurity. In conclusion, the spillover effects of job insecurity do appear to negatively influence satisfaction with the partner relationship, but crossover seems to affect only women's relationship satisfaction. The lower educated were found to be especially vulnerable to the effects of job insecurity, and their relationship satisfaction seemed to be particularly affected by insecure labor market positions.

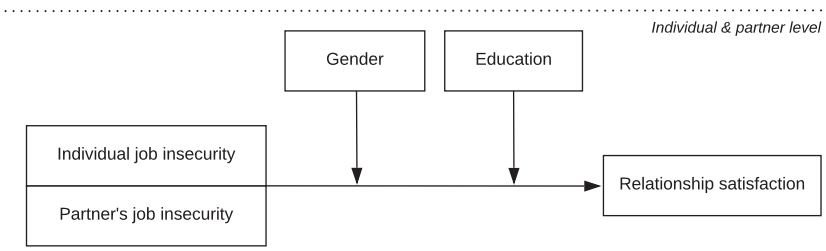


Figure 1.7 Research model chapter 5, job insecurity and relationship satisfaction

1.7 Future directions, implications and conclusion

1.7.1 Limitations and directions for future research

While this research extended and improved upon previous research, it held several drawbacks. It relied on a single measurement of relationship quality, namely one's satisfaction with the partner relationship or a similar formulation. While this provided a good indication of relationship quality (Helms, 2013), future research may want to consider multiple survey items and measurements to more elaborately capture different aspects of relationship quality. Similarly, future researchers could include an instrument that is more precise or sensitive in detecting change in the quality of the partner relationship. While these were available in relatively small-scale cross-sectional studies, they were largely unavailable in reliable cross-national and longitudinal data. Similarly, many of the more

subjective measurements, such as job insecurity, were also measured with single items. These could also be measured more precisely, which may prove better able to pick up smaller, more subtle effects. However, it should be noted that the measurements used here should be able to pick up larger, more influential effects, and any influences overlooked are likely to be relatively minor.

Furthermore, while I found indications that certain mechanisms linked employment to the quality of the partner relationship, I was unable to formally test these specific mechanisms with measurements that captured the causal chain. Some previous studies have tested these specific processes. While it is less necessary to investigate already established mechanisms (such as the family stress model, which has been supported by previous studies, see Conger et al., 2010), the mechanisms of theoretical extensions do need to be tested. Future research could investigate specific mechanisms such as one's own job insecurity and the partner's job insecurity in connection with relationship quality with intermediating factors such as economic pressure, stress, and anger (see Mauno & Kinnunen, 1999). In addition, the mechanisms associated with some of the theories have been tested less often, at least in the context of employment and relationship quality. The doing gender perspective is an example in this regard. Few of the previous studies on employment and relationship quality guided by the doing gender perspective tested specific mechanisms; this may thus be a fruitful direction for future research.

Along similar lines, while theories, hypotheses, and previous research indicate causal relationships between employment factors and the quality of the partner relationship, these are difficult to establish. By using longitudinal panel data, I have been able to make this claim more convincingly than most previous studies, but even with longitudinal panel data I am unable to make definitive claims about the causal direction (Finkel, 1995). Other studies suggest that the quality of the partner relationship also influences work factors and the division of labor between partners (Kluwer, 2017; Schoen et al., 2006; Ten Brummelhuis, Van der Lippe, & Kluwer, 2010).

Additionally, the empirical chapters use various high-quality data sources appropriate for answering the respective questions. One data source would not have been sufficient to answer all of these questions, for example, due to a lack of statistical power in the relevant categories. For instance, too few female breadwinner couples may have been included. Use of various different sources and studying different countries means that the empirical studies do not refer to the same context. At the same time, it must be noted that I found little indication that employment was differently related to the quality of the relationship in different countries. Future research would greatly benefit from reliable cross-national, preferably longitudinal, data with extensive measurements of relationship quality.

Furthermore, this research primarily studied white (or native) different-sex couples. Minority groups were generally underrepresented in the datasets or were too small to distinguish and make statistical claims about them. While this is not necessarily a large

problem when investigating a general population, it may become a problem if findings are extrapolated to particular social groups. Specific mechanisms linking employment to the quality of the partner relationship may be different in different social groups (Conger et al., 2002; Furdyna et al., 2008; Weisshaar, 2014). Minority groups are interesting to investigate in their own right, and such research may serve an additional purpose, as investigating different social groups may help us to better understand how employment affects the partner relationship. For example, Weisshaar (2014) used same-sex couples to investigate which mechanisms link the division of labor to relationship outcomes.

Lastly, while I investigated whether economic hardship and the division of employment were differently related to relationship quality depending on one's attitudes, characteristics, and the family and macro-economic context, other moderating factors could be studied as well. Promising examples for future research include the differential influence of the social network, such as friendship networks and the extended family, and the normative climate in these networks and in the general society.

1.7.2 Policy implications

I began this chapter by noting the importance of the quality of the partner relationship for the well-being of the partners and their children, and the risk of divorce (Amato & Sobolewski, 2001; Knopp et al., 2017; Proulx et al., 2007; Tach & Halpern-Meekin, 2012). These consequences make relationship quality a relevant topic for policymakers. However, because factors that affect the quality of the partner relationship are primarily in the private sphere (Bradbury, Fincham, & Beach, 2000; Fincham & Beach, 2010), policymakers may be reluctant to intervene directly. Yet, this research points to indirect ways to improve the quality of partner relationships within society. Indeed, the work domain influences relationship quality. Precarious economic circumstances, such as poverty, unemployment, and job insecurity, influence the quality of the partner relationship. Therefore, in policy-making on, for example, flexibilization, governments could consider the consequences for family relationships. Or they could at least acknowledge the possible negative influence of macro-economic policies on couples. Additionally, policies that aim to reduce precarious labor market circumstances, poverty, or job insecurity will have the additional benefit of improving relationship quality. Policies that make employment more stable will benefit relationships as well, and generous unemployment and disability benefits may improve recipients' relationship quality.

Labor market policies do not affect everyone equally. The social groups most affected by increasingly precarious work are, for instance, the lower educated and migrant populations – as these groups are already overrepresented in precarious employment positions (Castles, de Haas, & Miller, 2014; Näswall & De Witte, 2003; Wolbers, 2000). This research indicates that among the lower educated population the quality of partner relationships is especially vulnerable to precarious labor positions. Therefore, policies that make precarious work more precarious may worsen the cumulative disadvantage facing

certain groups. Social policies that widen the security gap between precarious and non-precarious work induce greater social inequalities, even extending to partner relationships. Instead, policymakers could consider policies that protect the social positions of already vulnerable groups, thereby protecting the quality of their partner relationships.

1.7.3 General conclusion

The quality of contemporary partner relationships does seem to have been affected by major societal developments. Women's increased participation in the labor market has brought new divisions of labor as today, men are not always the main breadwinner, and women are not only homemakers. Additionally, major macroeconomic developments have changed the economic conditions of couples. This research demonstrates that new divisions of labor and economic hardship affect couples' satisfaction with their relationship.

First, men appear to be most satisfied with their partner relationship if their division of employment is aligned with the gender role attitudes they hold. Men seem more satisfied with their relationship when they are the main breadwinner in the relationship or when they are in a dual-earner household in which both partners earn about the same. Importantly, however, men become less satisfied with their relationship if women become the main provider. This seems to hold irrespective of men's personal attitudes toward appropriate gendered behavior. Women's relationship satisfaction seems to be less affected by the division of labor than men's relationship satisfaction, up to the point where women become the main provider for the family. At that point, women become less satisfied in their relationship. The increased participation of women in the labor market therefore seems to have had little influence on relationship satisfaction, as long as the gendered division of labor does not result in female dominance (i.e., as long as women do not become the main earner). For men it is important for the division to follow their attitudes toward appropriate gender roles. This finding highlights the continuity of traditional gender roles in the larger societal context. Progress has been achieved, since relationships do not necessarily suffer when women's labor participation is equal to men's. However, this progress still seems to have a long way to go before gender equality is achieved, given that relationship quality declines when women's work hours or earnings surpass those of men. These general conclusions seem to be mostly in line with the doing gender perspective, while less support is found for the more gender-blind theoretical perspectives. Therefore, gender and gendered expectations continue to play a fundamental role in relationship dynamics in contemporary society.

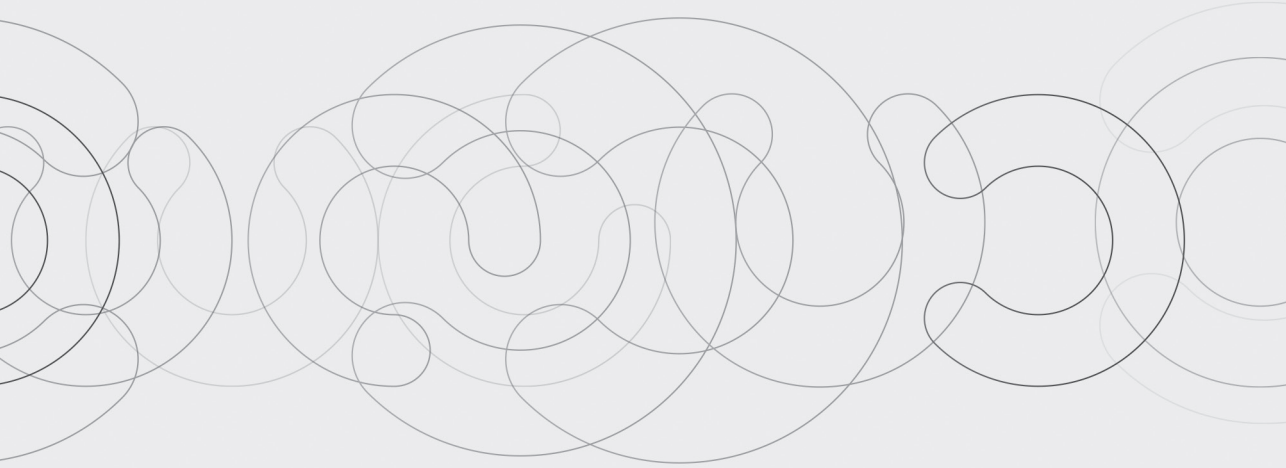
Second, next to the division of labor between partners, the economic hardship that couples face affects their relationship quality. The macro-economic circumstances studied here, specifically, the economic crisis and the flexibilization and globalization of labor markets, affected how satisfied partners were as a couple. This research found that the relationship between partners suffered when they were exposed to economic hardship.

Those who were unemployed or experiencing financial problems reported less satisfaction with their relationship. However, not only did the current situation affect the partner relationship, expectations about the future were also influential. Relationship quality was generally lower among those who felt insecure about future earnings or job position. The consequences of economic trends are not equally distributed across social groups. The lower educated seem especially vulnerable to job insecurity (Berglund & Wallinder, 2015; De Lange, Gesthuizen, & Wolbers, 2012). Moreover, this study found that job insecurity among lower educated couples led to a larger decline in relationship quality than among higher educated couples. The negative consequences of job insecurity for relationships are thus to some extent concentrated among already vulnerable groups. These general conclusions largely mirror the family stress model, which I have extended by including expectations about the future economic situation.

Third, while people become less satisfied with their relationship when they personally have economic problems, the effects of the partner's job position differ between men and women. Women become less satisfied with their relationship if their male partner becomes unemployed or insecure in his job. In contrast, men's perception of the relationship seems less influenced by women's job loss or job insecurity. This suggests that the job position of men is deemed more important than that of women, at least by men. This may be due to men's generally larger financial contribution to the household, which makes their employment more necessary for the financial well-being of the couple. Or it could be linked to gender role attitudes which value men's job position more than women's job position. Hence, male economic dominance and internalized and societal preconceptions of appropriate male and female roles continue to shape work and family relationships today.

Lastly, employment's effects on the partner relationship turned out to be rather universal. Though men's and women's employment affected the partner relationship differently, the associations between employment and relationship satisfaction were largely unaffected by the family context, macro-economic context, and to a lesser extent, by gender role attitudes. The mechanisms therefore seem largely independent of the family and macro-economic context. This is surprising given the large differences between individuals, families, and societies. While these differences affect the prevalence of certain divisions of employment or employment conditions, they do not affect the degree to which employment influences the partner relationship.

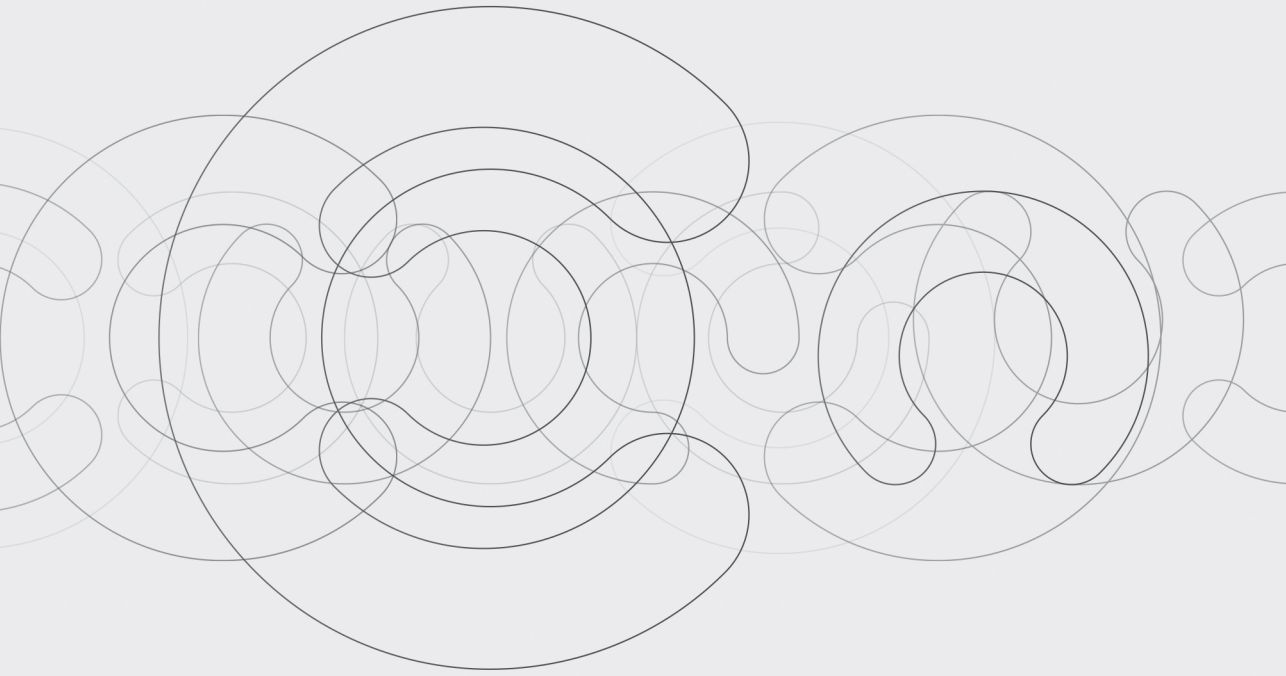
I began this dissertation by asking to what extent employment factors affect the quality of the partner relationship. This research clearly showed that the work domain and the family domain are linked. A couple's division of employment and the economic hardship they face influence the quality of the partner relationship. Employment thereby influences the partner relationship aside from providing financial resources. Particularly, traditional conceptions of gendered behavior continue to play an important role in employment and partner relationships in modern Western societies.



2

Couples' division of employment and household labor and relationship satisfaction.

A test of the specialization and equity hypotheses



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2.1 Introduction and research question

Satisfaction with the partner relationship is key for both personal and children's well-being. To explain satisfaction with partner relationships, researchers have frequently studied the division of employment and household labor within a family (Barstad, 2014; Hardie et al., 2014; Keizer & Schenk, 2012; Kluwer et al., 1996; Oshio, Nozaki, & Kobayashi, 2012; Tai & Baxter, 2018). Especially the ideas of specialization and equity have been frequently linked to relationship satisfaction. Specialization theory states that when women and men specialize in either employment or household labor, household utility is higher (Becker, 1985), which subsequently would lead to more satisfying partner relationships (e.g. Oshio et al., 2012). Equity theory argues that when both partners contribute equitably to the common good (i.e., the family), relationship satisfaction will be higher (Walster et al., 1978; Wilcox & Nock, 2006).

Previous research often studied either couples' division of employment *or* division of household labor. When studying only one of those two domains, equity and specialization represent two extremes of a single dimension: an equal amount of labor is seen as equitable[4], an unequal amount as specialized. Kalmijn and Monden (2011) advocated to study couples' division of employment and household labor simultaneously. Then, equity refers to similarity in the total *time* investments partners make (whether on employment and/or household labor), and specialization explicitly refers to partners performing different *types* of tasks (employment versus household labor). As a result, equity in hours and specialization are no longer simply contrasts. For instance, if one partner spends 40 hours on employment and the other partner spends 40 hours on household labor, the couple can be characterized as highly specialized but also as equitable in time input. In our article, we choose this strategy of studying couples' time division of employment *and* household labor to disentangle equity in hours and specialization.

Prior studies on the association between couples' division of labor and relationship satisfaction provided inconclusive results. Among the studies that focus on the division of *household labor*, some indicated that a traditional division increased happiness and satisfaction with the relationship (Oshio et al., 2012; Wilcox & Nock, 2006), whereas others showed that a more equal division of household labor was related to higher levels of relationship satisfaction (Amato et al., 2003; Barstad, 2014; Oshio et al., 2012; Tai & Baxter, 2018). In research on the division of *employment*, some studies found that an equal division of employment (e.g., dual-earners) fostered relationship satisfaction (Hardie et al., 2014), whereas others found limited (Keizer and Schenk, 2012), or even negative effects (Amato et al., 2003). Defining couples' division of labor based on partners' involvement in both employment and household labor was done by Kalmijn and Monden (2011), but their study focused on mental well-being rather than relationship satisfaction. They found clear

4 Although equity concerns the difference in the outcome-input ratio between partners, we here only study input.

support for the positive influence of equity on mental well-being, but weak evidence was found regarding a positive effect of specialization on well-being.

Additionally, we propose it is important to assess whether the influence of specialization and hours-equity on relationship satisfaction depends on people's preferences and circumstances. Neglecting conditional factors may lead to falsely rejecting specialization or equity hypotheses; a positive effect for a certain group may be counterbalanced by a negative effect for another group. In this contribution, we will therefore assess whether the effect of hours-equity and specialization on relationship satisfaction differs between people with traditional and egalitarian gender role attitudes, and between people with and without young children. Especially gender role attitudes and the presence of children are argued to be influential on people's evaluations of the division of labor (Perales, Baxter, & Tai, 2015).

In sum, our main contribution to the literature of partner's relationship satisfaction is a simultaneous testing of expectations on hours-equity and specialization in the division of employment *and* household labor. Furthermore, we investigate possible moderating influences of gender role attitudes and children in the family. Our research question reads: *To what extent are equity in hours and specialization of employment and household labor between partners related to relationship satisfaction, and to what extent are these associations affected by egalitarian gender role attitudes and the presence of young children?*

To test our expectations we employ information on 21,302 observations of 8,204 respondents in 4,102 relationships from the British Household Panel Survey (BHPS). This provides us with the unique opportunity to include information on both partners' employment and household labor simultaneously.

2.2 Theoretical framework and hypotheses

Before deriving hypotheses, it is important to explicate the difference between specialization and equity in hours. Specialization relates to differentiation in the content of tasks within a family, whereas hours-equity indicates similarity in time both partners devote to family needs. Figure 2.1 illustrates four examples. Example 1 comprises people in couples which are equitable in hours and unspecialized. It refers to situations in which both partners spend a similar amount of time on employment and on household labor. In this illustration, both partners spend the same amount of time *in total* (40 hours) on the family's needs (indicating equity), and the *content* of these efforts are the same in ratio; both partners spend 50% of their total time on employment (indicating unspecialization). Example 2 illustrates couples that are equitable in hours and specialized. While both partners contribute the same amount of time *in total* (indicating equity), the *content* of their time contribution differs (indicating specialization); partner 1 is only engaged in employment while partner 2 is solely involved in household labor. In examples 3 and 4,

the couple is characterized as unequitable, because there is a large difference between both partners in total hours spent on family needs. However, the third example is characterized as unspecialized because both partners spend the same proportion of their total time investments on employment (here, 50%), while in the fourth example these proportions are highly different (100% and 0% employment, respectively), indicating that partners are specialized in the types of tasks they perform.

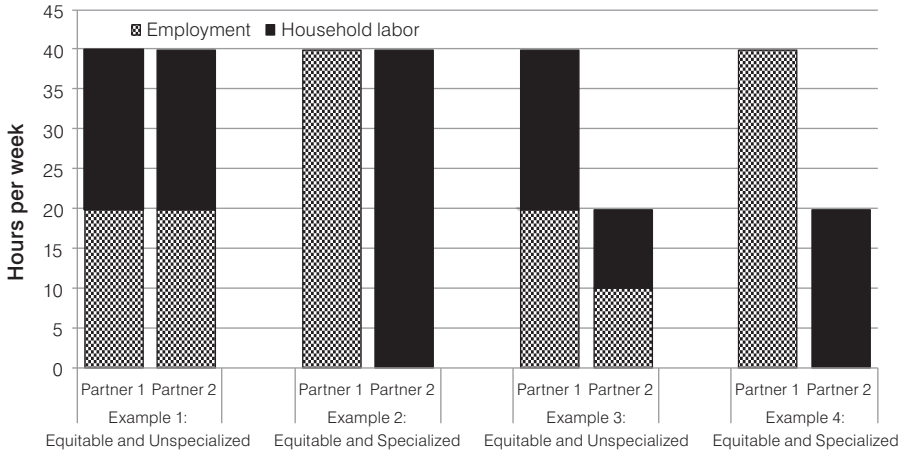


Figure 2.1 Examples to illustrate the difference between specialisation and equity in hours

2.2.1 Specialization and relationship satisfaction: main effects

In this article we derive hypotheses on the influence of specialization on relationship satisfaction based upon the companionate model of marriage, the specialization of marriage theory, and the gender model of marriage.

The idea of companionate marriages highlights that spouses who are both engaged in the labor market and both conduct household labor, share common experiences (Wilcox & Nock, 2006). Around these common experiences, partners build conversations and this increases empathetic and mutual understanding of both positive and negative experiences. Contrarily, conflicts of authority are expected to arise more frequently when people are less equal in labor market involvement or household tasks compared to their partner (Bittman et al., 2003), inducing emotional and social distance (Wilcox & Nock, 2006). Hence, companionate marriages may be characterized by less conflict and higher relationship satisfaction as compared to other types of marriages (Amato, 2012; Wilcox & Dew, 2010). Thus, we expect that: (Hypothesis 1a) *The lower the level of specialization in a family, the higher a person's relationship satisfaction.*

A contrasting expectation is formulated using Becker's specialization of labor theory (Becker, 1981, 1985). The presumption of this theory is that higher levels of specialization in a family result in higher levels of utility since productivity increases with more time investments in a particular task (Becker, 1981, 1985; Kalmijn & Monden, 2011). This point of view seems especially applicable to labor market participation: specialization in paid labor will result in higher hourly wages and a higher occupational status (Bardasi & Taylor, 2008), which are important economic factors for a couple. Via the reduction of financial strain, income is positively related to people's satisfaction with the partner relationship (Conger et al., 2010; Hardie et al., 2014; Oshio et al., 2012). This efficiency argument may hold for household labor as well; increased engagement in household labor may lead to a more efficient, well-organized household. In sum, specialization is believed to increase the gains of a relationship (Becker, 1985) since partners produce complementary goods. Therefore, our contrasting hypothesis reads: (Hypothesis 1b) *The higher the level of specialization of a couple, the higher a person's relationship satisfaction.*

2.2.2 Specialization and relationship satisfaction: conditional effects

The contrasting hypotheses formulated above could both find support, because they likely apply to different people. In principle, both companionate marriage theory and specialization theory are gender-blind; specialization would have the same impact no matter whether it is a man or a woman who specializes in paid employment. Contrastingly, the gender model of marriage highlights the gendered roles of men and women in society (Wilcox & Nock, 2006). This theory implies that people are socialized to 'do gender': To behave in accordance with gender stereotypes, which would be consistently reaffirmed during the life course (Leaper & Friedman, 2007; West & Zimmerman, 1987). From these notions it follows that both men and women are internally and externally motivated to act gender-typically within a partner relationship (Wilcox & Nock, 2006). Obviously, gender role attitudes shape couples' division of labor as partners will try to work out an arrangement that matches their attitudes (Hengstebeck et al., 2014). However, a couple's division of labor may deviate from their preferences due to existing constraints. This tension between the preferred and the actual situation could result in lower satisfaction with the partner relationship. Accordingly, specialization in a family may be more positively related to relationship satisfaction if this situation corresponds to a person's attitudes towards this division[5]. People with more traditional gender role attitudes likely prefer a more specialized division, with the female partner as homemaker, and the male partner as breadwinner, while egalitarian gender role attitudes emphasize that men and women should share both paid and household labor (Constantin & Voicu, 2015; Greenstein, 2009). So we expect people to be more satisfied with their partner

5 Note that our argument assumes that specialized couples follow the traditional gendered division of labour. Although our measurement of specialization is gender-blind, we checked whether results differed between traditional and non-traditional specialization in the robustness analyses.

relationship when specialization in the division of labor corresponds with their attitudes towards this division. We therefore hypothesize: (Hypothesis 2) *For people with egalitarian gender role attitudes the influence of specialization of a couple on a person's relationship satisfaction is more negative (or less positive) than for people with traditional gender role attitudes.*

Next, the presence of young children may influence how specialization relates to relationship satisfaction. Evaluations of the division of labor change with the birth of a child (Perales et al., 2015). Research showed that after the birth of a child, both men and women are more likely to emphasize motherhood as women's key role (Baxter et al., 2014). This implies that a specialized division of labor in which the wife takes up the caring tasks (and the husband employment) matches parents' preferences more strongly than childless couples' preferences. In addition, one could argue that the efficient character of specialization (increased productivity with increasing time investments in a particular task; Becker, 1985) seems especially valuable in times of stress and high family demands. Because of these arguments we expect: (Hypothesis 3) *For people with young children the influence of specialization of a couple on a person's relationship satisfaction is more positive (or less negative) than for people without young children.*

2.2.3 Equity in hours and relationship satisfaction: main effects

Next to specialization, hours-equity within couples is expected to associate with relationship satisfaction. Note that equity is not the same as equality; where the latter focuses on sameness, the first is about fairness. Regarding equity, Walster et al. (1978) argue that people evaluate the efforts they put into a relationship and compare them to the results of these efforts. People compare this input-output ratio to their partner's, and if these ratios differ they will perceive such a division as unfair (Sprecher, 2001a; Walster et al., 1978). This imbalance is assumed to make people anxious, leading to lower levels of relationship satisfaction. Moreover, partners who find themselves in inequitable arrangements are likely motivated to gain or restore equity (Walster et al., 1978). This may result in negotiation processes between partners inducing possible conflicts (Kalmijn & Monden, 2011). Here we only focus on the input people make in terms of time involved in employment and household labor. Similar to research that focuses on the division of household labor, it is assumed that time-imbalances induce feelings of unfairness over this division (Jansen, Weber, Kraaykamp, & Verbakel, 2016).

In principle, two types of imbalance may be distinguished, under-benefiting (contributing more than the partner) and over-benefiting (contributing less than the partner) (Walster et al., 1978). Previous research indicated that people who under-benefit become more frustrated and angry, use more destructive and anti-social emotional expressions, and perceive more sadness (Guerrero et al., 2008; Sprecher, 2001a). Over-benefiting is associated with feelings of guilt (Sprecher, 2001a), and with using more prosocial and antisocial emotional expressions (Guerrero et al., 2008). Subsequently, both

under-benefiting and over-benefiting may lead to lower levels of relationship satisfaction (Guerrero et al., 2008). We expect: (Hypothesis 4) *The higher the level of hours-equity of a couple, the higher a person's relationship satisfaction.*

2.2.4 Equity in hours and relationship satisfaction: conditional effects

People do not perceive all arrangements with dissimilar time-investments as unfair to the same degree (Tai & Baxter, 2018). Distributive justice theory indicates that perceived fairness of a division of family work is shaped by outcomes, comparisons, and justifications (Thompson, 1991). People with more traditional gender role attitudes are likely more supportive of an unequal division of household labour and employment between partners (Constantin & Voicu, 2015; Davis & Greenstein, 2009). Due to socialization, unequal contributions in specific domains are perceived as legitimate by more traditional partners. In contrast, egalitarian gender role attitudes encompass the ideal of an equal sharing of employment and household labour between men and women (Constantin & Voicu, 2015; Davis & Greenstein, 2009). To our opinion this ideal may go beyond the specific division of tasks, but is also related to the general (equitable) contribution partners make. An inequitable division of labour between partners defies this ideal, for then partners do not make equal efforts to their household. Hence, people with more egalitarian gender role attitudes will oppose inequitable partner arrangements more often. Thus we hypothesize: (Hypothesis 5) *For people with egalitarian gender role attitudes the influence of hours-equity of a couple on a person's relationship satisfaction is more positive than for people with traditional gender role attitudes.*

Lastly, hours-inequity may be more detrimental for relationship satisfaction under certain circumstances. Especially under the conditions of stress and time pressure, someone may be more annoyed by a partner's lack of contribution to the family. Young children in the household incite difficulties in combining work and family life (Van der Lippe, Jager, & Kops, 2006). Therefore, the presence of young children could strengthen feelings of unfairness in inequitable couples, which in turn lowers relationship satisfaction. Furthermore, the welcoming of children may instigate a re-evaluation of earlier agreements between partners; because new activities and labor such as childcare and cleaning are required (Keizer & Schenk, 2012), a revision of the previously agreed-on division of tasks is likely needed as well. This re-evaluation may create a new awareness regarding the (un)fairness of the division of family and work obligations (Perales et al., 2015), which may reduce relationship satisfaction (Barstad, 2014). We hypothesize that: (Hypothesis 6) *For people with children the influence of hours-equity of a couple on a person's relationship satisfaction is more positive than for people without children.*

2.3 Data and method

2.3.1 Data

To test our hypotheses, we employed the British Household Panel Survey (BHPS). This annual panel survey has been held since 1991. All members of over 5,000 households were interviewed and re-interviewed in subsequent years (Taylor, Brice, Buck, & Prentice-Lane, 2010). In situations where households split-up (divorce, leaving the parental home), all members of newly formed household were interviewed as well. The BHPS sample was extended in 1999 with Scottish and Welsh households and in 2001 with Northern Irish households (Taylor et al., 2010). For further information on BHPS, see https://www.iser.essex.ac.uk/bhps.

Information on relationship satisfaction has been included in the survey since wave 1996 onwards, with the exception of wave 2001. Questions on gender role attitudes have been asked in uneven years only (i.e., 1997, 1999 and so on). Since in our panel design independent variables are used to explain variation in relationship satisfaction in the next year, we used the 1997, 1999, 2003, 2005 and 2007 BHPS waves to construct independent variables (T-1 years) and the subsequent years to measure relationship satisfaction (T years). We restrict our analytic sample to individuals living in different-sex relationships who cohabit with their partner in year T-1, leading to 46,468 observations. We excluded observations in which a respondent and his/her partner were not living in the same household in the subsequent wave or if this was unknown (5.7 percent); a respondent did not participate in both subsequent years (3.5 percent); or the partner did not participate in both years (7.9 percent). Our research interest focused on people of working age. We therefore excluded observations of respondents or partners younger than 25 years or older than 60 years of age (32.5 percent). Observations with missing values on relationship satisfaction at time-point T or T-1 were omitted (8.4 percent). Missing values were primarily on relationship-duration, household income, education, and gender role attitudes[6]. Observations with missing values on independent variables were excluded (2.7 percent) as well as observations with missing information on partner's characteristics (6.4 percent). Furthermore, 644 (2.9 percent) respondents reported on different partners during the course of the BHPS due to divorce or separation and subsequent repartnering. To ensure adequate nesting, these observations were excluded. After these selections, we estimated models with 21,302 observations of 8,204 respondents in 4,102 relationships.

2.3.2 Measurements

Our dependent variable, *relationship satisfaction,* was measured by asking people how satisfied they are with their husband, wife or partner. The scale ranged from one ('not satisfied at all') to seven ('completely satisfied'). Although one-item measurements of

6 Missing values on education and household income were imputed with the values of the previous or subsequent wave. Duration of the partner relationship was imputed using multiple imputation with age of both partners, marital status, and age of the youngest child.

relationship satisfaction are obviously less reliable than multiple item scales, this and similar single item measures has been frequently used in prior research (e.g. Hardie et al., 2014; Keizer & Schenk, 2012). The distribution of relationship satisfaction was highly skewed with a mean of 6.25. Therefore, an exponential transformation was applied ($e^{\text{Relationship satisfaction}}$).

Specialization and *hours-equity* were based on employment hours and hours spent on household labor. Employment hours were measured by summing the answers to the questions 'thinking about your (main) job, how many hours, excluding overtime and meal breaks, are you expected to work in a normal week?' and 'how many hours overtime do you usually work in a normal week?'. The variable household labor hours was measured by asking respondents 'about how many hours do you spend on housework in an average week, such as time spent cooking, cleaning and doing the laundry?' To construct *specialization* and *hours-equity* four aspects were used, namely men's employment hours (E_M), men's household labor hours (H_M), women's employment hours (E_W), and women's household labor hours (H_W). Following Kalmijn and Monden (2011), the concepts of specialization and hours-equity in the household were measured as:

$$\text{Specialization} = \left| \left(E_M / (E_M + H_M)\right) - \left(E_W / (E_W + H_W)\right) \right|$$
$$\text{Hours-equity} = 1 - \left| (E_M + H_M) - (E_W + H_W) \right| / (E_M + H_M + E_W + H_W)$$

Specialization is a dissimilarity index, 0 meaning no specialization at all, and 1 the maximum level of specialization. The measurement of *hours-equity* represents relative similarity in hours engaged in both types of labor, 0 representing no hours-equity, 1 full hours-equity. For people who were not employed, the number of hours engaged in employment was set to .01 (close to zero), allowing us to compute levels of specialization for them as well. In our sample the correlation between hours-equity and specialization was -0.380. Figure 2.2 shows a scatter plot of observed couples by hours-equity and specialization. For each quadrant, the number of cases is provided. This figure shows that equitable, unspecialized couples were most common in our sample (upper left quadrant; N = 5,682). These are couples in which both partners are relatively similar in the total number of hours they spend as well as in the content of their contribution. Least common were couples who divide employment and household labor in an unspecialized and unequitable manner (lower left quadrant; N = 1,052). The upper right quadrant comprises couples who divide labor in a specialized and equitable manner (N = 1,960). In these couples, partners contribute a relatively similar amount of time to the total household needs, but whereas one partner spends his/her time primarily on household labor, the other spends it mostly on employment. Our sample included a similar amount of couples who are characterized as being specialized and unequitable (lower right quadrant; N = 1,955). In these couples, one partner contributes relatively much more time towards the needs of the household than the other, and the types of tasks they perform differs strongly too.

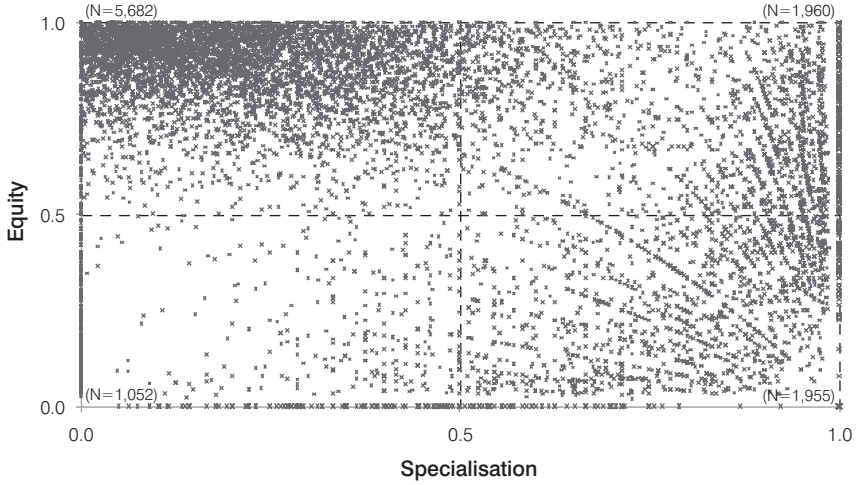


Figure 2.2 Scatter plot of hours-equity and specialisation, the number of household-observations are provided per quadrant

It is important to emphasize that our specialization and hours-equity indices are only based on partners' time investments in employment and household labor; another highly relevant element of a households' divisions of labor - time spent on childcare - is unavailable in the BHPS data. One could argue that especially female hours will be underestimated by this omission, and hence that our specialization and equity indices may be biased. Information on the actual division of childcare[7] among BHPS couples revealed that in the majority of couples, childcare is indeed mainly performed by women (62.2 percent versus 2.8 percent mainly by men and 35.0 percent jointly). Furthermore, we found that couples, in which women contributed most to childcare, were more specialized and less equitable than couples who divided childcare jointly. If we assume that specialized couples in our sample were predominantly 'traditionally specialized couples' (i.e., male employment and female household work), our measure of specialization excluding childcare can be expected to be underestimated. Whether our equity measure will be underestimated or overestimated depends on whether it was the man or the woman who contributed more hours according to our original measure. However, it seems a plausible assumption that the relatively low levels of hours-equity in couples with the woman as main provider of childcare were due to the underestimation of female hours; hence, if we could include the hours spent on childcare, equity levels would probably be higher. How this may affect our results is discussed in our robustness checks.

7 Based on the question: "Who is mainly responsible for looking after the child(ren)?" We distinguished mainly the mother; jointly; mainly the father.

Gender role attitudes were measured using two statements, namely 'A pre-school child is likely to suffer if his or her mother works' and 'All in all, family life suffers when the woman has a full-time job'. Answer categories ranged from one ('strongly agree') to five ('strongly disagree'). Together, these questions indicated the level of disagreement with the traditional family model involving a male breadwinner and female homemaker (Constantin & Voicu, 2015). The variables constituted a reliable scale ($\alpha = .832$). We averaged the two items to construct a scale with higher scores representing egalitarian gender roles (a missing value on one item was allowed).

The presence of children in the household was measured with dummy variables: 'no children', 'youngest child 0 to 4 years old', 'youngest child 5 to 11 years old', 'youngest child 12 to 18 years old'. This categorization corresponded with our theoretical mechanism regarding the care-dependency of children in a family.

Individual-level controls included in this study were *relationship satisfaction in the previous wave, age* (categories 25 to 34 years, 35 to 44 years, and 45 to 60 years to account for non-linearity), *educational attainment* (ISCED-classification), and *health problems or disabilities* of both partners (no, one, two or more health problems or disabilities, for example high blood pressure, depression, alcohol, arthritis). The relationship-level controls included *marital status* (0 = married, 1 = cohabiting), and *duration of the (cohabiting) partner relationship* in years (Pronzato, 2011), imputed with partner's duration score when missing. When relationship duration as reported by the respondent differed from that of the partner, mean values were taken. Other control variables were *relationship duration squared*, *household income* (sum of total annual earnings before taxes, indexed per wave in deciles), and *total hours of household labor and employment* of the two individuals. The latter was included to account for the fact that the hours-equity measure is affected by the size of the denominator, i.e., couples' total hours of employment and household labor. Conclusions did not alter when total hours of employment and the total hours of household labor were included separately. All continuous variables were mean-centered. Table 2.1 shows the descriptive statistics of all variables.

2.3.3 Analytical strategy

The dataset was organized in a 'standard reciprocal pairwise' design, indicating that both the respondent and the partner were included, allowing the incorporation of individual, partner and relationship characteristics (Kenny, Kashy, & Cook, 2006). This dyadic structure was combined with a person-period-file structure, to account for multiple observations of individuals. As a result each line in the dataset represented one observation of a respondent. In each line, characteristics of the respondent, the partner and the relationship at that particular time point were recorded. Our model was a small adaptation to Kenny's et. al. (2006) model for dyadic longitudinal data, and was computed using the MIXED procedure in SPSS.

Table 2.1 Descriptive statistics for women, men, and couples

		Women		Men		Couples	
		(N = 10,651)		(N = 10,651)		(N = 10,651)	
	Range	Mean/%	SD	Mean/%	SD	Mean/%	SD
Relationship satisfaction	1-7	6.18	1.16	6.32	1.03		
Relationship sat. t-1	1-7	6.23	1.13	6.35	1.00		
Relationship sat. (exp)	2.27-1096.63	711.40	425.59	756.34	409.04		
Relationship sat. t-1 (exp)	2.27-1096.63	732.92	420.52	771.14	404.13		
Employment hours	0-100	21.75	17.70	32.35	21.62		
Household chores hours	0-99	17.25	11.07	5.42	5.59		
Education	1-7	3.73	1.69	3.83	1.70		
Age							
25 to 34	0-1	30.49		24.06			
35 to 44	0-1	34.48		34.80			
45 to 60	0-1	35.04		41.14			
Egalitarian gender role atti.	1-5	3.13	0.99	2.94	0.95		
Health problem or disability							
None	0-1	43.33		49.76			
One	0-1	30.01		29.72			
Several	0-1	26.66		20.52			
Partner health problem or disability							
None	0-1	49.76		43.33			
One	0-1	29.72		30.01			
Several	0-1	20.52		26.66			
Specialization	0-1					0.66	0.31
Equity	0-1					0.41	0.35
Total hours (employment + household labor)	2-233					76.77	29.51
Relationship duration (in years)	0.08-41.92					12.01	9.71
Household income	1-10					5.50	2.87
Marital status							
Married	0-1					85.81	
Cohabiting	0-1					14.19	
Children in the household							
None	0-1					44.17	
Youngest child 0-4	0-1					19.19	
Youngest child 5-11	0-1					23.63	
Youngest child 12-18	0-1					13.00	

Source: BHPS 1997-2008. The total of N = 21,302 (10,561 female and 10,561 male) observations are nested in N = 8,204 respondents and in N = 10,561 relationship observations of N = 4,102 couples

One of the issues with dyadic data is the violation of the independence assumption. In our case, it means that relationship satisfaction of a respondent will be more similar to that of the partner than to that of a random individual. In the BHPS data, respondents' relationship satisfaction was correlated 0.331 to their partners' relationship satisfaction. We explicitly included in the model the covariance between respondent's and partner's relationship satisfaction to account for the fact that unobserved circumstances may affect partners alike. Another violation of the independence assumption refers to the longitudinal aspect of the data, namely that the data contain on average 2.6 observations per individual. To account for unmeasured time-constant individual characteristics that may affect relationship satisfaction, a random intercept per person was included.

Lastly, previous research showed that effects of predictors on relationship satisfaction differ between men and women (Hardie et al., 2014). We therefore estimated a two-intercept model where coefficients were calculated separately for men and women. Actually, this model is similar to a model for men and women separately, but it takes into account the covariance between partners' relationship satisfaction. In additional analyses differences between men and women were tested. Significant ($p<0.05$) differences are indicated by bold in Table 2.2 and 2.3. Model statistics are shown in Appendix 2 Table A2.1

2.4 Results

2.4.1 Main effects of specialization and equity on relationship satisfaction

Table 2.2 shows the main effects of specialization and equity without (Model 1) and with (Model 2) control variables. No direct effects of specialization and equity on relationship satisfaction could be observed for both men and women. So, no support was found for hypotheses 1a, 1b, and 4.

We will briefly discuss the results regarding the control variables. First, couples' total hours of employment and household labor, and household income appeared not to be related to relationship satisfaction. Relationship duration had a curvilinear effect: partner satisfaction decreased with rising relationship duration, but this effect levelled off. Furthermore, people who cohabited were less satisfied with their relationship than their married counterparts. People were less satisfied with the partner relationship when underage children were present in the household. We also observed that the higher educated were less satisfied with their relationship than lower educated people. Men (but not women) aged 45 to 60 reported more relationship satisfaction as compared to younger men. An egalitarian gender role attitude did not affect a person's relationship satisfaction directly. Personal health problems or disabilities showed to be unrelated to relationship satisfaction. Lastly, both men and women were less satisfied with their relationship when their partner had health problems or disabilities.

2.4.2 Conditional effects of specialization and equity: gender role attitudes

Interaction effects between specialization and modern gender role attitudes are displayed in Table 2.3 (Model 3). For men, egalitarian gender role attitudes significantly moderated the association between specialization in family obligations and relationship satisfaction (b = -24.525). The more egalitarian men's gender role attitudes, the more strongly specialization reduced relationship satisfaction. Our findings therefore supported Hypothesis 2 for men. If men's attitudes align with their actual situation, they are more satisfied with their relationship. Surprisingly, this moderation was not found for women.

In Table 2.3 (Model 4) results are shown regarding the moderating influence of gender role attitudes on the link between hours-equity and relationship satisfaction. For men, the significant interaction effect (b = 32.682) indicates that egalitarian gender role attitudes among men indeed led to a more positive association between hours-equity and relationship satisfaction. Apparently, more egalitarian men valued equity in household obligations more highly than traditional men, which caused them to experience more satisfaction with their relationship. This finding was in line with Hypothesis 4. Again, this conditional effect was not found for women. Note that the differences between men and women in the interaction effects were not statistically significant.

2.4.3 Conditional effects of specialization and equity: young children

Interaction effects regarding the presence of young children are presented in the lower panel of Table 2.3. Models 5 show that the presence of pre-school children did not affect how specialization influences relationship satisfaction of both men and women. Also, for both men and women, the presence of young children did not affect the association between equity in the family and relationship satisfaction (Models 6).

In sum, it seems that only men's and not women's relationship satisfaction was affected by the division of tasks in the family, but only under certain conditions; it depended on men's gender role attitudes, but not on the presence of children.

2.4.4 Robustness analyses

We performed several robustness checks to assess whether certain decisions and data limitations affected our conclusions. First, we investigated whether our results were robust for not including childcare in our measurements of specialization and hours-equity, which was not possible with the data used. One could argue that the bias in our specialization and hours-equity measures were strongest for couples with children, and more particularly, young children as they are generally more time-consuming. Therefore, we conducted separate analyses for (1) couples with and without children and (2) couples with varying ages of their youngest child (see Appendix 2 Table A2.2 and A2.3). The effects of hours-equity and specialization on relationship satisfaction as well as the moderating effect of gender role attitudes did not seem to differ between people with and without children and not between couples with varying ages of their youngest child. The results provided

Table 2.2 The influence of specialization and equity on relationship satisfaction

	Men				Women			
	Model 1		Model 2		Model 1		Model 2	
	B	SE	B	SE	B	SE	B	SE
Couple characteristics								
Specialization	-16.014	11.610	-4.852	10.710	-6.310	12.218	-2.968	10.948
Equity	-13.925	13.609	-8.921	15.493	9.854	14.295	-24.075	15.757
Total hours (employment + household labor)			0.242	0.164			0.259	0.167
Income			-1.029	1.465			2.328	1.470
Relationship duration			-6.003 ***	1.445			-5.022 **	1.523
Relationship duration squared			0.154 ***	0.042			0.125 **	0.043
Marital status (ref.=married)								
Cohabiting			-42.035 ***	10.856			-36.033 ***	10.948
Children in household (ref.=none)								
Youngest child 0-4			-53.812 ***	10.482			-40.122 ***	10.866
Youngest child 5-11			-34.147 ***	9.839			-36.627 ***	10.181
Youngest child 12-18			-44.472 ***	10.586			-52.348 ***	11.016
Individual characteristics								
Relationship satisfaction t-1			**0.442 *** **	**0.008**			**0.493 *** **	**0.008**
Education			-10.644 ***	2.476			-11.004 ***	2.490
Age (ref.=25 to 34)								
35 to 44			8.881	9.313			1.904	9.236
45 to 60			35.908 **	11.392			15.836	11.642
Egalitarian gender role attitudes			-0.969	3.742			0.672	3.606
Health problem or disability (ref.=none)								
One			-11.548	7.713			-4.288	8.020
Several			-7.694	9.498			-16.467	8.959
Partner illness or disability (ref.=none)								
One			-3.349	7.836			4.619	7.873
Several			-21.456 *	8.830			-24.199 *	9.607
Intercept	759.411 ***	5.635	732.827 ***	16.548	712.578 ***	5.840	718.936 ***	16.520

Source: BHPS 1997-2008. * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.05) differences between men and women. Results based on two intercept model; N = 21,302 observations nested in 8,204 respondents

similar conclusions, therefore suggesting that our conclusions were relatively robust.

Second, to check whether the absence of the main effect of specialization may be due to the fact that for some couples, a specialized division of labor could be forced upon by undesirable circumstances (such as unemployment or disability), we applied several sample restrictions to exclude potential 'undesired' specialized couples: (a) we limited our sample to couples in which both partners were employed, homemaker, or on maternity leave, and (b) we only selected couples with a total number of work hours of at least 35 hours a week. These robustness analyses (shown in Appendix 2 Table A2.4 and A2.5) did not lead to other conclusions.

Third, we differentiated our gender-blind specialization measure into non-traditional specialization (men spending relatively less time on employment than their spouse) from traditional specialization (see Appendix 2 Table A2.6). Also, these analyses indicated no differences in the influence of specialization on relationship satisfaction between these groups. Furthermore, we differentiated under-benefiting from over-benefiting in hours-equity. The results (shown in Appendix 2 Table A2.7) indicated that both had similar effects on relationship satisfaction.

Fourth, we addressed the skewed distribution of relationship satisfaction by dichotomizing relationship satisfaction (non-satisfied versus satisfied). The logistic analyses provided similar conclusions (see Appendix 2 Table A2.8).

Lastly, to investigate potential selectivity of relatively satisfied couples in our sample, we examined whether couples who did and did not separate in the course of the BHPS data collection differed in hours-equity and specialization, which was not the case (see Appendix 2 Table A2.9). Also, the influence of equity and specialization on relationship satisfaction did not differ by whether a couple broke up during the observation period (see Appendix 2 Table A2.10).

Overall, our main conclusion from all checks presented above was that the results presented in Tables 2.2 and 2.3 were fairly robust.

Table 2.3 The influence of specialization and equity on relationship satisfaction dependent on gender role attitudes and children in the household

	Men							
	Model 3		Model 4		Model 5		Model 6	
	B	SE	B	SE	B	SE	B	SE
Specialization	-10.594	10.945	-0.738	10.796	-15.246	15.464	-3.703	10.785
Equity	-11.987	15.536	-1.204	15.701	-10.780	15.572	-0.088	19.502
Egalitarian gender role attitudes	-0.861	3.742	-0.854	3.742	-0.743	3.750	-0.875	3.747
Children in household (ref.=none)								
Youngest child 0-4	-54.327 ***	10.480	-54.613 ***	10.481	-53.138 ***	10.528	-53.454 ***	10.490
Youngest child 5-11	-34.230 ***	9.835	-34.356 ***	9.835	-34.405 ***	9.862	-33.954 ***	9.844
Youngest child 12-18	-44.417 ***	10.582	-44.409 ***	10.581	-44.365 ***	10.603	-44.260 ***	10.588
Interactions								
Specialization*Egalitarian gender role attitudes	-24.525 *	9.699						
Equity*Egalitarian gender role attitudes			32.682 **	10.944				
Specialization * Youngest child 0-4					14.343	24.762		
Specialization * Youngest child 5-11					39.666	24.462		
Specialization * Youngest child 12-18					-19.262	30.468		
Equity * Youngest child 0-4							-6.856	29.352
Equity * Youngest child 5-11							-36.106	26.804
Equity * Youngest child 12-18							7.028	30.501

	Women											
	Model 3			Model 4			Model 5			Model 6		
	B		SE	B		SE	B		SE	B		SE
Specialization	-3.192		10.957	-1.510		11.041	-3.824		15.841	-1.653		11.025
Equity	-24.632		15.803	-23.937		15.758	-24.352		15.841	-11.825		19.907
Egalitarian gender role attitudes (EGRA)	0.702		3.606	0.738		3.608	0.719		3.615	0.740		3.611
Children in household (ref.=none)												
Youngest child 0-4	-40.287	***	10.872	-40.411	***	10.870	-40.785	***	10.918	-39.433	***	10.875
Youngest child 5-11	-36.643	***	10.181	-36.774	***	10.183	-36.182	***	10.209	-36.482	***	10.186
Youngest child 12-18	-52.291	***	11.015	-52.335	***	11.015	-52.258	***	11.034	-52.216	***	11.015
Interactions												
Specialization*Egalitarian gender role attitudes	-4.896		9.551									
Equity*Egalitarian gender role attitudes				12.159		10.776						
Specialization * Youngest child 0-4							13.544		25.454			
Specialization * Youngest child 5-11							-10.659		25.155			
Specialization * Youngest child 12-18							1.579		31.449			
Equity * Youngest child 0-4										8.556		30.133
Equity * Youngest child 5-11										-50.760		27.477
Equity * Youngest child 12-18										-14.063		31.426

Source: BHPS 1997-2008. * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.05) differences between men and women. Results based on two intercept model; N = 21,302 observations nested in 8,204 respondents. Models are controlled for all other variables listed in Table 2

2.5 Conclusion and discussion

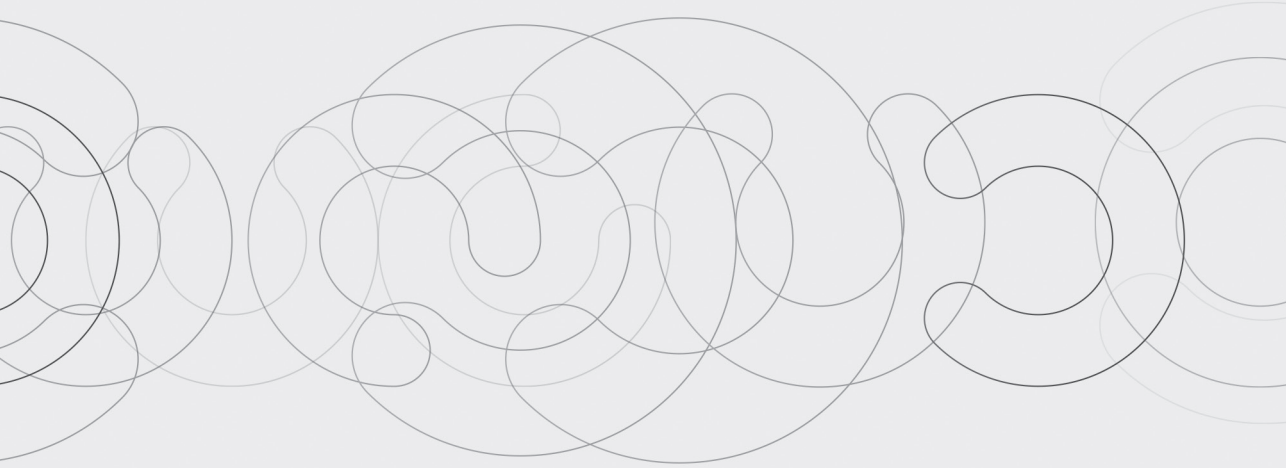
This study investigated the association between relationship satisfaction and the division of employment and household labor in a family. Previous research has frequently applied the concepts of equity and specialization to deal with family obligations. Whereas equity in hours implies that both partners contribute a similar amount of time to the family's needs, specialization indicates a division in the type of tasks (Kalmijn & Monden, 2011). Moreover, we assessed whether the effects of hours-equity and specialization were conditional on preferences and circumstances, in particular on gender role attitudes and the presence of children in the household.

A first relevant finding was that no universal, direct association was found between specialization and hours-equity on the one hand and relationship satisfaction on the other hand, in contrast to findings on specialization, equity, and well-being (Kalmijn & Monden, 2011). However, we did find support for the claim that specialization and hours-equity are beneficial or detrimental for relationship satisfaction for men under some conditions. Compared to men with traditional gender role attitudes, egalitarian men were found to be less satisfied when the couples' division of labor was more specialized and inequitable. These findings suggested that if couples' division of tasks is in accordance with men's preferences, men experience more satisfaction with their partner relationship. In contrast to our expectations, our results showed that specialization was not more strongly positively linked to relationship satisfaction when children were involved than when no young children were present. Importantly, we found no influence of hours-equity and specialization on women's relationship satisfaction. Therefore, future research may want to search for other conditional factors affecting this relationship, especially for women. The fact that only men seemed affected by the family's level of hours-equity and specialization (conditional on gender role attitudes), suggests that women's satisfaction with the partner relationship is less influenced by a family's division of tasks than men's. This is in line with Kalmijn and Monden (2011), who found stronger effects of equity and specialization on well-being for men than for women. The distributive justice framework argues that women do not always perceive an inequitable division of labor as unfair, since perceiving a division as unfair is shaped by the valued outcomes, comparison referents, and justifications (Thompson, 1991). Perhaps a preliminary answer to our puzzling finding that women were not affected by the division of labour, is that women do not compare their partner's input to their own, but to the input of other men.

This study employed a strong longitudinal and dyadic design. Nevertheless, there were drawbacks. First, relationship satisfaction was only measured with a single item. Yet, relationship satisfaction may hold various dimensions. Future research preferably should employ a broader definition of relationship satisfaction. This could also solve the issue of the skewed dependent variable, which can only be partly resolved by using an exponential transformation. Second, we could not take childcare into account in our definition of

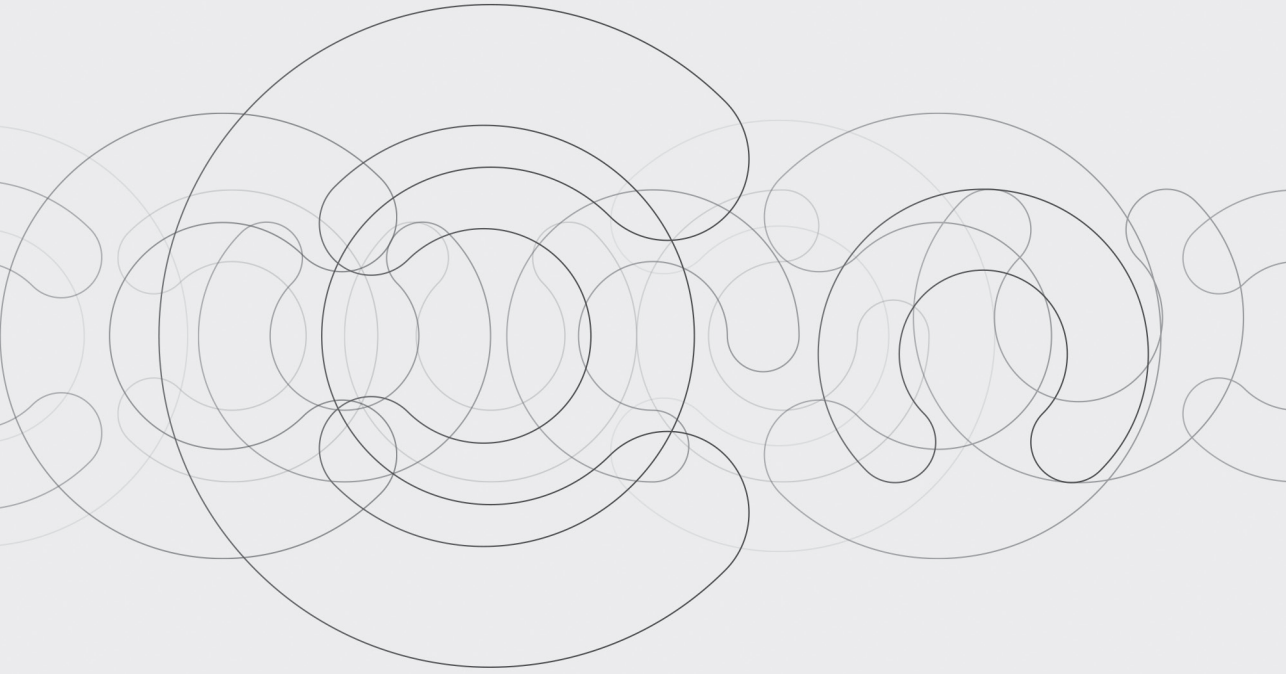
specialization and hours-equity, while this is an important and salient part of the division of tasks between partners (Kluwer, 2011). By not including childcare the levels of hours-equity and specialization were possibly underestimated, potentially biasing our results. While our robustness checks for this omission did not indicate strong bias, we strongly recommend future research to take childcare obligations into account. In addition, our measurements of hours-equity and specialization may have been affected by the use of general time assessments instead of time-diary data since especially traditional men tend to overestimate their time spent on household labor (Kan, 2007; Schulz & Grunow, 2012). Furthermore, couples value domestic work and employment differently, where employment presumably provides more benefits than domestic labor. Different valuation of household tasks versus employment did not influence the association between hours-equity, specialization, and well-being (Kalmijn & Monden, 2011), but it could nevertheless affect their associations with relationship satisfaction. Lastly, while we use a unidimensional concept of gender role attitudes, gender role ideology have been argued to be a multidimensional concept (Grunow, Begall, & Buchler; 2018). Incorporating multidimensional concepts of gender role attitudes could provide further insights on the moderating influence of gender role attitudes on the relationship the division of labor and relationship outcomes.

Overall, our study clearly highlights the importance of assessing conditional factors. Insignificant main results could be due to opposing effects of specialization or hours-equity for specific groups. In our case, men's relationship satisfaction benefited from hours-equity and unspecialization especially when they held egalitarian gender attitudes.



3

Female breadwinners and relationship satisfaction. Longitudinal comparisons with equal-earners and male breadwinners.



* A slightly different version is currently under review at an international journal.
Co-author is Belinda Hewitt.

3.1 Introduction and research question

3.1.1 Introduction and research question

Women's increased participation in the labor market has undermined the male breadwinner model of family life. Even though men continue to earn more than women on average, in most developed countries a significant minority of women are now the primary breadwinner. Recent studies suggest that in about 25 percent of all couples in the USA and Australia women earn more than their male partner (Drago, Black, & Wooden, 2005; Wang et al., 2013; Winkler et al., 2005), and in Europe this percentage ranges from about 15 percent in Austria, the Czech Republic, and Italy up to more than 30 percent in Lithuania and Slovenia (among women aged 25 to 45 Klesment & Van Bavel, 2017). While women's secondary work often improves the financial well-being and stability of dual-earner households (Oppenheimer, 1997; Rogers, 2004), female breadwinner households pose more fundamental challenges to traditional gendered expectations within couple relationships and may therefore have different implications for the quality and stability of the partner relationship.

According to previous research, men and women in female breadwinner couples are less satisfied or happy with their partner relationships (e.g. Bertrand et al., 2015). However, these studies have generally disregarded the circumstances that led to being a female breadwinner couple, which is either that the couple take a gender-equal approach to their relationship, which may be positively associated with relationship quality, or, more often, that the male partner is unable to work due to unemployment or illness, which may have negative consequences for relationship quality (Drago et al., 2005; Kramer & Kramer, 2016). Overlooking the factors which led to a certain arrangement, could lead to misstate the negative associations of being in a female breadwinner household found in previous research.

This study aims to broaden our understanding of female breadwinners by investigating the question: *To what extent do people in female breadwinner arrangements differ in relationship satisfaction from when they were in other arrangements and does this differ depending on gender role attitudes?* We excluded same-sex couples and by female-breadwinner household we specifically refer to those households where the female partner earns the majority of household income or is the single-earner (and vice versa for male breadwinner households). We use 15 waves of panel data from the Household, Income and Labour Dynamics in Australia survey (HILDA, melbourneinstitute.unimelb.edu.au/hilda) and estimate fixed effects models because we are interested in differences between breadwinner arrangements over time. We examine relationship satisfaction which concerns people's cognitive evaluation of how happy or satisfied they are in their partner relationship and is a widely used concept for studying relationship quality (Helms, 2013).

3.1.2 Background

Breadwinning in the previous research literature has mostly been defined as being the sole or dominant earner in a household who typically works full time (Chesley, 2017). From this definition both employment status and income should be taken into consideration when studying breadwinning. Throughout this paper breadwinner-couples are defined as couples where one person provides the majority of household income or is the single-earner (Chesley, 2017). However, the majority of previous research only examines earnings, with few studies taking into account employment status. To our knowledge no previous research has incorporated both income and employment status into their definition of household breadwinning. This may be problematic because any possible negative effect of income differences on relationship quality could be due to one partner not working as well as, or instead of, differences in income. In this study we incorporate both dimensions of breadwinning into a breadwinning-typology. By simultaneously studying both aspects, we aim to further disentangle the mechanisms that affect the quality of the partner relationship.

Income is of course one of the main benefits from employment. People who have a higher income than their partner have more power in the relationship and more independence from the relationship (Oppenheimer, 1997; Rogers, 2004). An emerging body of research has examined the differences in relationship quality for those in female breadwinner arrangements compared to those in more traditional arrangements, mostly in the USA. The majority of studies that defined breadwinning in terms of earnings or income found that people in relationships where the woman out-earned her male partner had poorer relationship outcomes, including lower levels of marital happiness (Bertrand et al., 2015; Wilcox & Nock, 2006; Zhang, 2015), poorer marital (role) quality (Brennan et al., 2001) and higher levels of intimate partner violence (Atkinson, Greenstein, & Lang, 2005). Although the majority of breadwinner research has examined American couples, Zhang (2015) also found poorer outcomes for Chinese female breadwinner couples, who had lower marital happiness and greater marital instability. Of the research reviewed, no studies found positive associations between female breadwinner households and relationship quality, but some research found no associations (Furdyna et al., 2008; Gong, 2007). The sole longitudinal study indicated that changes in household earnings and breadwinning status was associated with relationship conflict, but being in a stable female breadwinner household was not (Winslow, 2011).

Although these studies used diverse measurements of income, their conclusions seem relatively similar. Some used labor earnings (Brennan et al., 2001; Wilcox & Nock, 2006), while others used income from both labor and other sources (Furdyna et al., 2008; Gong, 2007; Zhang, 2015). Related research indicates the importance of incorporating several forms of income and to use income after taxes (Van Bavel & Klesment, 2017). Different forms of 'earned' (e.g. wages, business income) and 'unearned' income (e.g. public transfers, investments) are included since these comprise one's contribution to the

household. Income after taxes may be especially important since the income after taxes is what people contribute to the household, determines their prosperity, and is possibly the income one compares to the partner's contribution, and changes in tax policies are taken into account.

Aside from providing income, employment provides several benefits such as a sense of purpose and identity (Paul & Moser, 2009). However, few studies examined breadwinning in terms of employment status and relationship quality, and the conclusions were not very consistent. For instance, Gong (2007) found among American couples that women (but not men) reported a lower quality of partner relationship when they were employed for more hours than their male partner. Franklin and Menaker (2014), on the other hand, showed that intimate partner violence was more prevalent in American households where both partners worked compared to couples where only one (either the man or woman) was employed. Their study suggests that having a primary worker in a household, irrespective of whether it is the female or male partner, reduced intimate partner violence.

The consequences of becoming a female breadwinner couple could depend on the gender role attitudes men and women have (although not all studies found this moderating effect (Brennan et al., 2001; Gong, 2007; Zhang, 2015)). While some couples form female breadwinner household because of egalitarian attitudes, others become so due to economic problems (Drago et al., 2005; Kramer & Kramer, 2016). These groups can be differentiated by looking at one's gender role attitudes (Drago et al., 2005). Several studies (who studied income/earnings differences) found that being a female breadwinner couple was associated with lower relationship quality for people with more traditional gender role values (Atkinson et al., 2005; Coughlin & Wade, 2012; Furdyna et al., 2008; Zhang, 2015). Hence, people who transition to a female breadwinner arrangement may become especially less satisfied when they have more traditional gender role values, while it has no or less influence on egalitarian people.

Almost no previous studies have examined the associations between female breadwinning and relationship quality from a longitudinal perspective (Winslow, 2011). This is important, because after a change in breadwinning arrangements couples have to renegotiate a new division of household labor (Baxter & Hewitt, 2013). This may cause more stress and strain on the relationship in the short term, which is likely to diminish over time. In addition, some people may terminate the relationship because of changes in breadwinning and the associated strain in the partner relationship (Kalmijn et al., 2007) and these couples would not be captured by the cross-sectional analysis. The selection of relatively satisfied couples could bias the results in especially cross-sectional studies. Thereby the extant literature on female breadwinning may underestimate the impact for relationship quality, especially for couples who become a female breadwinner out of financial necessity. Therefore, we use longitudinal panel data.

Furthermore, as noted before, the majority of the discussed literature used American data from the late 1980's to mid-1990's (e.g. Bertrand et al., 2015; Brennan et al., 2001). In this

paper we investigated female breadwinners and relationships satisfaction among Australian couples between 2001 and 2015. Previous research has shown that Australia has a strong male breadwinner culture and division of household labor (Baxter & Hewitt, 2013; Bittman et al., 2003). This is predominantly underpinned by labor market conditions and cultural attitudes towards parenting (Craig & Mullan, 2011). Women's overall labor market participation in Australia is about the OECD average (OECD, 2018), but the majority of Australian women work part-time, particularly when they have young children (Australian Bureau of Statistics (ABS), 2017). In addition to working part-time a significant proportion of Australian women leave the workforce after having children, between 2001 and 2015 women aged 25 – 44 were around three times more likely than men to be out of the labor force (ABS, 2017). Major labor market reforms, such as the introduction of near-universal paid parental leave in 2011, have resulted in some small improvements in mothers' return to work and labor market engagement after birth (Martin et al., 2015). Nevertheless, women in their childbearing years are far less likely to be in the labor force than men (ABS, 2017).

In addition to examining the Australian context, our study builds on the previous research in several important ways. First, we incorporate both income and employment status into our definition of household breadwinning. We further differentiate whether one or both partners are not working due to unemployment or home duties. Second, we use a longitudinal household panel to investigate changes in household arrangements instead of contrasting stable household arrangements, and account for selective factors that are stable over time. Third, we investigate whether changing to a female breadwinner household was less influential for people's relationship satisfaction when they have more egalitarian gender role attitudes.

3.2 Theoretical framework and hypotheses

A longitudinal perspective of change in relationship satisfaction may be fruitful in guiding our hypotheses. According to adaption theory, important life events may affect relationship satisfaction and well-being, at least in the short-term (Luhmann et al., 2012). For example, unemployment or loss of income could induce hostile communication between partners (Rao, 2017; Sherman, 2017), while becoming a dual-earner could enhance financial stability and therefore improve relationship well-being (Oppenheimer, 1997; Rogers, 2004). Hence, we assume that changes in breadwinning arrangements within couples can trigger a re-evaluation and reappraisal of the relationship (Kalmijn et al., 2007; Rao, 2017), which underpins our hypotheses below.

There are several theoretical traditions that explain why differences between spouses in income and employment status may be associated with relationship satisfaction; including the household specialization of labor theory (Becker 1981, 1985), relative resource or bargaining perspectives (Blood & Wolfe, 1960), the role collaboration and companionate

model of marriage perspectives (Rogers, 2004; Wilcox & Nock, 2006), and the doing gender perspective (West & Zimmerman, 1987). The household specialization of labor perspective argues that household utility and productivity is highest when one partner specializes in employment and the other in home duties (Becker, 1981, 1985). The allocation of household labor is based on each partner's comparative advantage in the labor market (Becker, 1981, 1985). This theory suggests that more specialized division of labor within the couple would result in a better functioning household with less financial difficulties and stress, and hence induce relationship satisfaction (see Chapter 2). Indeed, research suggests that men and women in the more specialized single-earner couples experience less time pressure and less work-family conflict than dual-earner couples (Craig & Mullan, 2009), although this is not always found (Byron, 2005). More complementary roles could therefore increase relationship satisfaction.

The basic principle of specialization is gender neutral, namely that when tasks are divided between partners, the partner relationship is better (Kalmijn et al., 2007). However, because women generally earn less than men and are often disadvantaged in the labor market, and have (according to Becker) an competitive advantage in unpaid family labor, they are more often allocated the role of home duties and caregiving in specialized households (Becker, 1985). Although female breadwinner couples generally have a lower income (Winslow-Bowe, 2006), due to the gender pay-gap and male unemployment, if we take the decline in income into account, the benefits from specialization should come afore. If specialization is beneficial regardless of who is the breadwinner, people in male or female breadwinner couples would be similarly satisfied with the partner relationship. Assuming that changes in breadwinning can impact relationship satisfaction we would expect: (Hypothesis 1a) *Men and women who change to a female or male breadwinner household will have higher levels of relationship satisfaction than when they were in an equal earner household.*

The relative resource or bargaining perspectives have also been posed to explain people's behavior in a couple, influencing the quality of the partner relationship (Brines, 1994; Rogers, 2004). These perspectives argue that power within intimate relationships is based on the different economic resources each partner brings to the relationship (Blood & Wolfe, 1960). This power can be used to avoid or 'buy out' unpleasant tasks and to negotiate more favorable conditions. Hence, one with more resources relative to his or her partner is able to define the conditions of the relationship more in accordance with his or her wishes. Income and employment are important sources of power within couples. One with higher income or who is employed while the partner is not, have more power within the couple, enabling them to better negotiate a satisfying partner relationship. These perspectives have been primarily used to study the division of household labor between partners, but other negotiations could be subject to the differences in power as well. Yet despite the fact that female breadwinners have more power than their partner, these women do more household labor relative to their partner compared to equal-earner

couples (Baxter & Hewitt, 2013; Bittman et al., 2003). Nevertheless, female breadwinner women may still be able to determine other decisions, making the relationship more suited to their wishes than their partners. Hence, we would expect: (Hypothesis 1b) *Women who change to a female breadwinner household will have higher levels of relationship satisfaction than when they were in an equal earner or male breadwinner household, while men become less satisfied with the partner relationship.*

In contrast to the specialization theory and bargain perspectives, both the companionate model of marriage and role collaboration perspectives argue that partners will be more satisfied with their relationship when they share tasks and engage in more similar activities (Rogers, 2004; Wilcox & Nock, 2006). The companionate model of marriage emphasizes that the blurring of traditional gender roles leads to more emotional intimacy between partners, and stands in contrast to earlier institutional models of marriage (Burgess et al., 1963). Shared experiences, such as experiences in the labor market, the reduction or elimination of patriarchal authority and power, and more possibilities for men's emotion work, would lead to more understanding and emotional intimacy between partners (Burgess et al., 1963; Wilcox & Nock, 2006). The role collaboration perspective posits that when the resources and contributions are more equal between partners, partners have more common experiences, such as employment, and divide less enjoyable tasks more equitable, increasing the affection between partners (Rogers, 2004). Equal resources lead to more equal power within the relationship, making the outcomes of negotiations between partners (such as household labor) more equitable, inducing relationship quality (Brines & Joyner, 1999; Risman & Johnson-Sumerford, 1998). Thus, the companionate model of marriage and role collaboration perspectives suggest that if partners engage in similar labor activities, the commonly shared positive and negative experiences foster empathy, mutual understanding, and collaboration. This in turn improves satisfaction with the relationship implying that dual-earner couples are more satisfied with the relationship than people in both male and female breadwinner couples. Therefore we would expect that: (Hypothesis 1c) *Men and women who change to a female or male breadwinner household will have lower levels of relationship satisfaction than when they were in an equal earner household.*

The doing gender perspective emphasizes gender relations, which may be important for female breadwinner arrangements. According to the doing gender perspective, gender is constructed through social interactions which reaffirm gender and gendered expectations (West & Zimmerman, 1987). People and their behavior are evaluated according to these gendered accountability structures and deviations are discouraged through internal and external pressures. While influential, the doing gender perspective has been criticized for not sufficiently taking human agency and resistance towards gender expectations into account (Connell, 2010; Deutsch, 2007). This may be important when studying female breadwinners, since some couples become a female breadwinner couple because they defy traditional gender role expectations about separate life spheres

(Drago et al., 2005; Kramer & Kramer, 2016). However, within different-sex couples men's masculinity and identity continues to be strongly tied to being the household breadwinner (Townsend, 2002), and women's identity to care work and mothering (Johnston & Swanson, 2006). These traditional ideals of masculinity and femininity are challenged when a household diverts from a male breadwinner arrangement (Coughlin & Wade, 2012; Franklin & Menaker, 2014; Sherman, 2017). The inconsistency between being male but not fulfilling the provider role is in contrast with gendered expectations. This could diminish men's self-worth and simultaneously reduce women's regard for their partner, reducing both men and women's satisfaction with the relationship (Rao, 2017; Sherman, 2017). Hence, becoming a female breadwinner couple may be negatively associated with relationship quality compared to being an equal earner couple, because a female breadwinner arrangement is more divergent from the masculine ideal. Therefore, we would expect: (Hypothesis 1d) *Men and women who change to a female breadwinner household will have lower levels of relationship satisfaction than when they were in an equal earner or male breadwinner household.*

Not everyone adheres to the traditional gender roles emphasized in the doing gender theory to the same degree, and as indicated earlier this may be important for reactions to changes in breadwinning arrangements. Gender role attitudes are a frame of reference with which people judge the division of labor between partners (Hengstebeck et al., 2014). Some female breadwinner couples are formed due to gender egalitarian ideology, whereas others become so because of men's employment difficulties (Drago et al., 2005; Kramer & Kramer, 2016). Even though gender role attitudes may shape the couples' division of labor, people may deviate from these preferences due to constraints, such as employment opportunities (Drago et al., 2005; Kramer & Kramer, 2016). When people deviate more from their preferred division of labor, they may become more dissatisfied with their relationship (see also Chapter 2). People who are traditional in their gender role attitudes likely find becoming a female breadwinner couple contrasts more strongly with their beliefs than people with egalitarian attitudes (Coughlin & Wade, 2012). In contrast to people with more egalitarian ideologies, more traditional people may feel uncomfortable with female breadwinner arrangements compared to equal earner or male breadwinner arrangements, reducing their relationship satisfaction. Hence, our second hypothesis reads: (Hypothesis 2) *The more traditional one's gender role attitudes, the more becoming in a female breadwinner household will lower one's level of relationship satisfaction.*

As mentioned previously, our definition of breadwinning distinguishes between single earners, dual-earners with unequal income, and dual-earners with relatively equal income. We would expect that differences in relationship satisfaction will be more prominent between single-earner couples and dual-earners with equal income than between dual-earners with unequal income and dual-earners with an equal income. This because differences in the level of specialization, role collaboration, and gender typical

behavior (the driving forces behind our hypotheses) will be more prominent between the former than between the latter.

3.3 Data and method

3.3.1 Data

We used 15 waves of the HILDA survey to test our hypotheses. The HILDA survey is an annual household panel survey where the same people were surveyed which began with a national probability sample of Australian private households in 2001. This formed the basis of the panel and was gradually extended to include any new household members. The sample was replenished in Wave 11 to retain cross-sectional representativeness. The household response rate was 66 percent in Wave 1 (Wooden & Watson, 2002). Within households, data were collected from all household members over age 15 using face-to-face interviews, phone-interviews and self-completed questionnaires, with a response rate of 92.3 percent in Wave 1 (Wooden & Watson, 2002). The wave-on-wave response rates ranged from 86.9 (Wave 2) to 97.0 percent (main sample Wave 15). Attrition was higher among people who were younger, born in a non-English speaking country, Aboriginal or Torres Strait Islander, single, unemployed, or among people who worked in lower-skilled occupations (Summerfield et al., 2016).

Of the initial 217,917 observations, we selected observations of people in a relationship who were living with a partner, with or without children, and who lived without others (for instance parents) (N = 126,161). Our operationalization of breadwinner households, described in detail below, used information from both partners, we therefore restricted the analytic sample to couples where both partners responded in a certain wave (N = 119,742), and were in a different-sex relationship (excluding 1,339 observations). We then selected couples where both partners were of working age (ages 25 to 60 to deal with selective entry and exit of the labor force) (N = 79,798), but could be either employed, unemployed, or not in the labor force due to being a homemaker, ill or disabled, or a full time caregiver for an ill or disabled person (N = 75,726). Of the remaining respondents, 474 individuals separated and subsequently repartnered, which causes nesting issues. We selected the observations of the first observed partners of these individuals, and excluded the observations of these individuals with subsequent partners (2,048 observations). This selection criterion kept couples which dissolved over time in our sample, reducing selectivity bias of highly satisfied couples. We also exclude 6,163 observations with missing values on the dependent variable, mostly by not completing the self-completion questionnaire. After these selections, our sample consisted of 67,515 observations (33,300 for men, 34,215 for women), of 11,890 people (5,878 men, 6,012 women) in 6,260 relationships. The average number of wave-observations was 5.7 per person for both men and women (see Table 3.1). The data were largely balanced, but in

some instances only one partner was included, mostly due to a missing value of the other partner on the dependent variable. Missing values of the independent variables were imputed in Stata with truncated multiple imputation methods (5 datasets) using gender, (partner's) age, and the variables described in Table 3.1 using a long format where we imputed missing values (amount shown in Table 3.1), but not whole-wave missing data (Young & Johnson, 2015).

3.3.2 Measurements

Relationship satisfaction was measured using the question **"**How satisfied are you with your relationship with your partner?" which was asked in the self-completion questionnaire. The scale ranged from zero ('completely dissatisfied') to ten ('completely satisfied'). See Table 3.1 for descriptive statistics of all variables. Although single-item measurements are less reliable than multiple-item scales, this and similar questions are widely used as indicators of relationship satisfaction (e.g. Hardie et al., 2014).

Breadwinning was derived from several variables. First, based on individual responses to the main daily activity, we first coded whether people were employed, unable to work (Kramer & Kramer, 2016), or a homemaker (primarily responsible home duties, child care or looking after an ill or disabled person). If both partners were employed, we used people's income to determine who earned more in a couple which were grouped in the following categories; woman earned less than 40 percent of the couple's income, both earned about equal percent (both contribute between 40 and 60 percent), or woman earned 60 percent or more of the couple's income (Winslow, 2011; Zhang, 2015). Income was based on the disposable income earned over the previous financial year, including wages and salary, business income, investments, and benefits, minus the estimated taxes, as recommended by Van Bavel and Klesment (2017) (see Summerfield et al., 2016 for the calculation). Our *breadwinning arrangement* typology comprised eight categories taking into account income contribution and employment status. We identified two groups of equal earners, (1) couples where both partners were employed and earned approximately similar income or (2) couples where neither partner was employed. Three groups of male breadwinner couples were identified, (3) both partners were employed, but man earned more than his partner, (4) man was employed and his partner was unable to work, and (5) man was employed and his partner was a homemaker. Lastly, female breadwinner couples were categorized as (6) both partners were employed, but woman earned more than her partner (7) woman was employed and her partner was unable to work due to unemployment or illness, (8) woman was employed and her partner was a homemaker. Changes in the household breadwinner can therefore be due to men's or women's change in labor force participation and loss or gain in income. Hence, a couple may have transferred to a female breadwinner arrangement when she started earning more, when he experienced a decline in income, or when he became unable to work or a homemaker.

Table 3.1 Descriptive statistics before mean centering

			Men		Women	
			(N = 33,300)		(N = 34,215)	
	Number of values imputed	Range	Mean/%	SD	Mean/%	SD
Relationship satisfaction	0	0-10	8.36	1.80	8.16	1.95
Breadwinner						
Equal earner						
Equal earnings, both employed	0	0-1	30.43		30.33	
Both not employed	0	0-1	3.20		3.19	
Male breadwinner						
Both employed, man earned more	0	0-1	35.46		35.57	
Man empl., woman unable to work	0	0-1	3.47		3.52	
Man employed, woman homemaker	0	0-1	16.59		16.55	
Female breadwinner						
Both empl. woman earned more	0	0-1	7.96		7.92	
Woman empl., man unable to work	0	0-1	2.22		2.25	
Woman empl., man homemaker	0	0-1	0.67		0.68	
Egalitarian gender role attitudes	1,156	-2.049-1.048	0.00	0.58	0.16	0.59
Couple's work hours	145	0-224	66.72	25.24	66.86	25.32
Household labor hours	1,121	0-128	6.28	6.17	18.13	13.16
Men's share of household labor	3,734	0-1	0.28	0.22	0.28	0.22
Financial prosperity	289	1-6	3.87	0.77	3.90	0.76
Household income (log)	0	0-14.209	11.27	0.69	11.28	0.69
Married *(ref.=cohabiting)*	0	0-1	81.86		81.60	
Number of children aged 0-4	0	0-4	0.37	0.68	0.37	0.68
Number of children aged 5-9	0	0-4	0.35	0.65	0.35	0.65
Number of children aged 10-14	0	0-5	0.35	0.66	0.35	0.66
Number of children aged 15-24	0	0-5	0.26	0.57	0.26	0.57
Self-rated general health	714	1-5	3.48	0.89	3.55	0.89
Partner's self-rated general health	2393	1-5	3.55	0.89	3.48	0.88
			Men		**Women**	
			(N = 5,878)		(N = 6,012)	
			Mean	SD	Mean	SD
Number of observations		1-15	5.67	4.41	5.69	4.41

Source: HILDA 2001-2015

Egalitarian gender role attitudes were measured using two items which indicated adherence to the male breadwinner ideology. While gender role ideologies are multidimensional (Grunow et al., 2018), many previous studies used unidimensional scales. We used two questions specifically about adherence to the male breadwinner ideology to investigate this specific part of gender role attitudes which could be argued to be most critical for our hypotheses: "It is better for everyone involved if the man earns the money and the woman takes care of the home and children" and "children do just as well if the mother earns the money and the father cares for the home and the children". The answer categories ranged from one ('strongly disagree') to seven ('strongly agree'). We generated a scale using Principle Factor Analysis, the factor loadings were -0.62 and 0.62 respectively. Higher scores on the scale indicate more egalitarian gender role attitudes regarding breadwinning. Questions on gender role attitudes were only asked in waves 1, 5, 8, 11, 15. We averaged all known scores to provide a non-varying indicator for gender role attitudes to ease interpretation of the interaction-coefficients.

We controlled for several variables. *Couple's joint labor market hours, household income* (logged), and *subjective financial prosperity* were controlled for. The latter was measured by a question indicating how prosperous a person felt his or her household was given their current needs and financial responsibilities, ranging from one ('very poor') to six ('prosperous'). These variables were included to control for possible (subjective) economic changes associated with becoming a female breadwinner. This ensures that effects of breadwinning do not represent objective or subjective effects of economic hardship. Our overall conclusions were similar when we did not include these control variables, but without controls men unable to work were marginally ($p<.10$) less satisfied with their relationship. In addition, we controlled for *marital status* (married versus cohabiting relationship), *number of dependent children* (aged 0 to 4, 5 to 9, 10 to 14, and 15 to 24), *self-assessed general health* (ranging one 'poor' to five 'excellent'), and *partner's self-assessed general health* (also ranging one 'poor' to five 'excellent'), which may be important confounding variables as suggested by previous literature. Lastly, we controlled for *the number of hours per week a person spent on household labor and men's share of household labor.* This was derived from a question asking how much time each partner spent on household labor in a typical week. Men's share of household labor was calculated by dividing his contribution by sum of both partners' contribution. Information about a person's partner (on their employment hours, income, health, and household labor) were asked directly to the partner, which avoids selective under- or over-reporting of the partner's characteristics.

3.3.3 Analytical strategy

We used fixed effects models in Stata to test our hypotheses. These analyses study the within-person variation and avoid bias due to time-invariant factors, although bias to unobserved time-variant factors is possible (Allison, 2009) (see Appendix 3 A3.1 for the

changes in relationship satisfaction and breadwinner arrangements). Fixed effects models have the advantage of modelling changes instead of levels, which could take into account over- or underreporting of relationship satisfaction (Hardie et al., 2014). Essentially the models are difference models wherein the scores are the within individual differences averaged over all respondents who were observed in each type of arrangement. The first difference scores are the differences between an individuals' level of relationship satisfaction when they were in one breadwinner arrangement compared to when they changed into another breadwinner arrangement. The models only take into account people who change and the 'direction' of change is not taken into account. Instead, the differences between the same individual in each state is investigated. The models also take into account any unmeasured factors that remain stable over time, for example country of birth. Thus they account for selection of people into the various breadwinning arrangements based on unmeasured characteristics over time that remain stable, however, they do not account for selection of unmeasured factors that may change over time. Variances are clustered in individuals using the Huber and White or sandwich estimator. The analyses were unweighted.

The analyses were conducted separately for men (Table 3.2) and women (Table 3.3), and we also estimated the three models with gender interactions with all variables, and significant differences between men and women are indicated by bold coefficients in Tables 3.2, 3.3 and 3.4. To test Hypotheses 1a-c, Model 1 (Table 3.2 and 3.3) studied breadwinner arrangements without taking any other variables into account, and in Model 2 (Table 3.2 and 3.3) we added the control variables. In Model 3 in Table 3.4 we tested Hypothesis 2 by including interactions between breadwinner arrangements and gender role attitudes.

Our hypotheses were concerned with differences between two pairs of breadwinner arrangements, the first concerned the difference in relationship satisfaction between equal earner and female breadwinner arrangements, and the second concerned the difference in relationship satisfaction between male breadwinner and female breadwinner arrangements. To formally test this, every model is run twice with different reference groups; the first using equal earner couples where both partners were employed as the reference group (in Models 1a to 3a) and for the second male breadwinner households where both partner were employed and the male partner earned more (in Models 1b to 3b) as the reference group. The equal earner and male breadwinner categories represented the more dominant breadwinning arrangements within households and were chosen because of the relatively large number of transitions with female breadwinner arrangements.

3.4 Results

3.4.1 Relationship satisfaction and female breadwinners arrangements

The results from our fixed effects panel analyses for men are shown in Table 3.2. We start with discussing the results for men. The results of Model 1a for men suggest that men became marginally ($p<0.1$) less satisfied with the relationship when both partners were employed but the female partner earned more (b = -0.064) compared to when they were in an equal earner arrangement (both employed). This difference remained and increased in significance when the control variables were included in Model 2a (b = -0.079). Model 1a also showed that men became less satisfied with the relationship when they transitioned to a female breadwinner arrangement where the woman was employed and he was unable to work (b = -0.225) compared to when they were in an equal earner arrangement. This difference was no longer significant when we took the control variables into account in Model 2a; especially the couple's combined work hours, household income, and financial prosperity explained this difference.

The results showed largely similar findings when we compared men in female breadwinner arrangements to men in male breadwinner arrangement in Models 1b and 2b in Table 3.2. While the association in Model 1b was not significant, including the control variables in Model 2b showed that men became less satisfied with the relationship when his partner earned more than him, compared to when he out-earned her (b = -0.084). Men became also less satisfied with the relationship when the woman was employed and the man was unable to work (b = -0.203, in Model 1b) compared to when they were in a male breadwinner arrangement where both were employed, but the man earned more than the woman. This difference was no longer significant when we included the couple's work hours, income, and financial prosperity in Model 2b. Notably, men's relationship satisfaction did not differ significantly between an equal earner or male breadwinner arrangement and couples where women were employed and men were the homemaker.

For women, the results in Table 3.3 in Model 1a showed that women became (marginally ($p<.10$)) less satisfied with the relationship when they changed to an arrangement where both partners were employed, but she earned more than her partner compared to when they were in an equal earner arrangement, with both partners employed (b = -0.071). This difference increased in significance when the control variables were included in Model 2a (b = -0.099). Also, women became less satisfied when they were employed, but the man was unable to work, than when in an equal earner couple, where both partners were employed (b = -0.339) in Model 1a. This difference decreased in size when the control variables were included in Model 2a, but remained significant (b = -0.256). Women who transitioned from an equal earner arrangement (both employed) to a female breadwinner arrangement where she was employed and he was the homemaker did not change significantly in their relationship satisfaction.

Model 1b for women showed that women became less satisfied with the relationship when they transitioned to an arrangement where she was employed and their male partner was unable to work compared to when they were in a male breadwinner arrangement (both partners employed, man earned more) (b = -0.247). The magnitude of this association reduced but remained significant (b = -0.213) when we took the control variables into account in Model 2b. Women who started earning more than their partners were not less satisfied compared to when they were in a male breadwinner arrangement (both partners employed, man earned more). Also, women who changed to a female breadwinner/male homemaker arrangement were not less satisfied compared to when they were in male breadwinner arrangements.

The association between changes in breadwinning arrangements and relationships satisfaction were largely similar between men and women, since the coefficients for female breadwinner arrangements did not differ significantly between men and women. Additionally, the models revealed that differences between men when in an equal-earner compared to a male-breadwinner arrangement were not related to changes in relationship satisfaction when the control variables were taken into account. There was one important exception; we consistently found that men and women became more satisfied with the relationship when they were in a male breadwinner arrangement where he was employed and she was a homemaker.

The results of Models 2a and 2b are summarized in Figure 3.1. The results largely confirmed Hypothesis 1c for men and women, in which we expected that people who transitioned to a female breadwinner arrangements would be less satisfied with the partner relationship than when they were in equal earner or male breadwinner arrangements. The negative association between men's unemployment and men's and (to a lesser degree) women's relationship satisfaction seems partly driven by financial and economic circumstances. The fact that we did not find a significant difference for women in a female breadwinner/male homemaker arrangement may be in part due to the small number of households with this arrangement (see Table A3.1 in Appendix 3). However, the coefficient was positive for men and women when the control variables were taken into account, which suggests that men and women in female breadwinner/male homemaker arrangements were probably not *less* satisfied in their relationship than when they were in other arrangements.

Our results also suggested that some of the control variables were important. Relationship satisfaction rose higher with higher levels of financial prosperity and income, and better health of the respondent or their partner. Men became slightly less satisfied with the relationship as their household labor increased, but this was not associated with women's satisfaction. Changes in the division of household labor or the number of work hours were not related to changes in relationship satisfaction. People who married or had (older) children were less satisfied with their relationship.

Table 3.3 shows the results of the model examining the moderation effect of gender role attitudes on the association between differences in household breadwinner arrangements and differences in relationship satisfaction. None of the interactions between gender role attitudes and female breadwinner arrangements were significant for men or women. Hence, the associations between changes in female breadwinner arrangement and changes in relationship satisfaction seem equally applicable for people with more egalitarian and traditional gender role attitudes. Hence, we found little support for Hypothesis 2, our results did not indicate that gender role attitudes are important for the associations between breadwinner household and relationship satisfaction. This is in contrast to previous research (e.g. Furdyna et al., 2008), but in line with others (e.g. Gong, 2007).

3.4.2 Robustness analyses

We conducted several checks for robustness. First, previous research mainly used relative income to define breadwinner arrangements without taking employment arrangements into account (Wilcox & Nock, 2006; Winslow, 2011; Zhang, 2015), while others used only employment arrangements (e.g. Franklin & Menaker, 2014). Comparing the results of these approaches (see Appendix 3 Table A3.2 and A3.3) with our approach suggested that these other approach may have led to a slight overestimation of the influence of relative income on relationship satisfaction for women, and a small underestimation for men, while the employment measure led to relatively similar conclusions.

Second, in our main analyses we defined the category 'both partners were employed, but woman earned more than her partner' as couple where she earned more than 60 percent of the household income. However, other studies used a 50 percent cutoff point for relative household income (e.g. Klesment & Van Bavel, 2017). The results are largely similar when we also used this 50 percent cutoff point (see Appendix 3 Table A3.4 and A3.5). An exception was that men who transitioned to arrrangments where both partners were employed but women where the main provider did not differ in relationship satisfaction from when they were in an male breadwinner arrangement (both employed, man earned more). This indicated that especially a larger income difference was negatively linked to men's satisfaction.

Third, we investigated income differences by studying difference in (gross) hourly wage to take the differences in employment hours into account (results shown in Appendix 3 Table A3.6 and A3.7. The results were very similar for men. The results differed slightly for women; women did not become less satisfied with the relationship when they started earning more than their male partner compared to when they both earned approximately the same.

Lastly, some significant results in Table 3.2 and 3.3 for both men and women were found with female breadwinner households where the male partner was not working. This category included men who were unemployed and not working due to illness or disability (Kramer & Kramer, 2016). We undertook additional analysis to determine whether

Table 3.2 Fixed effects regressions analysis of men's relationship satisfaction and female breadwinner

	Men							
	Model 1a		Model 2a		Model 1b		Model 2b	
	(ref: equal earner)				(ref: male earns more)			
	B	SE	B	SE	B	SE	B	SE
Breadwinner								
Equal earner								
Equal earnings, both employed	Ref.		Ref.		**0.023**	**0.025**	-0.005	0.025
Both not employed	-0.010	0.097	0.112	0.104	0.012	0.096	0.106	0.102
Male breadwinner								
Both employed, man earned more	**-0.023**	**0.025**	0.005	0.025	Ref.		Ref.	
Man employed woman unable to work	-0.081	0.059	-0.037	0.059	-0.058	0.056	-0.042	0.056
Man employed woman homemaker	0.096 *	0.038	0.119 **	0.042	0.118 ***	0.034	0.114 **	0.036
Female breadwinner								
Both employed woman earned more	-0.064 #	0.038	-0.079 *	0.038	-0.041	0.042	-0.084 *	0.042
Woman employed, man unable to work	-0.225 **	0.082	-0.097	0.084	-0.203 *	0.081	-0.103	0.083
Woman employed man homemaker	-0.070	0.170	0.077	0.172	-0.048	0.170	0.072	0.172
Couple's work hours			0.001	0.001			0.001	0.001
Household labor hours			-0.005 #	0.003			-0.005 #	0.003
Men's share of household labor			-0.081	0.071			-0.081	0.071
Financial prosperity			0.135 ***	0.018			0.135 ***	0.018
Household income (log)			-0.096 ***	0.018			-0.096 ***	0.018
Married *(ref.=cohabiting)*			-0.220 ***	0.045			-0.220 ***	0.045
Number of children aged 0-4			-0.077 ***	0.023			-0.077 ***	0.023
Number of children aged 5-9			-0.125 ***	0.024			-0.125 ***	0.024
Number of children aged 10-14			**-0.118** ***	**0.022**			**-0.118** ***	**0.022**
Number of children aged 15-24			-0.186 ***	0.024			-0.186 ***	0.024
Self-rated general health			**0.165** ***	**0.016**			**0.165** ***	**0.016**
Partner's self-rated general health			0.100 ***	0.015			0.100 ***	0.015
Constant	8.364 ***	0.017	8.498 ***	0.044	8.341 ***	0.014	8.504 ***	0.044
Sigma u	1.565		1.531		1.565		1.531	
Sigma e	1.218		1.204		1.218		1.204	

Note: Couple's work hours, household labor hours, financial prosperity, men's share of household labor, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

Table 3.3 Fixed effects regressions analysis of women's relationship satisfaction and female breadwinner

	Women							
	Model 1a		Model 2a		Model 1b		Model 2b	
	(ref: equal earner)				(ref: male earns more)			
	B	SE	B	SE	B	SE	B	SE
Breadwinner								
Equal earner								
Equal earnings, both employed	Ref.		Ref.		**0.092** ***	**0.028**	0.044	0.027
Both not employed	-0.240 *	0.108	-0.121	0.118	-0.148	0.107	-0.077	0.115
Male breadwinner								
Both employed, man earned more	**-0.092** ***	**0.028**	-0.044	0.027	Ref.		Ref.	
Man employed woman unable to work	-0.126 #	0.067	-0.044	0.070	-0.034	0.063	0.000	0.066
Man employed woman homemaker	0.079 #	0.043	0.134 **	0.046	0.171 ***	0.037	0.178 ***	0.040
Female breadwinner								
Both employed woman earned more	-0.071 #	0.039	-0.099 **	0.039	0.021	0.042	-0.056	0.042
Woman employed man unable to work	-0.339 ***	0.089	-0.256 **	0.091	-0.247 **	0.088	-0.213 *	0.090
Woman employed man homemaker	-0.047	0.166	0.068	0.160	0.045	0.165	0.112	0.160
Couple's work hours			0.000	0.001			0.000	0.001
Household labor hours			-0.002	0.001			-0.002	0.001
Men's share of household labor			-0.089	0.071			-0.089	0.071
Financial prosperity			0.175 ***	0.019			0.175 ***	0.019
Household income (log)			-0.129 ***	0.020			-0.129 ***	0.020
Married *(ref.=cohabiting)*			-0.306 ***	0.049			-0.306 ***	0.049
Number of children aged 0-4			-0.114 ***	0.027			-0.114 ***	0.027
Number of children aged 5-9			-0.154 ***	0.024			-0.154 ***	0.024
Number of children aged 10-14			**-0.175** ***	**0.024**			**-0.175** ***	**0.024**
Number of children aged 15-24			-0.223 ***	0.025			-0.223 ***	0.025
Self-rated general health			**0.206** ***	**0.017**			**0.206** ***	**0.017**
Partner's self-rated general health			0.124 ***	0.016			0.124 ***	0.016
Constant	8.207 ***	0.019	8.429 ***	0.044	8.115 ***	0.015	8.385 ***	0.043
Sigma u	1.736		1.697		1.736		1.697	
Sigma e	1.315		1.295		1.315		1.295	

Note: Couple's work hours, household labor hours, financial prosperity, men's share of household labor, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

Table 3.4 Fixed effects regressions analysis of men and women's relationship satisfaction dependent on breadwinnership and gender role attitudes

	Men				Women			
	Model 3a		**Model 3b**		**Model 3a**		**Model 3b**	
	(ref: equal earner)		**(ref: male earns more)**		**(ref: equal earner)**		**(ref: male earns more)**	
	B	SE	B	SE	B	SE	B	SE
Breadwinner								
Equal earner								
Equal earnings, both employed	Ref.		-0.005	0.025	Ref.		0.039	0.027
Both not employed	0.096	0.113	0.091	0.112	-0.115	0.115	-0.076	0.112
Male breadwinner								
Both employed, man earned more	0.005	0.025	Ref.		-0.039	0.027	Ref.	
Man employed woman unable to work	-0.056	0.061	-0.061	0.058	-0.046	0.070	-0.007	0.066
Man employed woman homemaker	0.120 **	0.041	0.116 **	0.036	0.138 **	0.046	0.177 ***	0.040
Female breadwinner								
Both employed woman earned more	-0.081 *	0.038	-0.086 *	0.042	-0.103 *	0.040	-0.064	0.043
Woman employed man unable to work	-0.099	0.083	-0.104	0.082	-0.275 **	0.093	-0.236 #	0.093
Woman employed man homemaker	0.094	0.190	0.089	0.190	0.116	0.183	0.155	0.182
Interactions:								
*Breadwinner * Gender role attitudes*								
Equal earnings, both employed * EGRA	Ref.		0.035	0.048	Ref.		0.043	0.047
Both not employed * EGRA	-0.125	0.167	-0.090	0.167	0.035	0.171	0.078	0.170
Both employed, man earned more * EGRA	-0.035	0.048	Ref.		-0.043	0.047	Ref.	
Man employed, woman unable * EGRA	-0.190 #	0.098	-0.155	0.095	-0.184 #	0.097	-0.141	0.092
Man employed, woman home. * EGRA	-0.037	0.076	-0.002	0.074	-0.004	0.071	0.039	0.064
Both employed, woman earn. more * EGRA	-0.083	0.066	-0.048	0.074	0.026	0.064	0.069	0.069
Woman employed, man unable * EGRA	-0.015	0.178	0.020	0.181	0.195	0.170	0.238	0.169
Woman employed, man homemaker * EGRA	-0.121	0.359	-0.087	0.360	-0.103	0.259	-0.060	0.260
Constant	8.496 ***	0.044	8.504 ***	0.044	8.428 ***	0.044	8.386 ***	0.044
Sigma u	1.531		1.531		1.698		1.697	
Sigma e	1.204		1.204		1.295		1.295	

Note: EGRA = Egalitarian Gender Role Attitudes. Models are controlled for all other variables listed in Table 3.2. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

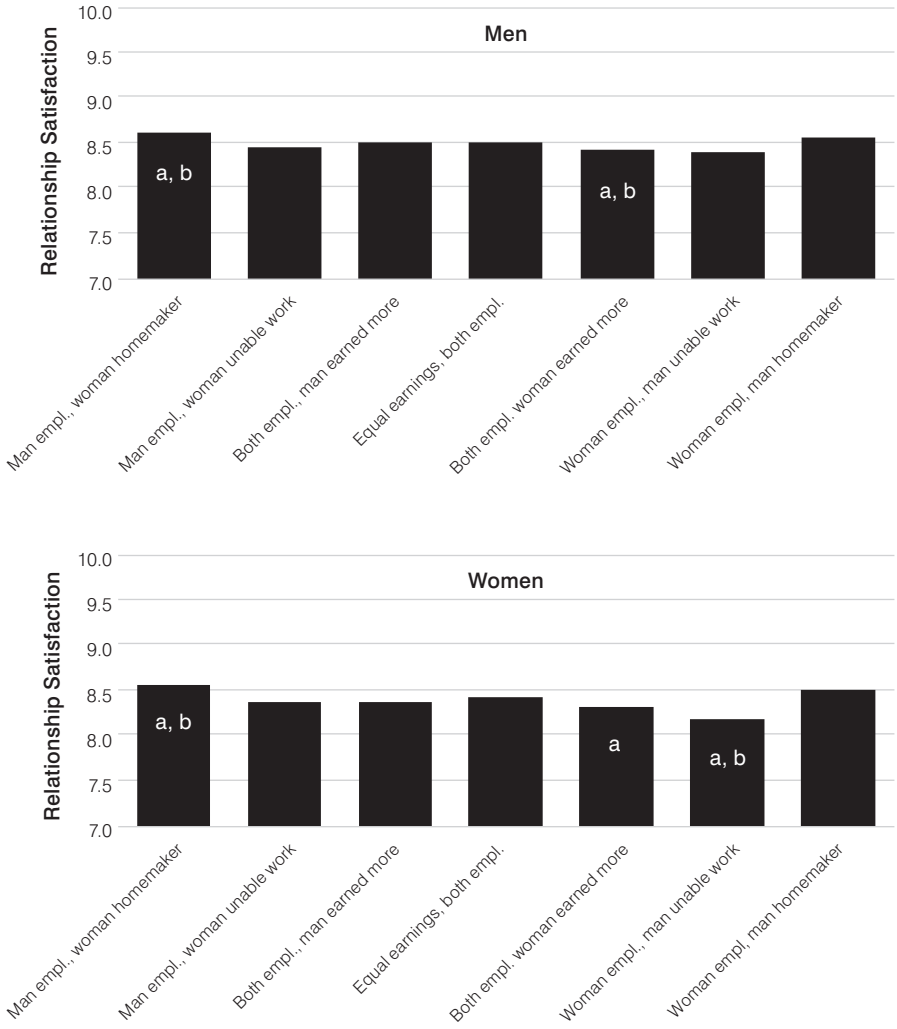


Figure 3.1 Men and women's relationship satisfaction and breadwinner status. a = significant (p<.10) difference with equal earnings both employed, b = significant (p<.10) difference with both employed, woman earned more. Results from Models 2a and 2b, Table 3.2 and 3.3. The calculations refer to respondents in cohabiting couples, with an average number of couple's work hours, (division of) household labor hours, number of children, income and prosperity, and (partner's) health

the results changed if we differentiated between men who were not working due to unemployment from those not working due to illness (see Table A3.8 and A3.9 in Appendix 3). There were no large differences in men's relationship satisfaction. For women these additional analyses suggested that being in a female breadwinner household where the male partner was not working due to illness or disability has a stronger negative association with women's relationship satisfaction than being in a female breadwinner household where her partner was unemployed, which did not reach significance.

3.5 Conclusion and discussion

Although female breadwinner couples are an increasingly prevalent arrangement in most contemporary Western countries, the consequences of becoming a female breadwinner household for relationship outcomes have been understudied. Becoming a female breadwinner couple could have important implications for family life, because this may induce a renegotiation of household labor, create uncertainty, and could result in a re-evaluation of the relationship in general. The current paper investigated if changing to or from a female breadwinner arrangement was related to changes in one's satisfaction with the relationship among Australian different-sex couples. In contrast to previous research which almost exclusively used a cross-sectional perspective (Bertrand et al., 2015; Furdyna et al., 2008; Wilcox & Nock, 2006; Zhang, 2015), this study is among the first to investigate the link between female breadwinners and relationship outcomes from a longitudinal perspective. This longitudinal perspective may be especially important given the transient nature of female breadwinner arrangements (Drago et al., 2005; Winkler et al., 2005), particularly because this transient nature negatively affects relationship quality (Winslow, 2011).

Expectations were formulated based on the (gender neutral) specialization of household labor theory (Becker, 1985), bargaining theory (Blood & Wolfe, 1960), the role collaboration perspective (Rogers, 2004), and the doing gender perspective (West & Zimmerman, 1987). In contrast to previous studies on female breadwinners (Bertrand et al., 2015; Brennan et al., 2001; Winslow, 2011), our definition of breadwinning arrangements took both employment status and income into account. This has deepened our understanding of the mechanisms of the formation of female breadwinner households and their consequences for relationship satisfaction. Our results largely indicated that men and women were less satisfied with their relationship when women were the main provider than when they both contributed about equally to the household income or when men were the main provider. Men and women were less satisfied with their relationship when men were not employed due to illness or unemployment. For men this was largely due to the economic consequences (e.g. a lower income). Women were primarily less satisfied with their relationship when men were unable to work due to illness

or disability, highlighting the far-reaching impact of partner's illness. Importantly, even when both were employed, men and women were largely less satisfied with the relationship when she earned more than him. People were especially less satisfied when the income differences were larger, while smaller differences seemed less influential. No differences in relationship satisfaction were found between people in female breadwinner/male homemaker from when they were in other arrangements. Our findings are mostly in line with the doing gender perspective; people were more satisfied when they were in more traditional arrangements (dual-earner where men earn more, male breadwinner/female homemaker) or relatively equal arrangements (dual-earner with similar income) than in arrangements diverting further from this traditional ideal (female breadwinner arrangements). However, all in all, we found that the consequences of becoming a female breadwinner couple for relationship satisfaction were relatively small, even in a relatively conservative country as Australia. Possibly, the differences in relationships satisfaction between people female breadwinners and other arrangements are smaller in more egalitarian countries. This finding is reassuring for contemporary societies where women are increasingly becoming more educated than men and have the potential to earn more than their male partners (Klesment & Van Bavel, 2017; Van Bavel & Klesment, 2017).

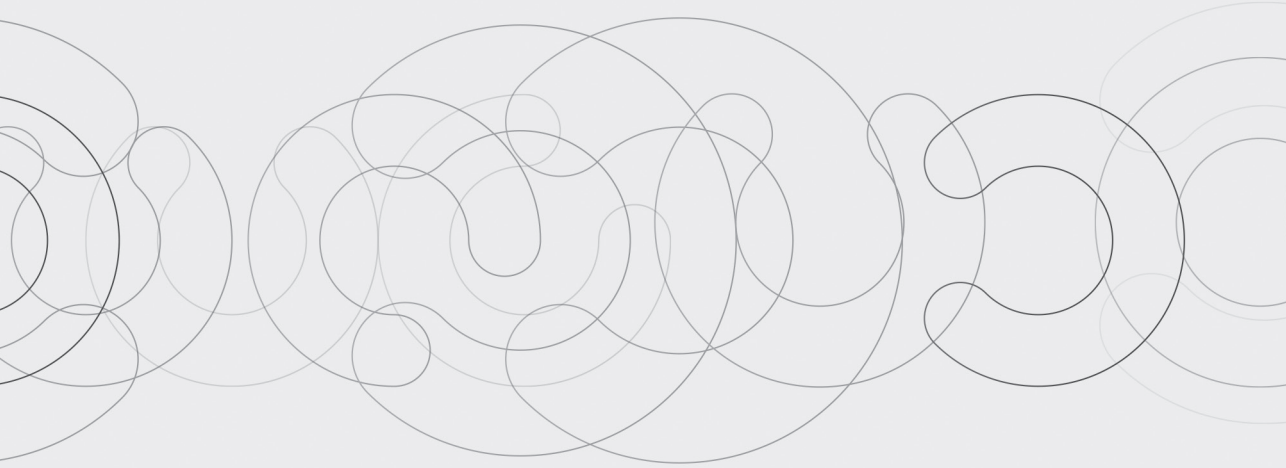
Men and women were less satisfied with the relationship when men were unable to work due to unemployment or illness, but not when women were unable to work. This emphasizes the gendered nature of breadwinning where men's contributions to household finances are regarded as more important than women's. Additionally, perhaps men's illness requires a greater renegotiation of household arrangements or induces inequitable arrangements both in employment and home duties. This remains a topic for future investigation.

Even though our findings are in line with the doing gender perspective, people's personal gender role attitudes does not seem to influence these relationships. This shows that people become less satisfied when they become a female-breadwinner household, regardless of their own personal gender role attitudes. This conclusion is similar to findings by Gong (2007) and Brennan et al.'s (2001), but in contrast to others (Atkinson et al., 2005; Coughlin & Wade, 2012; Furdyna et al., 2008; Zhang, 2015). This finding may indicate the dominance of traditional values about the divisions of labor between partners in Australia, as even though people may be relatively egalitarian in their attitudes, becoming a female breadwinner couple is still similarly detrimental for people's relationships.

Our research had a number of limitations. Our modeling strategy investigated only the general consequences of changes in breadwinner arrangements. A longer scope and longitudinal investigation after such a change could be informative to study the adaptation process predicted by adaption and set-point theory. Additionally, there were a limited number of transitions between certain groups, particularly with female breadwinner/male homemaker households. This may bias our results to be more conservative, overlooking possible positive or negative effects of for relationship satisfaction for these

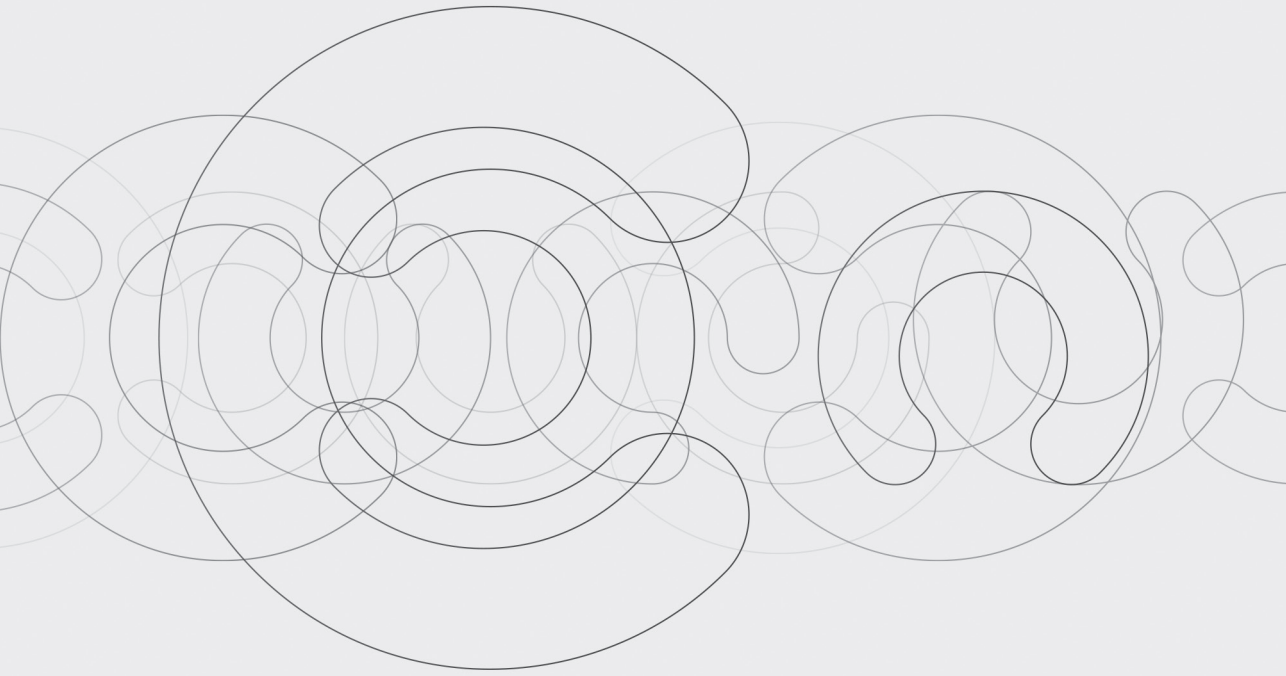
groups. Also, while we hypothesized certain mechanisms how relationships are influenced by becoming a female breadwinner household, such as re-evaluation and reappraisal of the relationship, we did not have the data to explicitly investigate these mechanisms in this study. Lastly, our measurements were not always ideal. Relationship satisfaction was measured with a single item asking people's general appraisal of the partner relationship. However, relationship satisfaction holds various dimensions and future research may employ are broader definition of relationship satisfaction. Moreover, our measurement of gender role attitudes asks about people's general opinion concerning the division of labor within couples. Even though this opinion concerns people's rejection of female breadwinner arrangements, this measurement may concern people's opinion about generalized others, instead of their preferences towards their personal situation. Furthermore, it is a unidimensional instead of a multidimensional measurement of gender role ideology (see Grunow, et al. 2018). This may be an additional reason of our null-finding regarding the moderation by gender role attitudes. Others have suggested masculinity and femininity as moderating factors in related fields (Kluwer, 2011), which may also be a promising direction for future research. Finally, while our use of fixed effects models enables us to control for selection on unmeasured factors that are stable over time, it does not account for time varying unmeasured factors. With relation to the formation of female breadwinner households, unmeasured factors such as changing work-family orientation, could also be important in selecting households into certain breadwinner states and our results need to be interpreted with this in mind. We encourage future research to build upon these limitations.

Despite these limitations, this study expanded upon previous research by showing that becoming a female breadwinner or women's increasing relative contribution to household finances were generally associated with worse couple's relationship (Oppenheimer, 1997; Rogers, 2004). People in Australia were less satisfied with their relationship when women were the main provider for the family. When men became unable to work due to unemployment or illness, both men and women became much less satisfied with the partner relationship. Even when both partners remained employed, people were less satisfied when she had a higher income, highlighting the gendered nature of breadwinning.



4

Current and expected economic hardship and satisfaction with family life in Europe



* A slightly different version of this chapter will be published as:
Blom, N., Kraaykamp, G. & Verbakel, E. (2019). Current and expected economic hardship and satisfaction with family life in Europe. *Journal of Family Issues, 40*(1), 3-32

4.1 Introduction and research question

Many families have experienced economic hardship during the recent economic crises in Europe, such as the loss of employment or income (Eurofound, 2015; Standing, 2011). Although direct consequences of economic hardship are largely employment-related, they likely spill over to people's family life because economic difficulties may foster conflicts between partners due to stress, frustration, depression and because it complicates making future plans for the family. While previous research often studied individual consequences for a person who loses a job or income, all family members may suffer from precarious circumstances, implying that economic crises hit more people than the ones directly involved. This study thus aims to enlarge our knowledge about people's satisfaction with family life and the consequences of economic hardship for family life satisfaction by simultaneously considering two key dimensions of hardship, namely current and expected economic hardship; and by examining under which circumstances economic hardship reduces family life satisfaction more strongly.

While economic hardship encompasses both current economic hardship and people's uncertainty for their economic future (Standing, 2011), most research on economic circumstances and family well-being focusses on one of the two. This article will therefore improve upon this research by simultaneously examining current economic hardship and expectations about future economic hardship. More precisely, this study focusses on (current and expected) financial difficulties and unemployment as two primary indicators of economic hardship. In prior studies, a focus on the consequences of *current* economic hardship dominated research on family well-being. These studies generally concluded that people who perceived or experienced economic hardship reported a lower quality of their partner relationship, reported more conflict between family members, and were less satisfied with their family life (see for instance Conger et al., 2010; Currie, Duque, & Garfinkel, 2015; Dew & Yorgason, 2009; Shim et al., 2017; Vinokur et al., 1996; Williams et al., 2015). The current study explicitly focuses on family life satisfaction, which can be defined as "a conscious cognitive judgment of one's family life in which the criteria for the judgment are up to the individual" (Zabriskie & Ward, 2013, p. 449). This judgment includes an evaluation of the relationship with their spouse, children, and parents. Because satisfaction with family life is strongly related to family functioning, cohesion, and communication (Zabriskie & Ward, 2013), it is a valuable overarching indicator to study family well-being. Family life satisfaction generally interpreted as referring to the nuclear family and specifically the partner relationship (Chapman & Guven, 2016; Greenstein, 2009; Shim et al., 2017).

This article will extend previous research findings also by investigating whether *expected* economic hardship in the near future reduces family life satisfaction. People's perceptions and expectations on future problems likely influence families regardless of actual current hardship (Rosino, 2016). Families make plans for the future, and these plans are partly based on their perceived economic prospects. Expecting economic hardship may make

planning for the future troublesome and more difficult (Hofmann & Hohmeyer, 2013), and the uncertainty about a family's economic future deteriorates its members' well-being (Modrek & Cullen, 2013; Standing, 2011). Prior research on the relationship between people's expectations about their future economic hardship and family well-being is very scarce, but available research on relationship quality has shown that couples who are uncertain about the future report lower quality relationships, less affection, and poorer family communication (Kinnunen & Pulkkinen, 1998; Larson, Wilson, & Beley, 1994; Mauno, Cheng, & Lim, 2017; Mauno & Kinnunen, 1999). Other studies suggested that people are more prone to postpone long-term family investments and commitments when they experience economic uncertainty (De Lange, Wolbers, Gesthuizen, & Ultee, 2014; Hofmann & Hohmeyer, 2013). By simultaneously investigating current and expected economic hardship it is possible to disentangle whether expected economic hardship harms family life satisfaction over and above current hardship, and whether the expectation of future economic difficulties is even more harmful for those who already experience economic hardship.

Another important contribution of this study is its assessment whether the impact of economic hardship on family life satisfaction depends on different contextual circumstances. Whether economic circumstances translate to perceptions of hardship and stress may depend partly on the family and societal context (Boss et al., 2017). Previous studies primarily investigated direct associations between current economic hardship and family well-being as well as the mechanism explaining them (e.g. Williams et al., 2015). What remains unclear is whether economic hardship reduces family life satisfaction differently for people in different situations. This article aims to bridge this gap by studying two possibly moderating factors: the presence of children in the household and the macro-economic situation in a country. Previous studies indicated that parents are more rejecting of financial risks than childless people (Chaulk et al., 2003), and being able to provide for their children showed to be especially important for mothers' well-being (Mistry et al., 2008). These findings highlight the importance parents place on taking financial responsibility for their children. Because parents have more financial responsibilities than childless couples do, economic problems may especially be harmful for parents' personal and family well-being. Research also indicated that children have more psychological and behavioral problems when they experience economic hardship (Conger et al., 2002, 2010; Neppl et al., 2016). Their problems could potentially transfer to parents' satisfaction with family life, again leading to the expectation that economic problems hit couples with children harder than couples without children.

Previous research has mainly studied the influence of financial difficulties on families during macro-economic recession (see for instance Aytaç & Rankin, 2009; Conger et al., 1990; Kwon et al., 2003). It remains unclear if this macro-economic context affects the degree to which hardship influences a person's family life. Related research in the field of personal well-being suggests that economic difficulties influence someone's well-being differently in diverse macro-economic contexts. Empirical support for this expectation is

mixed. The well-being of lower educated women is more strongly affected by changes in macro-level unemployment than the well-being of other women (Currie et al., 2015), whereas macro-level unemployment does not alter the influence of personal unemployment on well-being (Eichhorn, 2012; Oesch & Lipps, 2012). In the current study it is acknowledged that not all countries experienced the same degree of economic hardship during the previous crisis, and this variation is used as a natural experiment. By studying changes in unemployment in various European countries, this article investigates whether the severity of an economic crisis influences how people's perceptions of their own labor circumstances is related to their satisfaction with family life.

In sum, this study builds upon previous research in several ways. First, it studies whether the expectation of economic hardship influences satisfaction with family life alongside with or in combination with current hardship. Second, it investigates whether the associations between current and expected economic hardship and family life satisfaction differ for people with or without children and for people in countries with a lower or higher rise in unemployment. In this paper we also take differences between men and women into account by studying whether economic hardship influences men's and women's family life satisfaction differently. Men's employment is often regarded to be more important for families due to a larger economic contribution to the household and due to internalized and societal traditional gender roles (Shim et al., 2017; Williams et al., 2015). Hence, men and women may react differently to economic hardship, which could affect their family life satisfaction in another way (Shim et al., 2017; Williams et al., 2015).

The research question reads: *To what extent do current and expected economic hardship affect satisfaction with family life, and how do these associations differ between families with and without children and in times of greater unemployment*? This research question will be answered using data from the European Quality of Life Study (EQLS) of 2012, which provided information on 13,013 partnered individuals of working age across 30 European countries. The EQLS data provide a unique opportunity to simultaneously investigate the relationship between economic hardship and satisfaction with family life at the height of the European economic crisis across countries in various degrees of economic downturn. This cross-national variation in (changes in) unemployment enables us to study consequences of a country's unemployment situation for the impact of economic hardship on a person's satisfaction with their family life.

4.2 Theoretical framework and hypotheses

4.2.1 The family stress model: main effects

Previous research focusing on current economic hardship and conflict within a partner relationship often departs from the family stress model (Conger et al., 1990, 2010). This model was designed to study the consequences of the Midwest farm crisis in the 1980s for

families and has found confirmation during other crises across the globe (e.g. Aytaç & Rankin, 2009; Falconier & Epstein, 2010; Kwon et al., 2003). A basic proposition of family stress theory states that negative economic events increase the economic pressure people experience (Conger et al., 1990, 2010). Economic pressure includes unmet material needs, inability to pay bills, and financial cut backs. How people react towards negative economic conditions depends on their perception of these conditions (Boss et al., 2017; Hill, 1958). Previous studies emphasized the importance to differentiate between objective and subjective experiences of stressful circumstances. Objective negative economic events such as job loss lead to subjective experiences of these events, resulting in stress (Hill, 1958; Rosino, 2016). The subjective experiences or perceptions do not have to originate from actual events and can induce stress similarly to objective experiences (Hill, 1958). When people perceive an event as stressful or frustrating, it is presumed they become more emotionally and behaviorally distressed, as expected from for instance frustration-aggression arguments and the ABC-X model (Berkowitz, 1989; Hill, 1958). Emotional consequences of economic pressure may include depression and anger. Both influence satisfaction with family life negatively because these increase "aggressive or angry responses, such as criticism, defensiveness, and insensitivity, as well as withdrawal of supportive behaviors" (Conger et al., 2002, p. 181). Anger also causes hostility between partners and therefore augments possible conflict, impacting the quality of the partner relationship (Kluwer & Johnson, 2007), while depression induces emotional withdrawal and distancing, reducing satisfaction with family life (see also Conger et al., 2010).

Aside from the indirect consequences of economic pressure via stress, anger, and depression, economic pressure also has a more direct effect on people's satisfaction with family life. Economic hardship causes partners to have arguments over financial issues, and these quarrels proved more problematic and recurrent than arguments about other issues (Papp, Cummings, & Goeke-Morey, 2009). Next to inducing financial pressure, unemployment reduces people's structured time, social contact, sense of purpose, status and activity, which are important psychological needs (Paul & Moser, 2009). The lack of fulfilment of these needs results in more distress, which in turn might result in people being less satisfied with their family life. Therefore, it is expected that: (Hypothesis 1) *When people experience current economic hardship, they are less satisfied with family life*.

Similar to present-day economic hardship, the expectation of economic hardship likely influences family life. Perceptions of the future can shape current behavior and thus influence families (Mantler, Matejicek, Matheson, & Anisman, 2005; Rosino, 2016). People who are uncertain about their future economic situation likely anticipate an economic pressure in the near future and therefore may become more distressed, anxious and both emotionally and physically exhausted (Mantler et al., 2005; Standing, 2011). According to the family stress model, such emotional consequences induce more aggressiveness and angry responses towards a partner, and less supportive behavior, such as showing empathy and interest, and listening (Conger et al., 2002). Economic insecurity has been

found to reduce marital adjustment, family communication, affective involvement, and the quality of the relationship (Kinnunen & Pulkkinen, 1998; Larson et al., 1994; Mauno et al., 2017). Accordingly, expecting future economic hardship may have similar consequences for a person's family life satisfaction as current economic hardship. Moreover, expecting economic hardship may result in postponement of long-term family commitments. People may be less inclined to marry or to have children when they are uncertain about future employment, earnings, or their households' economic situation (De Lange et al., 2014; Hofmann & Hohmeyer, 2013). Delay of long-term commitments has been found to be negatively related to perceived quality of partner relationships (Wiik, Keizer, & Lappegård, 2012). Therefore, the second hypothesis reads: (Hypothesis 2) *When people expect economic hardship, they are less satisfied with family life.*

Moreover, people who currently experience economic hardship may be less able to handle future economic hardship. When people experience a decline in income, they need to adjust their spending to their new level of income. However, when people are already barely able to make ends meet, an additional loss of income would require extra financial cutbacks even though families may be unable to do so without cutting back on important needs. Therefore, expecting economic hardship may be especially stressful for families that are already experiencing economic hardship. Hence: (Hypothesis 3) *Expected economic hardship is more detrimental for people's satisfaction with family life when they currently experience more economic hardship.*

4.2.2 Conditional influences of having children and macro-level unemployment

It is likely that not all people react to economic hardship to the same degree. The impact of current and expected economic hardship on family life satisfaction is argued to depend on the presence of children and the rise of unemployment in a country. First, the extended family stress model – which incorporated parenting and children's well-being into the original family stress model (Conger et al., 2002, 2010) – argues that the experience of economic pressure not only results in lower-quality interactions with the partner, but may also lead to more aggressive or angry responses in the interaction with children (Conger et al., 2002, 2010; Neppl et al., 2016). It is argued that emotional and relational consequences of economic pressure make parenting more harsh, inconsistent, and uninvolved (see Conger et al., 2010 for a review). The extended family stress model hypothesizes that children in families with economic difficulties experience more psychological (e.g. anxiety and depression) and behavioral problems (e.g. aggressive and antisocial), and children are less attached to their parents (Neppl et al., 2016). We expect that such behavioral problems would also relate negatively to parental family life satisfaction. In addition, because parents likely have more financial responsibilities than childless people (Chaulk et al., 2003), current and expected hardship may be more stressful for parents than non-parents. Negative economic events, may be perceived as a more substantial problem and therefore will be

experienced as more stressful by parents than by people without children (Boss et al., 2017), because of their need and strong desire to financially take care of their children (Mistry et al., 2008). Taking all arguments together it is hypothesized that: (Hypothesis 4) *(a) Current and (b) expected economic hardship are more detrimental for people's satisfaction with family life if they have children.*

Second, macro-economic circumstances may influence whether personal hardship is perceived as stressful (Boss et al., 2017). Specifically, the unemployment situation in a country may influence the impact of economic hardship on family life satisfaction. High and rising unemployment rates signal few job vacancies. Moreover, rising unemployment levels in a country amplify stress among people who experience or expect economic hardship since they observe limited opportunities to improve their income or employment situation (Oesch & Lipps, 2012). Congruent with these arguments, Currie et al. (2015) found that a rise in unemployment was especially harmful for the well-being of lower-educated mothers, who could be considered to be in more precarious positions than their higher-educated female counterparts. Additionally, people were also found to experience more work stress when there had been more layoffs in their company (Modrek & Cullen, 2013), suggesting that being at risk of becoming unemployed is more stressful in situations where many people lose their jobs. Our final hypothesis is: (Hypothesis 5) *(a) Current and (b) expected economic hardship are more detrimental for people's satisfaction with family life in countries with a large rise in unemployment.*

4.3 Data and method

4.3.1 Data

The European Quality of Life Survey (EQLS) of 2012 was used to test our hypotheses. EQLS data were collected in EU27 countries in late 2011, and the beginning of 2012 using face-to-face interviews. In the summer of 2012 interviews were held in seven additional countries, namely Croatia, Iceland, Kosovo, the Former Yugoslav Republic (FYR) of Macedonia, Montenegro, Serbia, and Turkey. The response rate was 41.3 percent in the EU27 countries and 44.7 percent in the other countries (see www.eurofound.europa.eu). Because of missing information on country characteristics, Kosovo, FYR Macedonia, Montenegro, and Serbia were omitted from the analyses. Only people who cohabited with a different-sex partner and lived independently of their own or partner's parents were selected for this study. The sample was further restricted to people of working age (18 to 65 years old) and whose main daily activity was either being employed, unemployed, or homemaker, therefore excluding people who were retired, unable to work due to long-term illness or disability, or in education. Next, we selected people whose partner was also of working age (18 to 65 years old) and were also either employed, unemployed, or homemaker. These criteria ensured that this study solely included people whose

financial situation reflected their personal or their partner's circumstances rather than their parents' resources, and referred to people's satisfaction with their own family life instead of satisfaction with their family of origin. Following these inclusion criteria, the sample consisted of 13,013 individuals across 30 countries. Missing values on independent variables were multiply imputed per country using all other independent variables and main daily activity of both partners, and work hours as predictor variables. The question on expected job loss was only applicable to people in employment. Consequently, analyses regarding expected job loss were based on a restricted sample of 10,177 employed persons.

4.3.2 Measurements

The dependent variable *satisfaction with family life* was measured by asking people how satisfied they were with their family life. The scale ranged from one ('very dissatisfied') to ten ('very satisfied'). This question was generally interpreted as referring to the *nuclear* family (Chapman & Guven, 2016; Greenstein, 2009; Shim et al., 2017). Similar questions have been included in, for instance, the Satisfaction With Family Life Scale (Zabriskie & Ward, 2013). The distribution of this dependent variable was highly skewed (mean = 8.47), which was taken into account in the robustness analyses by using a negative binomial multilevel modelling (see Appendix 4 Tables A4.3 and A4.4). These analyses led to similar conclusions as using the original scale.

As mentioned before, current economic hardship was operationalized as experiencing financial hardship and unemployment. *Financial hardship* was measured using the concept of making ends meet. Respondents were asked: "Thinking of your household's total monthly income: is your household able to make ends meet?" Answer categories ranged from one ('with great difficulty') to six ('very easily'). The scale was reversed so that higher scores implied more financial hardship. *Unemployment* was measured with a binary variable for the respondent and the partner separately: 'not unemployed' (0) versus 'unemployed' (1). Partner's unemployment was included for its importance for couple's well-being (see Chapter 2 and 3).

Expected economic hardship was indicated by the expectation that the future household situation was likely to be worse and by expecting job loss. *Expected financial situation* was measured with the question: "When it comes to the financial situation of your household, what are your expectations for the 12 months to come, will the next 12 months be (1) *better*, (2) *worse* or (3) the *same*?" *The same* was used as the reference category. For employed people *expecting job loss* was measured with the question: "How likely or unlikely do you think it is that you might lose your job in the next 6 months" The answer categories ranged from 'very unlikely' to 'very likely'. Because of non-linearity this indicator was included categorically, and for reasons of parsimony the categories were reduced to three groups: 'job loss is unlikely', 'job loss is neither likely nor unlikely', and 'job loss is likely'.

Table 4.1 Descriptive statistics for the full and the employed sample, before grand-mean centering

			Full sample		Employed sample		Countries	
			(N = 13,033)		(N = 10,177)		(N = 30)	
	Nr. of values imputed	Range	Mean/%	SD	Mean/%	SD	Mean/%	SD
Satisfaction with family life	0	1-10	8.47	1.66	8.54	1.59		
Current economic hardship								
Financial hardship	116	1-6	3.35	1.25	3.18	1.18		
Unemployed *(ref.=not)*	0	0-1	8.50					
Partner unemployed *(ref.=not)*	0	0-1	6.38		4.70			
Expected economic hardship								
Future financial situation								
Same	938	0-1	50.96		53.06			
Better	938	0-1	19.48		18.58			
Worse	938	0-1	29.55		28.36			
Expected job loss								
Unlikely	494	0-1			69.29			
Neither likely nor unlikely	494	0-1			16.11			
Likely	494	0-1			14.60			
Male *(ref.=female)*	0	0-1	43.16		50.02			
Age	0	18-65	42.26	10.03	42.58	9.85		
Education								
Less than upper secondary	97	0-1	24.81		18.48			
Upper secondary	97	0-1	45.21		46.70			
Tertiary	97	0-1	29.97		34.82			
Children under 25								
None	0	0-1	12.31		13.13			
One or two	0	0-1	53.34		53.27			
Three or more	0	0-1	11.29		9.72			
Support	118	0-1	0.95	0.13	0.96	0.12		
Country characteristics								
Change in Unemployment %	0	-1.7-10.3					3.64	3.64
GDP/1000	0	7.8-113.2					34.02	22.39
Social protection expenditure	0	12.9-31.2					22.73	5.38

Source: EQLS 2012, Eurostat

The presence of *children* was measured as the number of children under 25 years living in the household. The age of 25 was chosen as upper limit since parental financial responsibilities often continue beyond children's age of 18. The variable consisted of three categories; *'no children under 25'* (0), *'one or two children under 25'* (1), and *'three or more children under 25'* (2). The macro-economic circumstances in a country were measured as the *change in unemployment* as percentage of the economically active population (aged 20 to 64) between 2008 and 2011, derived from Eurostat. Individual-level control variables included were *gender, age, educational attainment* (ISCED-classification, in three categories), and *support*. Support was measured as the mean of whether people could depend on help from (0) nobody versus (1) institutions, family members, relatives, friends, neighbors, or someone else in the following situations: help around the house when ill, advice about a serious personal or family matter, help with looking for a job, wanting someone to talk to, and urgently raise money to face an emergency. All these control variables could potentially influence the level of economic hardship people experience and their level of family life satisfaction. The country-level controls that were included were *GDP per capita* in current market prices in Euros divided by 1000, and *social protection expenditure* as percentage of the GDP[8], which were derived from Eurostat. These factors could influence family life satisfaction and economic hardship, and are related to the level of contextual unemployment (e.g. GDP affects family life satisfaction, Greenstein, 2009). Table 4.1 shows descriptive statistics for all variables for the full sample and for the subsample of employed-only. The full sample is used when analyzing the influence of current financial hardship, current unemployment, and expected financial situation. The sample of only employed respondents is used when analyzing the influence of expected job loss, since one's expectations about potential job loss are inherently only asked among those currently having a job. All continuous variables were grand-mean centered. Table A4.1 in Appendix 4 shows the mean satisfaction with family life, the macro-level indicators (before grand-mean centering), and the number of respondents per country.

4.3.3 Analytical strategy

The associations between the four indicators of economic hardship and family life satisfaction were considered bivariately first (see Figure 4.1). Next, multivariate analyses were conducted using multilevel analyses to take into account that individuals were nested in countries (intraclass correlation is .033). The explained variance is calculated based on the Snijders and Boskes' method (R^2 S&B) (LaHuis, Hartman, Hakoyama, & Clark, 2014). The main effects of economic hardship and the interaction between current and future economic hardship were shown in Table 4.2. Model 1 showed the main associations between satisfaction with family life and financial hardship, unemployment, and expectations about the financial situation and includes all control variables. The associations between

8 Conclusions were the same when we used a broader welfare indicator, namely welfare regime type.

expected job loss and satisfaction with family life are presented in Model 2 as these were based on the subsample of employed people, since inherently only employed people may be expected to lose their jobs. Models 3 and 4 showed the interaction between current and expected economic hardship. Table 4.3 shows the interactions between economic hardship, the presence of children and change in macro-level unemployment. These gender interactions were included in Models 5 to 14, and were controlled for all other variables. Differences between men and women are indicated by bold coefficients in Tables 4.2 and 4.3. Difference were tested by simultaneously interacting all indicators with gender in additional analyses.

4.4 Results

4.4.1 Bivariate analyses

A first step was to test whether people who experienced or expected economic hardship were less satisfied with their family life. Figure 4.1 shows the association between current financial hardship and satisfaction with family life and indicated that people indeed were less satisfied with their family life when they experienced more financial hardship. In addition, people who themselves were unemployed or whose partner was unemployed were less satisfied with their family life. Figure 4.1 also showed that people, who expected their future financial situation to worsen, reported a lower satisfaction than people who expected financial stability. People who expected to be better off financially were most satisfaction with their family life. Lastly, people who found it likely that they would lose their job showed less satisfaction with their family life than people who expected job stability, but people who found it likely to lose their job were more satisfied than people who found it neither likely nor unlikely. So, uncertainty seems to be harmful for a person's family life satisfaction.

Exploration of the associations between the measurements of economic hardship (not shown) supported, first, the general idea that employment and financial situations go hand in hand: Current unemployment (of either respondent or partner) was associated with more current financial hardship and expected job loss was associated with worse expected financial situation. Second, it revealed that those currently in disadvantaged positions (either in unemployment or financial hardship) expected to have either better or worse financial situations in future compared to those currently in advantaged positions, who in turn were more likely to expect no change of their situation.

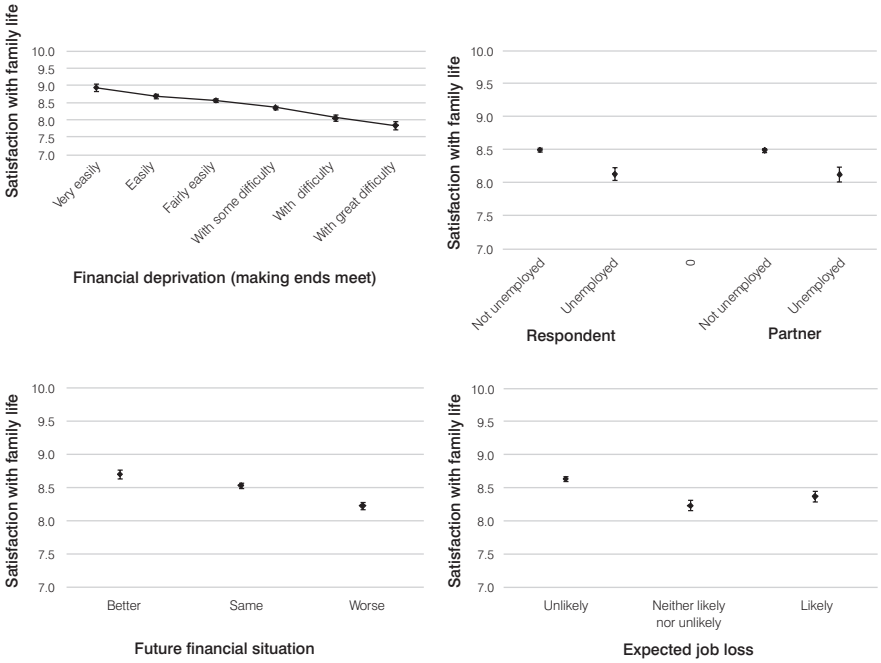


Figure 4.1 The association between economic hardship and satisfaction with family life, bivariate results

4.4.2 Satisfaction with family life and economic hardship

Table 4.2 reports the associations between economic hardship and family life satisfaction from the multilevel analyses holding all other aspects constant. Model 1[9] shows that people who experienced more financial hardship were less satisfied with their family life (b = -0.175). Also, people expressed lower satisfaction when they or their partner were unemployed (b = -0.168 and b = -0.149 respectively). The negative association between partner's unemployment and satisfaction with family life was only significant for women, indicating women's lower satisfaction with their family life when their partner was unemployed. All in all, findings supported Hypothesis 1 on the detrimental effect of current economic hardship for family life satisfaction.

Model 1 also showed that people who expected their financial situation to worsen were less satisfied with their family life (b = -0.223), while people who expected to be

9 R^2(S&B) = 0.015 for full sample when only the control variables were included.

better off in the near future showed more satisfaction (b = 0.147). Model 2[10] (based on employed people only) adds to this that family life satisfaction was higher among people who found it unlikely to lose their job as compared to people who found it likely or who found it neither likely nor unlikely (b = -0.145 and b = -0.264 respectively). These findings supported Hypothesis 2. Analyses gave no indication of gender differences in these effects. All other economic hardship indicators in Model 2 showed similar results for people who were employed compared to the full sample (in Model 1) with the exception that partner unemployment was no longer negatively related to satisfaction with family life. Additional analyses showed that of all indicators for economic hardship, only the influence for current financial hardship varied over countries.

Regarding the control variables in the models, men showed to be more satisfied with their family life than women. Age did not affect family life satisfaction. The higher educated reported more satisfaction with their family life than the lower educated. People with one or two children under 25 in the household were more satisfied with their family life than people without children in the full sample, but not in the sample of only employed respondents. People who expected to receive more support from the social network were more satisfied with their family life (women more than men). The country-level indicators did not influence satisfaction with family life, with the notable exception of social protection expenditure which was negatively related to satisfaction with family life for men.

Models 3 and 4 in Table 4.2 showed whether expecting financial hardship (Model 3) or expecting job loss (Model 4) was especially harmful for people's satisfaction with family life when they currently experienced financial hardship, as expected in Hypothesis 3. Model 3 showed that expecting to be financially worse off in the next year did not amplify the negative influence of current financial hardship. The interaction results of Model 4 were presented in Figure 4.2 to facilitate interpretation. These results indicated that among those with most current financial hardship, family life satisfaction was not associated with expected job loss, whereas we expected that in such situation, differences in family life satisfaction would be especially large between those who find it likely versus unlikely to lose their job in the next year. In sum, we reject Hypothesis 3; expecting economic hardship was not more detrimental for people's satisfaction with family life when they currently experienced more economic hardship.

10 R^2(S&B) = 0.010 for employed-only sample when only the control variables were included.

Table 4.2 The influence of economic hardship on satisfaction with family life

	Model 1			Model 2			Model 3			Model 4		
	Full sample			Only employed			Full sample			Only employed		
	B		SE	B		SE	B		SE	B		SE
Intercept	8.421	***	0.067	8.554	***	0.070	8.422	***	0.067	8.547	***	0.070
Current economic hardship												
Financial hardship	-0.175	***	0.014	-0.162	***	0.015	-0.172	***	0.020	-0.181	***	0.018
Unemployed *(ref.=not)*	-0.168	**	0.053				-0.165	**	0.053			
Partner unemployed *(ref.=not)*	**-0.149**	*****	**0.060**	-0.115		0.074	**-0.146**	*****	**0.060**	-0.119		0.074
Expected economic hardship												
Expected financial situation (ref.=same)												
Better	0.147	***	0.041	0.133	**	0.044	-0.202	***	0.038	0.132	**	0.044
Worse	-0.223	***	0.038	-0.154	***	0.039	0.149	***	0.042	-0.156	***	0.039
Expected job loss (ref.=unlikely)												
Neither likely nor unlikely				-0.264	***	0.045				-0.286	***	0.046
Likely				-0.145	**	0.051				-0.138	**	0.052
Male *(ref.=female)*	0.111	***	0.029	0.098	**	0.031	0.114	***	0.029	0.099	**	0.031
Age	-0.002		0.002	-0.002		0.002	-0.002		0.002	-0.002		0.002
Education (ref.=less than upper secondary)												
Upper secondary	**0.039**		**0.039**	**-0.010**		**0.045**	**0.037**		**0.039**	**-0.010**		**0.045**
Tertiary	0.086	*	0.043	0.047		0.048	0.084	*	0.043	0.047		0.048
Children under 25 (ref.=none)												
One or two	0.084	**	0.031	0.050		0.034	0.084	**	0.031	0.052		0.034
Three or more	0.086		0.050	0.111		0.057	0.086		0.050	0.112	*	0.057
Support	**0.730**	*******	**0.115**	0.457	***	0.133	**0.719**	*******	**0.115**	0.467	***	0.133
Macro-level indicators												
Change in Unemployment %	0.030		0.018	0.020		0.017	0.030		0.018	0.020		0.017
GDP	0.002		0.003	0.001		0.003	0.002		0.003	0.001		0.003
Social protection expenditure	**-0.002**		**0.013**	-0.007		0.012	**-0.002**		**0.013**	-0.007		0.012
Interaction coefficients												
Financial hardship * Better financial future							-0.046		0.032			
Financial hardship * Worse financial future							0.052		0.033			
Financial hardship * Expected job loss, neither										0.113	**	0.042
Financial hardship * Expected job loss, likely										0.018		0.042
Variance												
Residual	2.579		0.032	2.366		0.033	2.577		0.032	2.364		0.033
Country	0.079		0.022	0.068		0.020	0.079		0.022	0.068		0.020
R^2 (S&B)			0.039			0.032			0.039			0.033
Log likelihood			49881.336			37713.823			49399.881			37705.138

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. **Bold** is significant (p<.05) differences between men and women. Results based on multilevel models; N = 13,013 for the full sample, N = 10,177 for the only employed sample, across 30 countries. R^2 (S&B) is the explained variance as calculated by Snijder's and Boskes' method (see LaHuis et al., 2014).

Table 4.3 Current and expected economic hardship and satisfaction with family life, and the dependency on the presence of children and change in macro-level unemployment

	Model 5			**Model 10**		
Financial hardship (full sample)	B		SE	B		SE
Financial hardship	-0.179	***	0.021	-0.178	***	0.022
Children under 25 (ref.=none)						
One or two children	0.084	**	0.032			
Three or more children	0.097		0.050			
Financial hardship * One or two children	0.019		0.025			
Financial hardship * Three or more children	-0.045		0.037			
% Change Unemployment				0.028		0.017
Financial hardship * % Change Unemployment				0.002		0.007
	Model 6			**Model 11**		
Respondent's unemployment (full sample)	B		SE	B		SE
Unemployed *(ref.=not)*	-0.254	**	0.083	-0.185	**	0.060
Children under 25 (ref.=none)						
One or two children	0.074	*	0.033			
Three or more children	0.060		0.052			
Unemployment * One or two children	0.104		0.108			
Unemployment * Three or more children	0.295		0.170			
% Change Unemployment				**0.027**		**0.018**
Unemployment * % Change Unemployment				0.018		0.017
	Model 7			**Model 12**		
Partner unemployment (full sample)	B		SE	B		SE
Partner Unemployed *(ref.=not)*	-0.124		0.094	**-0.162**	**0.055**	**0.084**
Children under 25 (ref.=none)						
One or two children	0.081	*	0.032			
Three or more children	0.113	*	0.051			
Partner unemployment * One or two children	0.046		0.123			
Partner unemployment * Three or more children	**-0.424**	*****	**0.195**			
% Change Unemployment				0.026		0.018
Partner unemployment * % Change Unemployment				0.018		0.024

Table 4.3 Continued

	Model 8			Model 13		
Future financial situation (full sample)	B		SE	B		SE
Expected financial situation (ref.=same)						
Better financial future	0.131		0.068	0.157	**	0.051
Worse financial future	-0.209	***	0.058	-0.201	***	0.049
Children under 25 (ref.=none)						
One or two children	0.064		0.044			
Three or more children	0.202	**	0.073			
Better financial future * One or two children	0.058		0.086			
Better financial future * Three or more children	-0.141		0.132			
Worse financial future * One or two children	0.030		0.072			
Worse financial future * Three or more children	**-0.278**	*****	**0.117**			
% Change Unemployment				0.022		0.019
Better financial future * % Change Unemployment				0.002		0.015
Worse financial future * % Change Unemployment				0.019		0.016
	Model 9			**Model 14**		
Expected job loss (only employed sample)	B		SE	B		SE
Expected job loss (ref.=unlikely)						
Job loss, neither likely nor unlikely	-0.451	***	0.074	-0.258	***	0.045
Job loss, likely	-0.146		0.078	-0.144	**	0.052
Children under 25 (ref.=none)						
One or two children	-0.007		0.040			
Three or more children	0.099		0.068			
Job loss, neither * One or two children	0.325	***	0.094			
Job loss, neither * Three or more children	0.154		0.168			
Job loss, likely * One or two children	0.021		0.096			
Job loss, likely * Three or more children	-0.092		0.157			
% Change Unemployment				0.013		0.017
Job loss, neither * % Change Unemployment				0.019		0.014
Job loss, likely * % Change Unemployment				0.018		0.015

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. **Bold** is significant (p<.05) differences between men and women. Results based on multilevel models; N=13,013 for the full sample, N=10,177 for the only employed sample, across 30 countries. Controlled for all other variables included in Table 4.2.

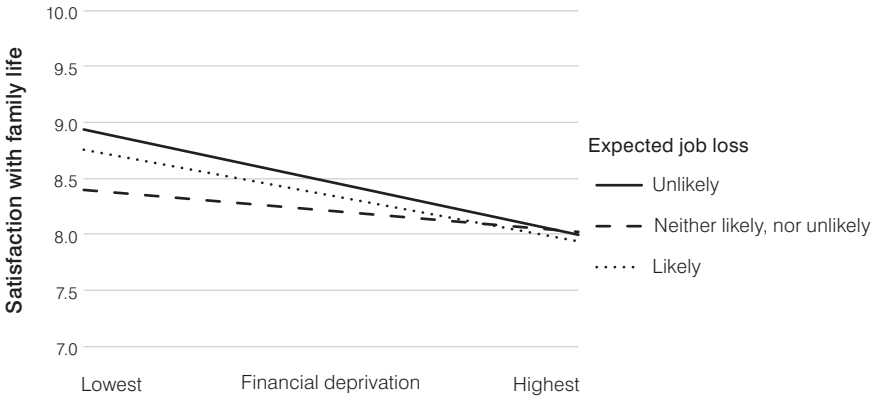


Figure 4.2 Moderation between financial deprivation, expected job loss, and family life satisfaction

4.4.3 Conditional influences

Table 4.3 shows the models with interactions between the presence of children, change in country's level of unemployment, and economic hardship; the variances for these models are shown in Table A4.2 in Appendix 4. In line with Hypothesis 4, we found some support that economic hardship reduced family life satisfaction especially if three or more children lived in the household. More precisely, having an unemployed partner reduced satisfaction with family life for women with three of more children, but not for childless women (Model 7), and expecting a financial decline was more detrimental for family life satisfaction for women with three or more children compared to childless women (Model 8). However, contrary to the hypothesis, current financial hardship (Model 5), unemployment (Model 6), and expected job loss (Model 9) were not more detrimental for people with children than for childless people. All in all, Hypothesis 4 cannot be confirmed unequivocally.

Lastly, results concerning the conditional influence of change in the percentage of unemployed in a country (Hypothesis 5) were reported in models 10 to 14 in Table 4.3[11]. No indication was found that economic hardship was more detrimental for people's satisfaction with family life in countries that had experienced a larger rise in unemployment, for all interaction coefficients were non-significant.

11 Model 14 did not converge when job loss was set random over countries, therefore these dummies were restricted to be fixed in this model.

4.4.4 Robustness analyses

Several checks for robustness were conducted. First and foremost, multilevel negative binomial analyses designed for count-variables were conducted because this type of analysis is designed to deal with highly skewed dependent variables (the scale of family life satisfaction was reversed for these analyses). See Appendix 4 Tables A4.3 and A4.4. Differences were limited. The analyses only indicated that the main effect of partner unemployment and its interaction with the presence of children were not related to satisfaction with family life. Other results were robust.

Second, we restricted the age selection to 25 - 55 to deal with possible selectivity in the youngest and oldest age groups; generally lower educated are employed at a younger age, and are less likely to retire early. These analyses did not lead to different conclusions (see Appendix 4 Table A4.5 and A4.6), but in these models the interaction between financial decline and presence of children was no longer significant.

Third, in our current measurement of individual and partner unemployment, homemakers and employed people were combined in the reference category for reasons of parsimony. Differentiating employed people from homemakers provided the same conclusions (see Appendix 4 Table A4.7).

Fourth, the reference category for the presence of children included both people without children and people with children who had left the household. Possibly, the absence of moderation by presence of children was caused by this ambiguity. Therefore, we distinguished two groups, people without children in the household (1) below age 40 and (2) above age 40. This led to similar conclusions, but expected financial decline and presence of children was no longer significant (see Appendix 4 Table A4.8).

Fifth, it was checked whether the measurement of the macro-economic circumstances influenced the associations between economic difficulties and satisfaction with family life. Alternatives that were tested (see Appendix 4 Table A4.9) included the moderating influence of (1) relative change in unemployment levels between 2008 and 2011, (2) the unemployment percentage in a country in 2011, (3) GDP per capita, (4) the average GDP growth between 2008 and 2011, and (5) the GDP growth in 2011. All models showed that the macro-economic circumstances did not (consistently) influence the effect between economic hardship and family life satisfaction.

Overall our robustness checks suggested that the main findings were generally robust. The direct associations between financial and employment difficulties and satisfaction with family life were robust for all measurements and selections that were made, with two exceptions. First, unemployment of the partner was not negatively related to satisfaction in our negatively binomial analyses. Second, interactions between unemployment of the partner and future financial situation with the presence of children were not very robust. Therefore, these results should be interpreted with care.

4.5 Conclusion and discussion

This study investigated how satisfaction with family life is influenced by various forms of economic hardship. More specifically, we studied whether people were less satisfied with their family life if they experience more economic hardship or expect more economic hardship in the near future. Additionally, we investigated if expecting economic hardship was especially harmful for people's satisfaction when they currently experience more economic hardship.

Our main finding is that people who currently experienced and perceived economic hardship were less satisfied with their family life. This conclusion is in line with previous studies (e.g. Shim et al., 2017; Williams et al., 2015). While previous studies mostly focused on single countries, our research indicated that this negative association is generally applicable to a wide range of European countries; overall people who experienced financial hardship or were unemployed showed to be less satisfied with their family life. Our study also included individual and partner's unemployment, since the employment of both partners is of importance for couples' well-being (see also chapter 3). The unemployment of individuals and their partners demonstrated to have an additional negative effect on family satisfaction even when financial hardship was taken into account. This may be explained by a potential reduction of people's social contacts, sense of purpose, and status when becoming unemployed (Paul & Moser, 2009).

This study is among the first to study both current and expected economic hardship and their consequences for people's satisfaction with their family life. We showed that – aside from current economic hardship – people who expect a financial decline or job loss were less satisfied with their family life. Therefore, this research provides clues that people's expectations about their future financial and employment situations are meaningful in understanding evaluations of family life. Insecurities about future finances or potential job loss, however, did not seem to amplify the negative consequences for families in current economic hardship. In sum, we conclude that people's expectations of their financial and employment future shape people's family life satisfaction over and above their current experiences.

We further investigated whether economic difficulties were more harmful for family life when children lived in the household or when national unemployment rates had risen sharply during the recent European economic crises. Remarkably, this study showed that having children or living in a country with high unemployment risks did not condition the relationship between economic hardship and family life satisfaction. It must be noted that for having children some results supported the idea that hardship had more detrimental consequences for satisfaction in large families. These results however were not very consistent or robust. Possibly, we did not find economic difficulties affecting parents' and non-parents' satisfaction differently because conflicting mechanisms counterbalanced each other. On the one hand, parents have more financial responsibilities, which may strengthen the

importance of their economic situation when assessing their family life satisfaction. On the other hand, a household's economic situation may be less important for parents' satisfaction with family life, because their satisfaction with family life is primarily constructed around their parental status, in contrast to people without children. This may serve as a protective factor against the influence of economic problems on their family life. In sum, our study indicated that economic difficulties had a relatively universal effect on people's satisfaction with family life, for associations were largely independent of family composition, macro-economic circumstances, and gender.

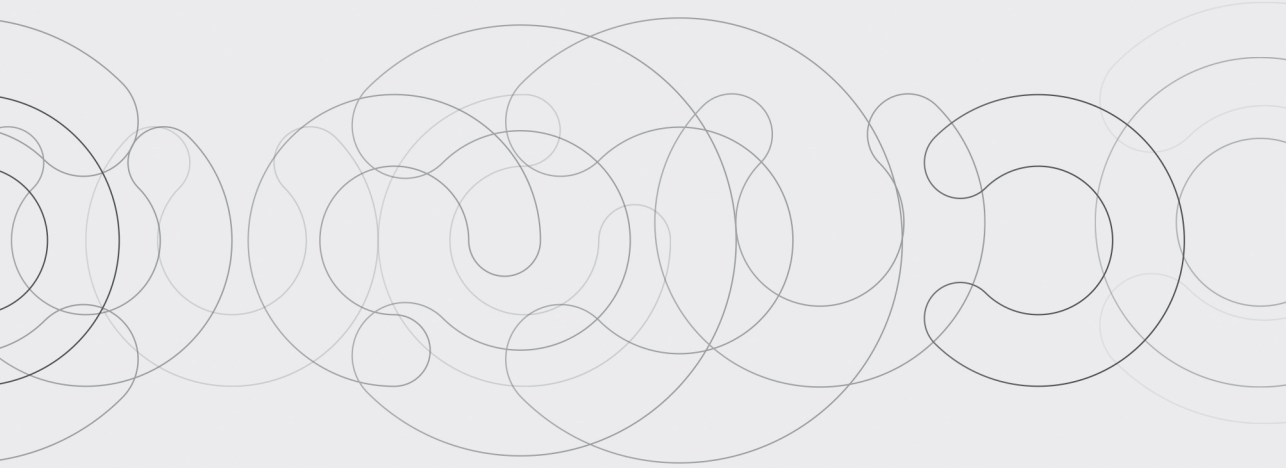
This study is, to our knowledge, the first study to investigate the consequences of economic hardship on people's satisfaction with family life across a wide range of countries. Additionally, our findings indicated that financial hardship affected people's family life differently across European countries; in some countries financial problems affected the family more than in others. A country's economic situation, however, did not appear to explain these cross-national differences. We encourage other researchers to investigate how other contextual circumstances affect how a person's economic situation influence people's family life, such as a family culture and the welfare state (Boss et al., 2017). Although this study benefitted from using cross-national data, using such data comes with some drawbacks. The measurement of satisfaction with family life proved highly skewed and was measured with a single item. Future research therefore could benefit from using more comprehensive scales, such as the Satisfaction With Family Life scale (Zabriskie & Ward, 2013). Furthermore, macro-economic conditions were measured on the country-level. Possibly regional economic conditions, job sector-specific conditions, or the economic conditions of the extended social network would more strongly reflect people's perception of their economic circumstances, which could influence how people perceive their personal economic hardship and its consequences.

Aside from the factors studied in this paper, other precarious labor market conditions may be important for the quality of family relationships. Future researcher could investigate the influence of other precarious labor market conditions such as underemployment and flexible contracts. In addition, we encourage future studies to investigate whether resources, for instance (social) support, may diminish the negative consequences of economic difficulties for families. Negative economic events potentially do not strike every family to the same degree. Some families are better able to handle negative economic events than others due to their resources, such as their social support system (Boss et al., 2017).

Finally, we encourage future research to investigate specific mechanisms for the relationship between *expected* economic circumstances and satisfaction with family life, as theorized by the family stress model (Conger et al., 2010). Other studies have investigated the proposed mechanisms with respect to current economic circumstances and found confirmation for these (e.g. Conger et al., 2002; Mistry et al., 2008; Williams et al., 2015). However, the specific mechanisms how expected economic problems affect family

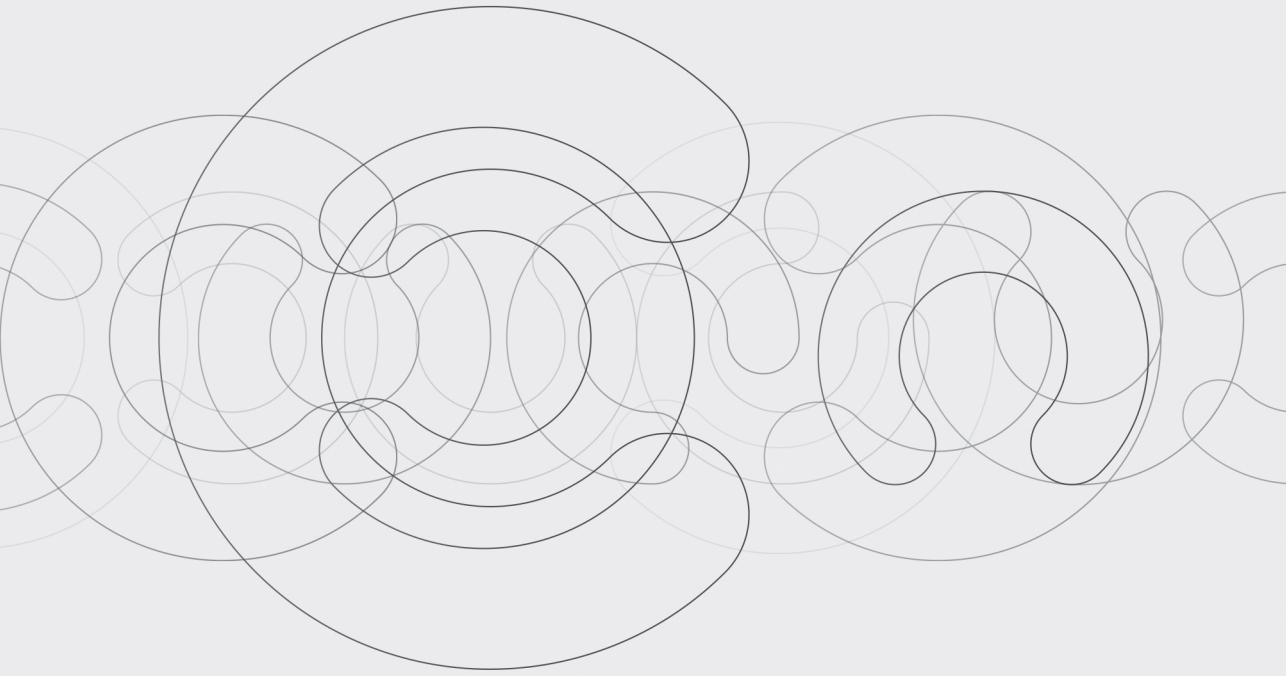
relationships are relatively unknown. Relatedly, in this study we were unable to explore reverse causation since we used cross-sectional data. Although previous longitudinal studies had similar conclusions regarding current economic hardship and family functioning (e.g. Neppl et al., 2016; Shim et al., 2017), further longitudinal examination is needed on *expected* economic circumstances and family functioning.

This study started by noting that people in Europe experienced more economic hardship as a result of recent economic crises in Europe (Eurofound, 2015). Our research showed that negative consequences of economic difficulties spill over to people's family life. In addition, not only people who actually experience a decline of income or job loss seem affected by the economic crisis; also people who expect to face income or job loss in the near future feel less satisfied with their family life. Therefore, it can be concluded that the negative consequences of economic crises for families are far more widespread than merely the individuals who lose income or employment.



5

Couples' job insecurity and relationship satisfaction in the Netherlands



* A slightly different version is currently under review at an international journal.
Co-authors are Gerbert Kraaykamp and Ellen Verbakel.

5.1 Introduction and research question

In current labor markets, many people feel insecure about whether their job will continue to exist (Balz, 2017). Subjective job insecurity almost doubled in just five years' time, from 18 percent in 2008 to 34 percent in 2013 in the Netherlands, the country under investigation (Statistics Netherlands, 2017). It dropped again after the financial crisis, but not to the pre-crisis level: 27 percent of Dutch employees still felt insecure about their job in 2015. Financial crises, but also more gradual developments of flexibilization and globalization are often held responsible for the increased levels of job insecurity (Balz, 2017; Lübke & Erlinghagen, 2014). Consequences of subjective job insecurity are not restricted to a person's working life; they may spill over to the family life and harm the quality of family relationships (Mauno et al., 2017). Work experiences spill over to the family because the stress from work often does not end when leaving for home, but continues and is brought into the home and the partner relationship (Repetti & Wang, 2017). Therefore, men and women who feel more insecure about their job generally experience more tension with their partner (Hughes & Galinsky, 1994) and are less satisfied with their relationship (Cheng, Mauno, & Lee, 2014b; Mauno & Kinnunen, 1999). Partner relationship quality is a prime factor for personal and child well-being and provides a buffer for dealing with adversities (e.g. Amato & Sobolewski, 2001; Proulx et al., 2007)**.** Studies like ours that bridge the work domain and family life domain are necessary to understand the wider impact of employment conditions. In this study, we investigate to what extent one's individual job insecurity and the partner's job insecurity affect the quality of the partner relationship.

People feel insecure in their job due to a wide range of factors, varying from job characteristics (e.g. contract type or expected lay-off), characteristics of the employer (e.g. organizational performance or reorganization), macro-economic conditions (e.g. unemployment or lack of employment protection policies) to personality (e.g. self-esteem) (Balz, 2017; Lübke & Erlinghagen, 2014; Muñoz de Bustillo & de Pedraza, 2010). These factors raise people's concerns about their job continuation (known as cognitive job insecurity), which leads to emotional reactions towards this perceived threat such as anxiety (known as affective job insecurity) (Jiang & Lavaysse, 2018). Previous studies on spillover effects have convincingly shown that people in insecure employment generally report lower quality relationships with their partner (Cheng et al., 2014b; Hughes & Galinsky, 1994; Hughes et al., 1992; Larson et al., 1994; Mauno et al., 2017; Mauno & Kinnunen, 1999, see also Chapter 4). What is not well-known is whether job insecurity of the *partner* affects one's personal perception of the relationship quality, a mechanism labelled crossover effects. Crossover effects are argued for because partners share a household implying that the job security of *both* partners provide financial well-being to the couple and protect the couple from financial hardship (Brülle, 2016). Recently, research showed that also partners' temporary employment negatively affects individuals' well-being (Inanc, 2018). However, regarding relationship outcomes, only Mauno and Kinnunen (1999)

investigated whether the partner's job insecurity makes people less satisfied with their partner relationship. They found no crossover effect of job insecurity, but their study unfortunately had to rely on cross-sectional data with a small sample size and sample selection (Mauno & Kinnunen, 1999). Thus, information on the influence of the crossover of job insecurity to the quality of the partner relationship is largely lacking. We try to fill this gap by this study.

The spillover and crossover of job insecurity to the partner relationship may be different for women than for men. Even though women are increasingly more involved in the labor market, both men and women still regard employment as primarily men's role, while women's primary role is caring and mothering (Johnston & Swanson, 2006; Thijs et al., 2017; Townsend, 2002). These traditional gender roles are reflected in Dutch labor market behavior. In general, men continue to provide most of the household income (Nieuwenhuis et al., 2017), and although women are relatively often employed, they often work part-time, whereas men are mostly full-time employed (European Commission, 2016). Since families more often rely on men's than on women's income and attach more value to men's employment, men's job insecurity may be more detrimental for couple relationships. Research on this issue is rare and inconsistent (Mauno et al., 2017). However, recent related work shows that partners' temporary employment has mostly similar influence on men's and women's well-being, as long as women do not have more stable employment than the male partner (Inanc, 2018). In order to increase our knowledge on this unresolved issue, we will study whether satisfaction with the partner relationship is differently affected by job insecurity of the male and female partner.

We also study differential effects by level of education. Education is a crucial stratifying social category in contemporary societies. It has been shown that job insecurity is more likely among the lower educated than the higher educated (Lübke & Erlinghagen, 2014; Muñoz de Bustillo & de Pedraza, 2010). If job insecurity is also more detrimental to the relationship quality of people with a lower education, that group would be doubly hit by job insecurity. It may be likely that job insecurity raises stronger negative affect among lower educated, as they are generally less likely to be reemployed and hence may perceive job loss as more strongly related to an outlook of long-term insecurity and unemployment (Berglund & Wallinder, 2015; Wolbers, 2000). Additionally, people with a lower education possess fewer financial resources, which gives them fewer possibilities to handle financial consequences of job loss (Eurofound, 2017). Because of these reasons there may be socioeconomic inequality in the transmission of job insecurity to the partner relationship. To the best of our knowledge, no previous research has investigated this educational gradient in the effects of job insecurities on the partner relationship.

The Netherlands provides an interesting case to study the consequences of job insecurity for couples. Similar to many other Europeans, many Dutch employees feel insecure in whether their job will continue to exist (Balz, 2017). The Netherlands has a high share of employees with temporary contracts compared to other European countries

(Eichhorst, Marx, & Wehner, 2017, see also Figure 1.3 in Chapter 1), and temporary employment is an important, though not the single, reason for job insecurity. Employees with temporary contracts typically enjoy lower levels of employment protection than their counterparts with a permanent contract. Many comparable European countries face such segmented labor markets (Eichhorst et al., 2017). By studying one of the European countries with a relative high share of employees with temporary contracts and high number of employees feeling insecure regarding their job continuation, our findings may be applicable to countries facing similar circumstances.

We build upon previous research in several ways. First, by studying both the spillover and crossover of job insecurity on one's relationship satisfaction. Second, by investigating whether the spillover and crossover effects are different for men and women. Third, by investigating whether the spillover and crossover effects are different for higher and lower educated people. Fourth, by using a dyadic longitudinal panel model in which we investigate differences between individuals (random effects) as well as changes over time within individuals (fixed effects). Examination of within-individual change may be interpreted as a stricter test of our expectations, and has to our knowledge not been done by previous studies. In this study, we pose the following research question: *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 this influence differ by gender and a person's educational attainment?* These questions will be answered using dyadic longitudinal data from the Dutch Longitudinal Internet Studies for the Social sciences (LISS) panel, comprising of 13,486 observations of 4,185 individuals in 2,114 couples.

5.2 Theoretical framework and hypotheses

Several theoretical notions guide our expectations. Our main hypotheses about the impact of job insecurity on the partner relationship are primarily based on the spill-over-crossover model (Bakker & Demerouti, 2013). Whether job insecurity of the male or the female partner has the largest impact is derived from ideas of gender role attitudes and relative income perspectives (Johnston & Swanson, 2006; Townsend, 2002), and whether job insecurity is more influential for people with lower versus higher education is investigated from a financial resource and employability perspective (Green, 2011; Silla, de Cuyper, Gracia, Peiró, & De Witte, 2009). Figure 5.1 depicts our conceptual theoretical model.

5.2.1 Spillover-crossover model

The spillover-crossover model posits that work experiences spill over to the home domain (Bakker & Demerouti, 2013). Especially high (emotional) demands at work deplete people's resources such as energy and emotional resources (Bakker & Demerouti, 2013). This lack of

resources may make that people feel more exhausted, and induce concentration and psychosomatic problems (Bakker & Demerouti, 2013). Therefore, depletion of resources leads to problems combining work and family life, to less psychological availability and support, and to more irritability (Danner-Vlaardingerbroek et al., 2013; Repetti & Wang, 2017). Similarly, when people are uncertain about their future economic situation and foresee economic pressure, they may become more distressed and anxious (Cheng, Mauno, & Lee, 2014a; Mantler et al., 2005). People's perceptions of job insecurity lead to emotional responses such as anxiety (Jiang & Lavaysse, 2018). Previous studies have shown that people who are insecure in their job have less energy and vigor, are less supportive of their partner, and are more negative in general (Cheng et al., 2014a; Jiang & Lavaysse, 2018; Larson et al., 1994; Mantler et al., 2005; Mauno & Kinnunen, 1999). These negative emotional states from the work sphere likely spillover to the family domain (known as spillover or intra-individual cross-domain transmission), and hence influence people's evaluation of the quality of the partner relationship (Cheng et al., 2014b; Mauno et al., 2017). Thus, we hypothesize: (Hypothesis 1) *The more insecure people feel about their job, the less satisfied they are with their partner relationship*.

The transmission of emotional states between the work and family sphere is not limited to individual transmission; one is also influenced by the experiences of one's partner (known as crossover or inter-individual cross-domain transmission). First, as noted before, job insecurity diminishes people's energy, vigor, and psychologically availability (Cheng et al., 2014a, 2014b; Danner-Vlaardingerbroek et al., 2013; Jiang & Lavaysse, 2018; Larson et al., 1994). If this happens to the partner, it likely has negative consequences for the relationship quality as assessed by the respondent due to lower-quality communication and lack of emotional availability of the partner. Second, a partner's job conditions may influence one's emotional state through empathic processes: The respondent feels distressed because the partner feels distressed (Bakker & Demerouti, 2013). Note that a negative spillover from job insecurity to a partner's satisfaction with the relationship, may also directly affect the relationship satisfaction of a respondent via that lower relationship satisfaction of the partner; one may become less satisfied with the partner relationship if the partner is also negative about it. We hypothesize that spillover and crossover of job insecurity on relationship satisfaction would occur when comparing different individuals as well as when assessing over-time change within individuals, resulting in our hypothesis: (Hypothesis 2) *The more insecure a partner feels about his or her job, the less satisfied people are with the partner relationship.*

5.2.2 Gender differences: gender role attitudes and income contribution

The spillover and crossover of job insecurity to the partner relationship may differ between men and women, due to persisting traditional gender role attitudes and men's higher relative contribution to household finances. Employment and the provider role have traditionally been strongly associated with men, whereas women were responsible for

care and domestic work (Johnston & Swanson, 2006; Townsend, 2002). This has led people to generally believe that men need to be able to financially provide for the family in order to be considered a good partner (Parker & Stepler, 2017) and that being a financial provider is important for men's identity and status (Townsend, 2002). These factors may influence how job insecurity affects the quality of the partner relationship. Indeed, De Witte (1999) showed that job insecurity led to lower mental well-being among men, but not among women (although not found by Cheng & Chan, 2008). This result suggests gendered spillover from job insecurity (albeit for mental well-being rather than relationship quality). There may also be gendered crossover of job insecurity; women may be disappointed in their male partner's inability to contribute to the household or inability to provide a secure income. Additionally, women may also become less satisfied with the relationship when job-insecure men are relatively more distressed. In contrast, women's job insecurity affects their well-being to a lesser extent (De Witte, 1999) and does not violate the male breadwinner ideal, possibly making her job insecurity less consequential for men's and women's relationship satisfaction.

Besides a cultural element, a financial element predicts a gendered response to job insecurity (albeit stemming in cultural aspects as well). Men continue to be employed more often than women in the Netherlands and for more hours (European Commission, 2016). In combination with other factors, men continue to contribute most to the household income in many Dutch couples (Nieuwenhuis et al., 2017). Therefore, in general the job of the male partner is more important for the financial position of the household than the job of the female partner. As a consequence, the potential loss of men's job may be perceived as more stressful than women's job insecurity. Because of these two reasons, we hypothesize: (Hypothesis 3a) *Individual job insecurity is more harmful for men's relationship satisfaction than women's.* (Hypothesis 3b) *Partner's job insecurity is more harmful for women's relationship satisfaction than men's.*

5.2.3 Educational differences: employability and resources

Education is an important social stratifier, as higher educated people typically have, among others, better employment positions, incomes, social resources and health. We argue that these advantages bring the higher educated better buffers that protect them from the negative consequences of job insecurity compared to the lower educated. The same level of objective job insecurity likely translates in less stress among high-educated people compared to low-educated people. Otherwise stated, the transmission of cognitive job insecurity may lead less strongly to affective job insecurity among the high-educated as opposed to low-educated people and hence to weaker repercussions for their relationship quality. More specifically, job insecurity is perceived as more stressful for lower educated people because they generally perceive themselves as less employable, and hence as having lower reemployment chances, than higher educated (Berglund & Wallinder, 2015). This perception is realistic since people with a lower education indeed

have a higher chance to become unemployed and their prospects to be reemployed are smaller compared to the higher educated (Wolbers, 2000). People who are more employable are found to be less influenced by job insecurity in their well-being (Green, 2011; Silla et al., 2009). In parallel, we expect that the higher educated will be less negatively influenced by job insecurity in their partner relationship.

Aside from perceived reemployment chances, actual financial resources likely affect how people react on job insecurity. 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. Adjusting the household expenditure after a loss of income may therefore be especially problematic for lower educated couples. Financial problems may lead to lower quality relationships due to stress, hostility, and emotional withdrawal (Conger et al., 2010), and the prospect of economic hardship likely leads to similar reactions (Mantler et al., 2005). So, because the lower educated are more financially vulnerable to job loss, expecting job loss may be especially detrimental for relationship quality of the lower educated. In sum, we hypothesize: (Hypothesis 4) *(a) Individual and (b) partner's job insecurity is more harmful for relationship satisfaction of the lower educated than the higher educated.*

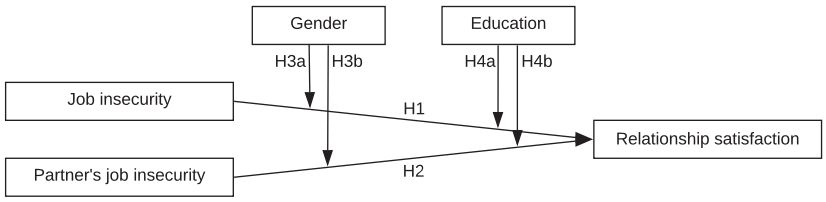


Figure 5.1 Conceptual theoretical model

5.3 Data and method

5.3.1 Data

To answer our questions we used the Dutch Longitudinal Internet Studies for the Social sciences (LISS) panel (Scherpenzeel, 2009, see also www.lissdata.nl) which started in late 2007. This online panel was based on a probability sample of households drawn for the Dutch population register and consisted of approximately 7,000 individuals in 4,500 household. Households were provided with a computer and Internet 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 panel

remained largely representative[12]. The survey consisted of rotating modules: each month panel members completed a different module, with core modules appearing about once a year. 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).

We selected people with a cohabiting different-sex partner, who were of working age (25 to 60), who were either employed, unemployed or unable to work due to health or illness, or were a homemaker. Furthermore, we selected people whose partner fitted the same criteria. We included both people with and without employment to not limit our study, and our conclusions, to dual-earner couples; 69.1 percent of the couples in our data were dual-earner couples, 28.4 percent were single-earner couples, and in 2.5 percent of the couples both partners were not employed. Some respondents separated from their partner during the panel's timeframe 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 dropped observations with the second relationship from our sample, resulting in a loss of 60 observations in total. Lastly, we selected people who had no missing value on our dependent variable, relationship satisfaction, leading to another loss of 210 observations. Our final sample consisted of 13,486 observations (6,753 male; 6,733 female) of 4,185 people (2,091 men; 2,094 women) in 2,114 relationships, and an average of 3.2 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 listwise deletion would strongly reduce the sample size: 15.3 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 also Young & Johnson, 2015). In total, 1.8 percent of the values were imputed. Table 5.1 shows descriptive information on all variables and the number of imputed values per variable.

5.3.2 Measurements

Relationship satisfaction was measured as 'how satisfied are you with your current relationship?' The answer categories ranged from zero ('entirely dissatisfied') to ten ('entirely satisfied'). Questions about satisfaction are more stable and have a specific object (here the partner relationship) and are less transient and diffuse than moods (for instance happiness with the relationship) (Ilies et al., 2009), and are widely used to investigate the quality of the partner relationship (e.g. Hardie et al., 2014). The correlation between the partner's relationship satisfaction is 0.496. Similar to many well-being

12 see https://www.lissdata.nl/about-panel/composition-and-response.

Table 5.1 Descriptive statistics of individual, partner, and relationship characteristics

			Men		Women	
			(N = 6,753)		(N = 6,733)	
	Nr. of values Imputed	Range	Mean/%	SD	Mean/%	SD
Relationship satisfaction	0	0-10	8.31	1.34	8.23	1.37
Individual's job position	1196					
Job is secure		0-1	18.13		14.71	
Job is bit secure		0-1	48.09		35.99	
Job is insecure		0-1	27.24		22.51	
Unemployed or unable to work		0-1	6.55		7.09	
Homemaker		0-1	na		19.71	
Partner's job position	1191					
Job is secure		0-1	14.62		18.20	
Job is bit secure		0-1	35.97		47.96	
Job is insecure		0-1	22.61		27.22	
Unemployed or unable to work		0-1	7.06		6.62	
Homemaker		0-1	19.74		na	
Individual's education (years)	0	4-16.5	11.28	3.10	10.92	2.97
Partner's education (years)	0	4-16.5	10.93	2.97	11.26	3.10
Age	0	25-60	45.29	8.98	43.20	9.11
Relationship duration	16	0-42	18.61	10.27	18.60	10.24
Marital Status	0					
Cohabiting		0-1	18.66		18.31	
Married		0-1	81.34		81.69	
Division of household labor	3					
Equal or man does more		0-1	37.04		25.95	
Wife does more		0-1	62.96		74.05	
Number of children	0					
None		0-1	33.23		33.11	
1 or 2 children		0-1	53.47		54.02	
3 or more children		0-1	13.30		12.88	

Source. LISS panel 2008-2015, 6,753 observations of 2,091 men, 6,733 observations of 2,094 women. Statistics are before mean centering. na = not applicable

measurements (Inanc, 2018), the scale was skewed with means of 8.3 (men) and 8.2 (women). Note that we may fail to observe some dissatisfied individuals, if relationship dissatisfaction is related to a depressed mood, which reduces the willingness to participate in surveys. We considered this question to be linear as do many studies (e.g. 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 robustness analyses section). This exercise led to largely similar conclusions.

People's *job insecurity* was derived from two questions, combining information on employment situation and – if employed – on job insecurity. The first question was what the main daily activity of a person was, and we distinguished three groups: employed, unemployed or unable to work due to illness, and homemakers. People who were employed were further 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 the answer categories ranged from one ('disagree entirely') to four ('agree entirely'). This measurement referred to cognitive job insecurity; the affective aspects of job insecurity were therefore only theoretically assumed. The two categories with the most job insecurity were combined because of limited number of cases in the group with highest job insecurity. This resulted in a variable *job insecurity* with five categories: (1) employed, job is secure, (2) employed, job is bit 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.

Individual and partner's *educational attainment* were measured using the numbers of years needed for an educational degree in the Dutch educational system[13]. Use of a single linear variable was advantageous for reasons of parsimony for our interaction-coefficients. We used the highest obtained education during the study period, therefore this variable is not time-varying.

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 household labor between partners (Fincham & Beach, 2010). We controlled for an individual's *age,* the *division of household labor* between partners (about equal versus the woman does more)[14], whether the couple was *married* or cohabited, the *duration of the relationship* (also squared), and the *number of children living in the household under 25 years of age* (none, one or two, or three or more). These factors are important predictors

13 Not finished primary education is 4 years, finished primary education is 6 years, intermediate secondary education (VMBO) is 7.25 years, intermediate vocational education (MBO) is 10.5 years, higher secondary education/preparatory university education (HAVO/VWO) is 11 years, higher vocational education (HBO) is 14 years, university is 16.5 years.

14 Asked with the question "How is the household work divided between you and your partner?" for four aspects of household labor: 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 .857) 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.

of relationship satisfaction, and possibly of job insecurity. The linear independent variables were mean-centered.

5.3.3 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, 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 from no job insecurity to insecurity is related to a change in relationship quality for that same individual. The advantage of fixed effects models is that they do not suffer from unobserved heterogeneity of stable characteristics, which strengthens causality claims. However, a disadvantage of fixed effects models compared to random effects models is the reduction of statistical power because changes within individuals are typically less common than differences between persons, possibly leading to falsely reject the hypotheses. Our analyses were run separately for men and women. We formally tested gender differences in the coefficients of interest on a pooled sample with interactions between gender and all variables. All significant differences ($p<0.1$) between men and women are indicated by bold coefficients in Tables 5.2 and 5.3. Because job insecurity often accumulates within couples (De Lange, Wolbers, & Ultee, 2013; Grotti & Scherer, 2014), we simultaneously included the job insecurity of the respondent and their partner.

In Table 5.2 (for men) and 5.3 (for women), we studied the effects of individual's and partner's job insecurity on their relationship satisfaction in random (Models 1a to 3a) and fixed effects models (Models 1b to 3b). Models 1 included the main effects of individual's and partner's job insecurity next to the control variables. In Models 2 we investigated whether the spillover effect of individual's job insecurity on relationship satisfaction differed by educational level of the respondent, and in Models 3 we studied whether the crossover effect of partner's job insecurity on relationship satisfaction differed by educational level of the partner.

5.4 Results

5.4.1 Relationship satisfaction and job insecurity

Model 1a in Table 5.2 shows 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 the presence of spillover and the absence of crossover effects. Compared to men who felt secure, men who were just a bit secure or who felt

insecure in their job, were significantly less satisfied with their partner relationship (b = -0.148 and b = -0.251 respectively). These effect sizes may seem relatively small, but the standard deviation of relationship satisfaction is relatively small as well. The sizes of the coefficients were about 11 (job is a bit secure) and 18 (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 = -0.222) compared to men who felt secure in their job. Partner's job insecurity did not affect men's relationship satisfaction. However, partner's unemployment or inability to work was associated with lower levels of relationship satisfaction among men (b = -0.165). These results were similar 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 with their relationship (b = -0.086 and -0.148). Men did not experience a decline in relationship satisfaction when they or their partners became unemployed or unable to work,.

Women appeared sensitive to their own as well as their partner's job insecurity when assessing their relationship satisfaction, providing evidence for spillover as well as crossover effects. In Table 5.3, our results from the random effects model (Model 1a) showed that women were less satisfied when they were a bit secure (b = -0.080) or insecure (b = -0.134) in their job compared to women who felt secure (which is about 6 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 secure job positions (b = -0.179) and female homemakers were similarly satisfied to women with secure jobs. In contrast to men, women appeared to be affected by their partners' job insecurity; women whose partner felt a bit secure (b = -0.082) or insecure (b = -0.164) rather than secure in his job were less satisfied with their relationship (6 and 12 percent of the standard deviation of relationship satisfaction). In assessing relationship quality, insecurity about husbands' job seems about equally important as insecurity about women's own job. Women were also less satisfied with the relationship if their male partner was unable to work or unemployed, compared to women whose partner had a secure job (b = -0.459). When we tested within-person variation in the relatively strict fixed effects model for women (Model 1b), evidence for the spillover effect weakened, whereas evidence for the crossover 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 husbands became insecure in their job (b = -0.111). A relatively slight reduction in male job security (from secure to a bit 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 = -0.291).

We also tested whether the coefficients discussed above differed between men and women ($p<0.1$). Gender differences in the influence of job insecurity on relationship

satisfaction where not significant; although some associations between job insecurity and relationship satisfaction were significant for men but not for women and vice versa, the gender difference were mostly not significant. The only significant difference we found was that the partner's unemployment or inability to work was more negatively related to lower relationship satisfaction among women than men (Model 1a and 1b).

Overall, we found confirmation for negative spillover of job insecurity on people's 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 about spillover effects was supported for men, and only partly supported for women. In 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 crossover effect of job insecurity existed; when men were more insecure, women were less satisfied with their partner relationship. Therefore, we found confirmation for Hypothesis 2 regarding crossover effects for women, but not for men. We assumed gender differences in the spillover and crossover of job insecurity in Hypothesis 3. Although we found some indication that individual's job insecurity was more negatively related to men's satisfaction, and the partner's job insecurity was more negative for women's relationship satisfaction, the null-hypothesis (no gender difference) cannot be rejected.

We also briefly discuss the associations between the control variables and relationship satisfaction in the random effects models (Model 1a in Table 5.2 and 5.3). People who cohabited, who were older, or had (young) children, were less satisfied with their relationship. Relationship duration had a curvilinear association with relationship satisfaction and women who did the majority of the household labor were less satisfied with the relationship. People who were higher educated were less satisfied with the relationship and men were less satisfied when their partner was higher educated, whereas women were more satisfied when their partner was higher educated.

Models 2a and 2b in Table 5.2 (for men) and Table 5.3 (for women) showed whether one's individual job insecurity was differently associated with relationship satisfaction for people with different levels of educational attainment. Among men, the results showed that the higher men were educated, the less men were negatively affected by their job insecurity, supporting the idea of buffering aspects that come with educational attainment. Having an insecure job was more negatively associated with relationship satisfaction among lower educated men than among the higher educated men (both in Model 2a with random effects and in Model 2b with fixed effects). Feeling that the job was a bit secure rather than secure was also (marginally) more detrimental for lower educated men's relationship satisfaction than for higher educated men in Model 2b, but not in Model 2a. A graphical presentation of the interaction effects is provided in Figure 5.2. For reasons of presentation,

the association between job insecurity and relationship satisfaction was depicted for men with the lowest and highest level of education in our sample. Higher and lower educated women were similarly affected by their personal job insecurity: almost none of the interaction-coefficients were significant (Model 2a and Model 2b). The exception was that change from being secure to a bit secure about one's job reduced the relationship quality (marginally) less strongly for higher educated women than for lower educated women (Model 2b). Figure 5.3 shows this results in a graphical fashion.

Model 3a and 3b in Table 5.2 and 5.3 show that the partner's job insecurity was similarly influential on one's relationship satisfaction irrespective of the partner's educational level: none of the interaction coefficients were significant.

In sum, we found confirmation for Hypothesis 3a for men, but not for women; the negative spillover from men's job insecurity to their relationship was stronger for lower educated men. We did not find confirmation for Hypothesis 3b where we expected that the negative crossover from the partner's job insecurity to one's relationship satisfaction was more apparent when the partner was lower educated.

5.4.2 Robustness analyses

The dependent variable was highly skewed and therefore, as mentioned before, other transformations and analyses may be considered. Here we (1) squared relationship satisfaction and (2) applied ordered logistic regression to deal with this skewedness (see Appendix 5 Tables A5.1, A5.2, and A5.3). These analyses led to similar conclusions, although some interaction-coefficients were no longer significant. The interaction between women's job insecurity and educational level for women's relationship satisfaction was not robust, as was the interaction between men feeling a bit secure, their educational level, and men's relationship satisfaction.

Furthermore, how people react towards job insecurity may depend on whether they are in a single- or dual-earner couple. The partner's employment may provide a buffer against poverty in case of job loss (Brülle, 2016; Oppenheimer, 1997), hence the spillover and crossover of job insecurity could be especially stressful when a couple was dependent on a single income. However, additional analyses (see Appendix 5 Table A5.4), suggested that the spillover of job insecurity to one's relationship satisfaction was rather similar for dual-earner and single-earner couples. One exception was that the negative crossover of men's job insecurity to women's relationship satisfaction seemed more salient for women in male single-earner households than for women in dual-earner households, but strong conclusions should be avoided because of the limited sample size in these analyses.

Additionally, partners are often similar in terms of job insecurity (De Lange et al., 2013; Grotti & Scherer, 2014)[15]. This accumulation of job insecurity could affect couples in different ways. On the one hand, the combined risk of job insecurity may be especially

15 In our data job insecurity also seems to accumulates within couples; $Chi^2 = 188.26$ in the male sample and 213.34 in the female sample.

Table 5.2 Men's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models

Men	Random effect models					
	Model 1a		Model 2a		Model 3a	
	B	SE	B	SE	B	SE
Individual's job insecurity (ref.=job is secure)						
Job is bit secure	-0.146 ***	0.043	-0.154 ***	0.044	-0.146 ***	0.043
Job is insecure	-0.246 ***	0.051	-0.256 ***	0.053	-0.246 ***	0.051
Unemployed or unable to work	-0.222 **	0.080	-0.224 **	0.080	-0.224 **	0.081
Partner's job insecurity (ref.=job is secure)						
Job is bit secure	-0.015	0.039	-0.014	0.039	-0.016	0.039
Job is insecure	-0.081	0.050	-0.080	0.050	-0.083	0.051
Unemployed or unable to work	**-0.165 ***	**0.080**	**-0.163 ***	**0.080**	**-0.167 ***	**0.080**
Homemaker	-0.057	0.062	-0.056	0.062	-0.063	0.065
Individual's education	-0.016 #	0.010	-0.032 *	0.012	-0.016 #	0.010
Partner's education	**-0.030 ****	**0.010**	**-0.030 ****	**0.010**	**-0.036 ***	**0.015**
Age	-0.020 ***	0.005	-0.020 ***	0.005	-0.020 ***	0.005
Relationship duration	-0.001	0.005	-0.001	0.005	-0.001	0.005
Relationship duration squared	0.001 **	0.000	0.001 **	0.000	0.001 **	0.000
Married *(ref.=cohabitation)*	0.321 ***	0.064	0.323 ***	0.064	0.321 ***	0.064
Household labor (ref.=equal or men does more)						
Wife does more	**0.059**	**0.040**	**0.058**	**0.040**	**0.059**	**0.040**
Number of children (ref.=none)						
1 or 2 children	**-0.085 #**	**0.050**	**-0.087 #**	**0.050**	**-0.086 #**	**0.050**
3 or more children	-0.178 *	0.078	-0.183 *	0.078	-0.180 *	0.078
Interactions						
*Individual's job insecurity * Own educ.*						
Job is bit secure * Education			0.012	0.011		
Job is insecure * Education			0.032 *	0.014		
Unempl. or unable to work * Educ.			0.026	0.024		
*Partner's job insecurity * Partner's educ.*						
Job is bit secure * Education					0.006	0.014
Job is insecure * Education					0.014	0.018
Unempl. or unable to work * Educ.					0.004	0.031
Homemaker * Education					0.001	0.021
Constant	8.210 ***	0.091	8.218 ***	0.091	8.211 ***	0.091
Sigma u	1.060		1.061		1.056	
Sigma e	0.844		0.844		0.844	

Source. LISS panel 2008-2015, 6,753 observations of 2,091 men. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001.
Bold is significant (p<0.1) difference between men and women

Fixed effect models						
	Model 1b		Model 2b		Model 3b	
	B	SE	B	SE	B	SE
	-0.086 #	0.046	-0.096 *	0.048	-0.085 #	0.046
	-0.148 **	0.054	-0.160 **	0.055	-0.148 **	0.054
	-0.036	0.093	-0.037	0.094	-0.032	0.094
	0.018	0.043	0.019	0.043	0.018	0.043
	-0.021	0.054	-0.020	0.054	-0.020	0.055
	-0.010	**0.095**	**-0.006**	**0.095**	**0.008**	**0.095**
	-0.132	0.083	-0.133	0.083	-0.128	0.083
	-0.086 **	0.030	-0.089 **	0.031	-0.087 **	0.030
	0.022	0.031	0.024	0.031	0.022	0.031
	0.001 #	0.000	0.001 #	0.000	0.001 #	0.000
	0.107	0.122	0.108	0.123	0.110	0.121
	0.064	**0.047**	**0.061**	**0.047**	**0.065**	**0.047**
	-0.039	0.068	-0.041	0.068	-0.040	0.068
	-0.224 *	0.107	-0.231 *	0.107	-0.220 *	0.107
			0.021 #	0.013		
			0.040 *	0.016		
			0.041	0.030		
					0.019	0.015
					0.018	0.021
					0.061	0.037
					0.029	0.032
	8.351 ***	0.145	8.363 ***	0.146	8.351 ***	0.144
	1.377		1.390		1.391	
	0.844		0.844		0.844	

Table 5.3 Women's relationship satisfaction and individual's and partner's job position, random (differences between people) and fixed (changes within people over time) effects models

Women	**Random effect models**								
	Model 1a			**Model 2a**			**Model 3a**		
	B		SE	B		SE	B		SE
Individual's job insecurity (ref.=secure)									
Job is bit secure	-0.080	*	0.041	-0.084	*	0.041	-0.079	#	0.041
Job is insecure	-0.134	*	0.056	-0.138	*	0.056	-0.134	*	0.056
Unemployed or unable to work	-0.179	*	0.085	-0.195	*	0.090	-0.180	*	0.085
Homemaker	-0.073		0.069	-0.065		0.071	-0.073		0.069
Partner's job insecurity *(ref.=secure)*									
Job is bit secure	-0.082	*	0.037	-0.082	*	0.037	-0.078	*	0.037
Job is insecure	-0.164	***	0.046	-0.165	***	0.046	-0.162	***	0.047
Unemployed or unable to work	**-0.459**	*******	**0.082**	**-0.458**	*******	**0.081**	**-0.441**	*******	**0.081**
Individual's education	-0.037	***	0.011	-0.056	***	0.016	-0.037	***	0.011
Partner's education	**0.018**	**#**	**0.010**	**0.018**	**#**	**0.010**	**0.022**	**#**	**0.013**
Age	-0.017	***	0.005	-0.017	***	0.005	-0.017	***	0.005
Relationship duration	-0.005		0.005	-0.004		0.005	-0.004		0.005
Relationship duration SQ	0.001	***	0.000	0.001	***	0.000	0.001	***	0.000
Married *(ref.=cohabitation)*	0.328	***	0.065	0.324	***	0.065	0.328	***	0.065
Household labor (ref.=equal or men does more)									
Wife does more	**-0.110**	******	**0.038**	**-0.110**	******	**0.039**	**-0.110**	******	**0.038**
Number of children (ref.=none)									
1 or 2 children	**-0.265**	*******	**0.047**	**-0.266**	*******	**0.047**	**-0.266**	*******	**0.047**
3 or more children	-0.208	**	0.080	-0.210	**	0.080	-0.209	**	0.080
Interactions									
Individual's job insecurity * Own education									
Job is bit secure * Education				0.023		0.015			
Job is insecure * Education				0.027		0.018			
Unemp. or unable to work*Education				-0.002		0.034			
Homemaker * Education				0.027		0.023			
Partner's job insecurity *Partner's educ.									
Job is bit secure * Education							-0.010		0.011
Job is insecure * Education							0.002		0.015
Unemp. or unable to work*Education							0.012		0.025
Constant	8.257	***	0.095	8.265	***	0.095	8.255	***	0.095
Sigma u	1.117			1.117			1.118		
Sigma e	0.833			0.833			0.833		

Source. LISS panel 2008-2015, 6,733 observations of 2,094 women. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001.
Bold is significant (p<0.1) difference between men and women

Fixed effect models								
Model 1b			Model 2b			Model 3b		
B		SE	B		SE	B		SE
-0.021		0.044	-0.025		0.044	-0.020		0.044
-0.035		0.059	-0.039		0.059	-0.035		0.059
0.031		0.095	0.026		0.099	0.028		0.095
0.033		0.104	0.001		0.103	0.030		0.104
-0.059		0.039	-0.059		0.039	-0.056		0.040
-0.111	*	0.051	-0.111	*	0.051	-0.108	*	0.052
-0.291	****	**0.096**	**-0.292**	****	**0.096**	**-0.268**	****	**0.100**
-0.015		0.021	-0.016		0.021	-0.015		0.021
-0.041	#	0.023	-0.041	#	0.022	-0.041	#	0.023
0.001	**	0.000	0.001	**	0.000	0.001	**	0.000
0.138		0.113	0.127		0.113	0.142		0.113
-0.096	*****	**0.045**	**-0.097**	*****	**0.045**	**-0.096**	*****	**0.045**
-0.159	*	0.062	-0.159	*	0.062	-0.159	*	0.062
-0.152		0.108	-0.156		0.109	-0.154		0.109
			0.030	#	0.016			
			0.027		0.020			
			-0.001		0.039			
			-0.020		0.031			
						-0.012		0.012
						0.000		0.016
						0.019		0.030
8.239	***	0.142	8.250	***	0.143	8.234	***	0.142
1.390			1.401			1.389		
0.833			0.833			0.833		

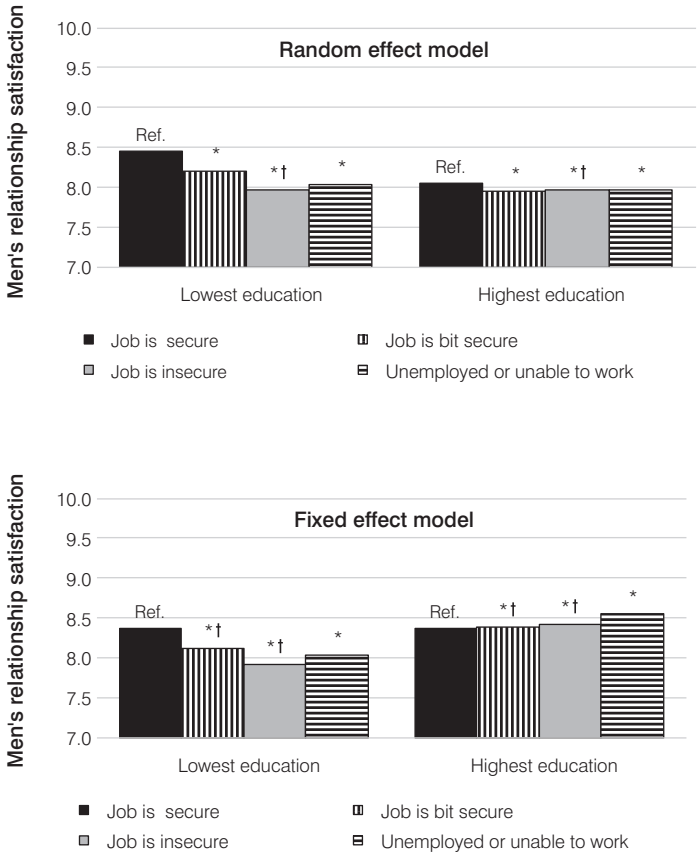


Figure 5.2 The relationship between own job insecurity and men's relationship satisfaction calculated for men with the lowest and highest level of education.

* = main effect differs significantly from job is secure. † = interaction-effect with own educational attainment is significant[16]

16 Numbers calculated based on the coefficients in Models 2a and 2b in Table 2 (which were the models with significant interactions between job insecurity and education for men).

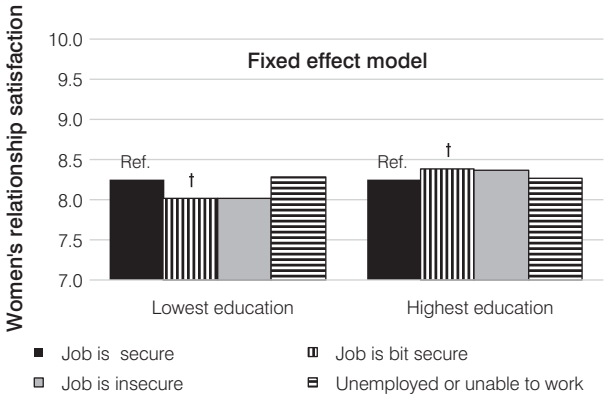


Figure 5.3 The relationship between own job insecurity and women's relationship satisfaction calculated for women with the lowest and highest level of education.

* = main effect differs significantly from job is secure. † = interaction-effect with own educational attainment is significant[17]

stressful for the relationship due to the possibility of losing all household earnings. On the other hand, according to the role collaboration perspective similar experiences may lead to greater understanding (Rogers, 2004). Therefore, due to more understanding and emotional support between partners, job insecurity could be less consequential for the relationship when both partners experienced job insecurity. We found support for neither explanation in additional analyses (Appendix 5 Table A5.5); the job insecurity of a person did not affect the partner relationship differently when the partner also felt insecure in his/her job.

17 Numbers calculated based on the coefficients in Models 2b in Table 3 (which was the only model with significant interactions between job insecurity and education for women).

5.5 Conclusion and discussion

Labor market development such as the flexibilization and globalization make people feel insecure about the continuation of their job (Balz, 2017; Lübke & Erlinghagen, 2014). This study focused on possible consequences of job insecurity for a couple. We argued, first, that feelings of insecurity in the work domain have negative spillover effects to the family domain, most notably the partner relationship. Second, we argued that a household perspective is needed because people are also sensitive to job insecurity of their partner (crossover effects). Third, we argued that the negative consequences of job insecurity for relationship satisfaction may be gender-dependent and stronger for people with fewer resources (moderations with gender and educational attainment).

Applying random effects analyses, this study showed that people were less satisfied with their partner relationship when they felt insecure about their job continuation. This confirmation of the negative spillover effect corroborated previous research 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, see also Chapter 4). Our relatively strict within-person analyses also showed that negative spillover only held for men. Men became less satisfied with their relationship when their jobs became more insecure; for women this was not the case. Possibly other factors, such as personality characteristics, lead to both feelings of job insecurity and lower relationship satisfaction. The non-significant within-person findings for women could be due to statistical power issues as well. Overall, our results indicated that men and women were less satisfied with their relationship when they felt insecure in their job, although this finding was more strongly supported for men than for women.

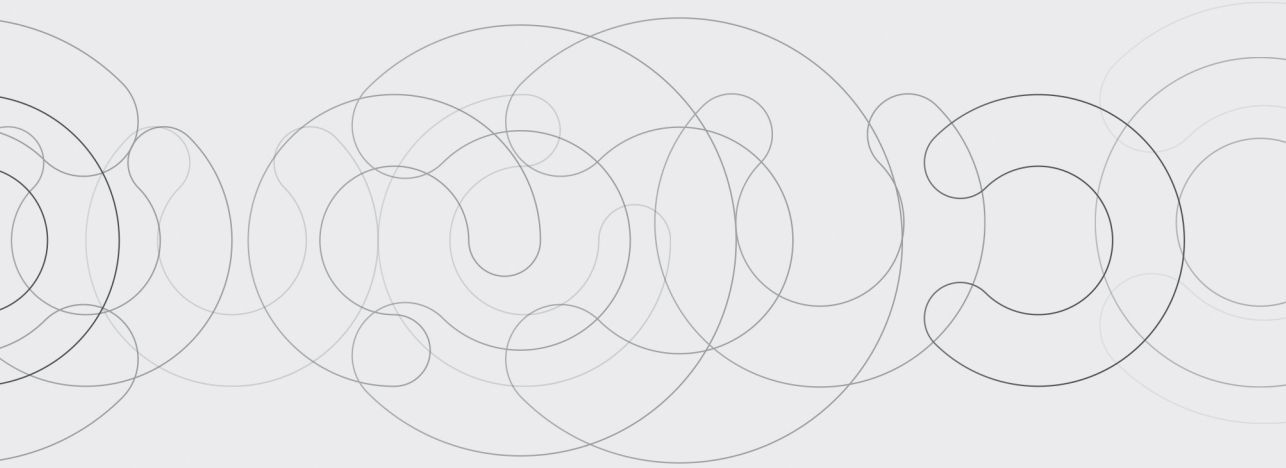
Building on previous research, our results showed that the partner's job insecurity also affected women's relationship satisfaction, but not men's. Women became less satisfied with their relationship when their male partner felt more insecure about his job continuation. This important crossover-effect highlights the dyadic system of partner relationships; relationships are not only affected by individual circumstances, but by the partner's circumstances as well. It also emphasizes the gender differences in Dutch couples. Couples in the Netherlands often primary rely on men's earnings, while women predominantly work part-time (European Commission, 2016). This traditional behavioral pattern in combination with a still widespread traditional gender ideology (Thijs et al., 2017), may explain why women's perception with the partner relationship is influenced by their male partners' job insecurity, but not vice versa. Possibly job insecurity has an even more gendered influence on relationships in counties with a lower female labor participation or gender traditionalism, however this remains a topic for future investigation.

Not every person appeared to be equally affected by job insecurity. Especially lower educated men became less satisfied with their relationship satisfaction when they felt insecure about their jobs. Since the lower educated generally also experience more job

insecurity than the higher educated (Muñoz de Bustillo & de Pedraza, 2010), our finding suggests they are doubly hit by job insecurity. Macro-economic processes which induce feelings of job insecurity may especially harm the partner relationships of the lower educated, while people with a higher education are not or hardly affected. Here, education is used as a broad indicator for various mechanisms including employability and financial resources and future studies may want to aim to differentiate these specific mechanisms.

While this research extended previous knowledge on the partner relationship and job insecurity by simultaneously testing the spillover and crossover of job insecurity in couples, by investigating inequality in the impact of job insecurity, and by using longitudinal data, some points for improvement remain. Foremost, our indicators of job insecurity and relationship satisfaction would benefit from more precise measurement instruments. Possibly, our limited findings of crossover effects for men and spillover effects for women stem from these less sensitive instruments. Notably, we used a measurement of cognitive job insecurity, but a measurement of affective job insecurity may also be suited to investigate spillover and crossover of job insecurity (Jiang & Lavaysse, 2018). We would also have appreciated a stronger instrument for relationship quality, especially an instrument with a less skewed distribution. Nevertheless, our confidence in our results was strengthened by robustness tests with alternative transformations. Lastly, while we tested whether relationship satisfaction of higher and lower educated was differently affected by their job insecurity, other studies may want to consider specific aspects of this mechanism such as income, the household division of earnings, gender role attitudes, or employability to explain these differences (such as been done for well-being by Green, 2011; Silla et al., 2009). Finally, our data did not allow for investigating the influence of the duration of job insecurity on relationship satisfaction, which could be a promising direction for future research.

All in all, our results indicated that the developments on the labor market which have led to widespread feelings of job insecurity, such as the flexibilization and economic crises, negatively influenced couples' relationships. People were less satisfied with their partner relationship when they were insecure about their job continuation and women's satisfaction was negatively affected by their partners' job insecurity. Importantly, especially lower educated men seemed vulnerable to these macro-economic developments. They are not only in more precarious, insecure labor market positions, lowering their relationship quality, but appeared also to be more strongly negatively affected by these insecure labor market positions in terms of relationship satisfaction.



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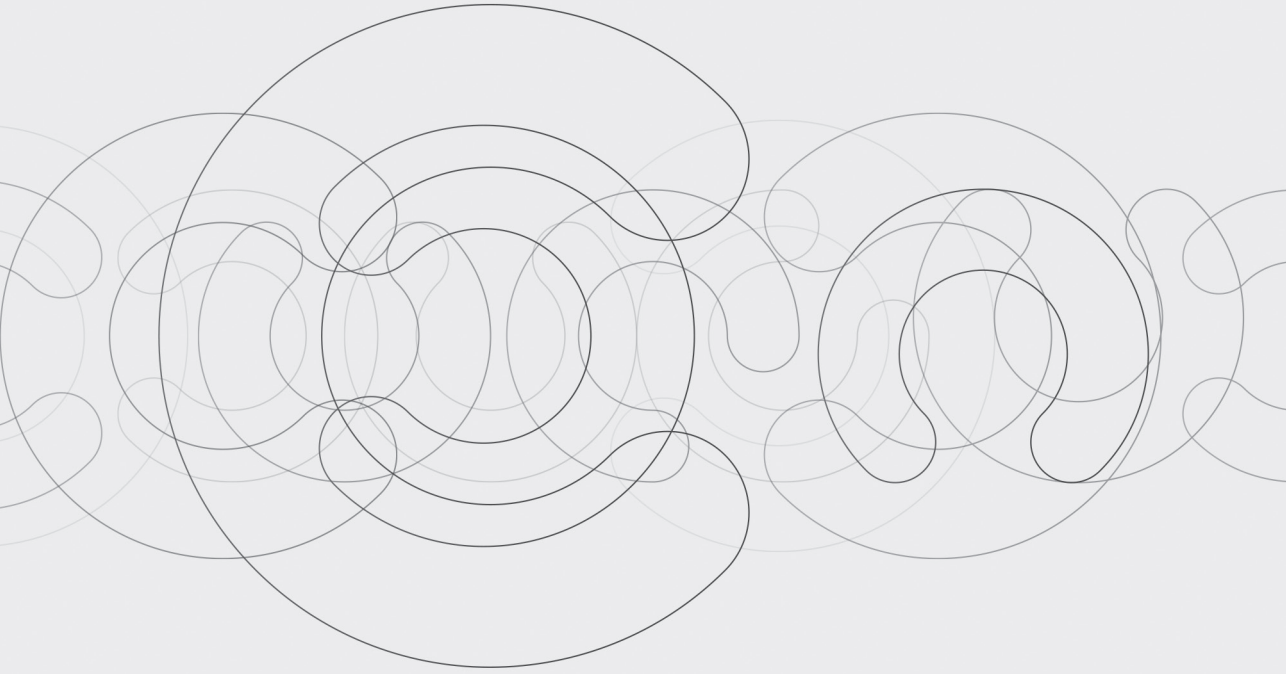

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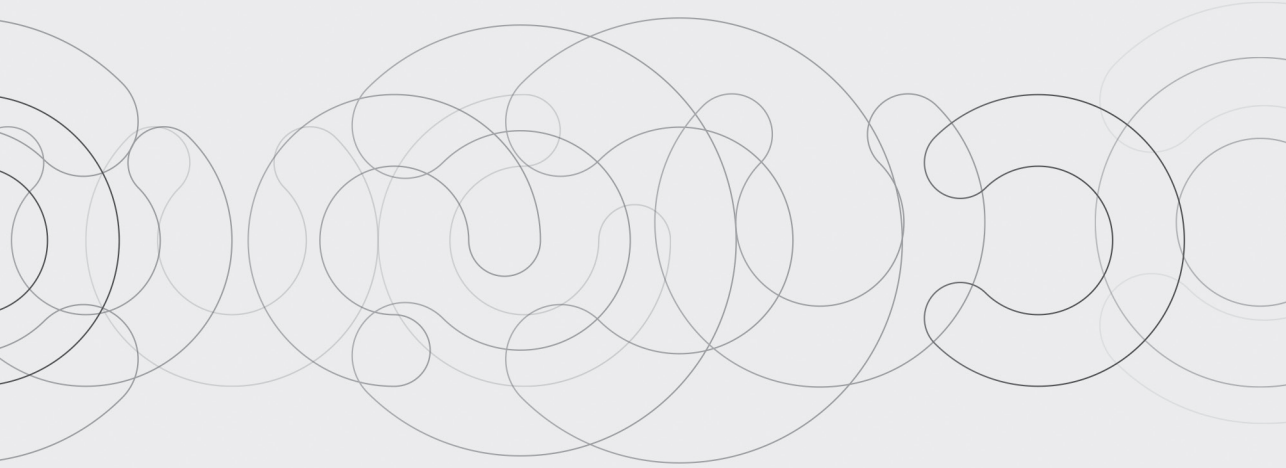
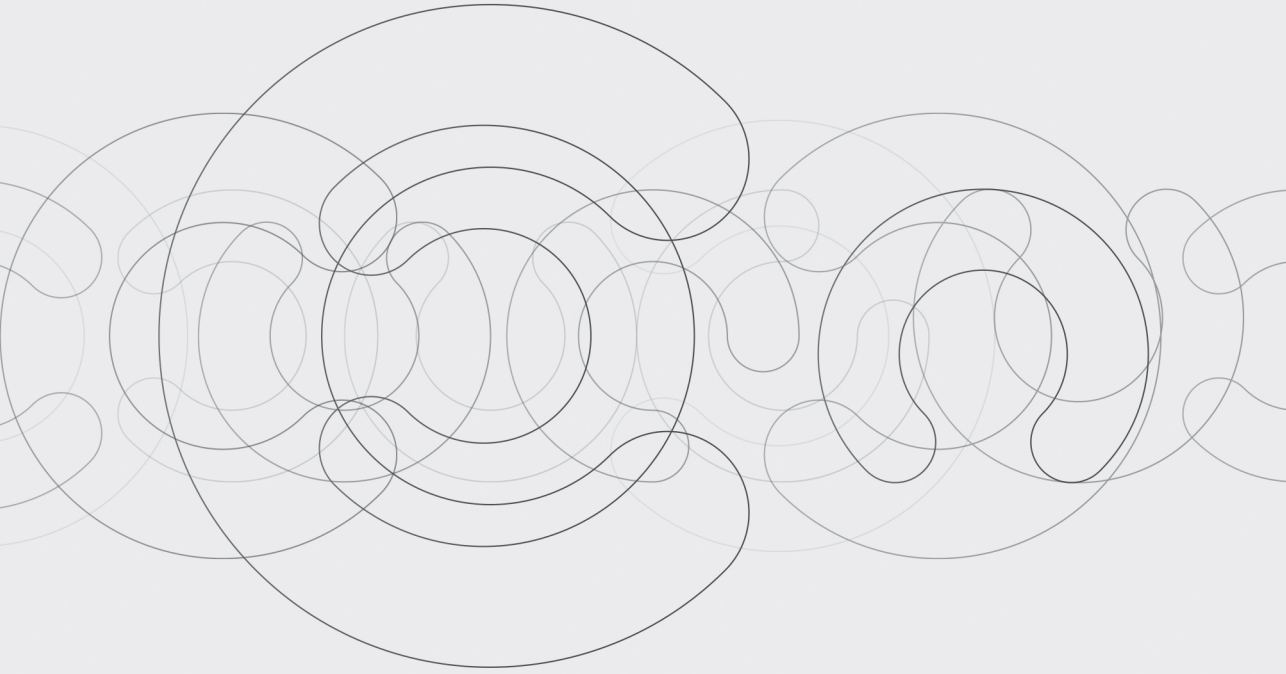


Appendices



Appendix Chapter 1

Table A1.1 Partner's non-response depending on respondent's relationship satisfaction

		Respondent's Relationship satisfaction	
		Mean	SD
Partner's relationship satisfaction	*Valid answer*	8.27	1.36
	Missing	8.12	1.52

Source: LISS data 2008-2015 (see also Chapter 5). Only people who indicated they were in a (cohabiting or married) partner relationship and were aged 25 to 60 were included. Difference in means is significant at p<0.001

Appendix Chapter 2

Table A2.1 Model statistics of models presented in Table 2.2 and 2.3

	Model 1		Model 2		Model 3	
	Estimate	SE	Estimate	SE	Estimate	SE
Variance intercept men	72112.676	1252.510	78846.113	1459.646	78801.191	1458.676
Variance inter. women	81153.062	1411.392	87580.210	1604.998	87568.762	1604.938
Covariance intercepts	0.175	0.012	0.115	0.012	0.115	0.012
Covariance relationship-wave	44230.756	2277.794	14128.774	1156.344	14126.930	1156.201
-2 Log Likelihood	310472.277		306368.882		306362.370	
	Model 4		**Model 5**		**Model 6**	
	Estimate	SE	Estimate	SE	Estimate	SE
Variance intercept men	78741.325	1458.025	78869.576	1460.836	78833.914	1459.787
Variance intercept women	87558.822	1604.776	87575.887	1605.319	87533.120	1604.066
Covariance intercepts	0.115	0.012	0.116	0.012	0.115	0.012
Covariance relationship-wave	14112.472	1156.060	14097.773	1156.208	14106.190	1156.256
-2 Log Likelihood	306359.128		306363.674		306362.915	

Source: BHPS

Table A2.2 Influence of specialization and equity on relationship satisfaction, separate for people with and without children

	Only people without children											
	Men						Women					
	Model 2		Model 3		Model 4		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Equity	-19.753	22.349	-21.625	22.423	-9.618	22.828	-17.476	23.138	-16.826	23.187	-17.416	23.138
Specialization	-12.211	16.091	-16.237	16.577	-7.440	16.233	4.680	16.755	4.767	16.757	5.349	16.860
Egalitarian gender role attit. (EGRA)	7.799	5.518	7.191	5.550	7.473	5.520	1.891	5.216	2.142	5.246	1.832	5.217
Specialization * EGRA			-14.684	14.571					5.894	13.961		
Equity * EGRA					34.702 *	15.945					6.202	15.597
	Only people with children											
	Men						Women					
	Model 2		Model 3		Model 4		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Equity	0.714	21.283	-3.652	21.356	6.556	21.457	-28.007	21.365	-30.100	21.441	-27.947	21.364
Specialization	-4.477	14.458	-10.376	14.673	0.026	14.614	-6.177	14.598	-6.905	14.611	-4.042	14.787
Egalitarian gender role atti. (EGRA)	-5.872	4.969	-4.785	4.990	-5.439	4.972	1.348	4.856	1.876	4.877	1.577	4.865
Specialization * EGRA			-30.636 *	13.159					-15.335	13.178		
Equity * EGRA					31.387 *	15.036					14.319	14.802

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models are controlled for all other variables listed in Table 2.2

Table A2.3 Influence of specialization and equity on relationship satisfaction, separate for people with children aged 0 to 4, 5 to 11 and 12 to 18

	Only people where youngest child is 0 to 4 years old											
	Men						Women					
	Model 2		Model 3		Model 4		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Specialization	-1.509	22.750	-5.240	22.901	3.551	23.108	16.203	23.393	16.307	23.406	17.358	23.769
Equity	30.810	35.374	26.198	35.513	35.016	35.526	35.459	36.181	35.720	36.381	35.194	36.181
Egalitarian gender role att. (EGRA)	-0.452	7.863	1.388	7.984	0.229	7.883	-2.478	8.114	-2.499	8.223	-2.288	8.150
Specialization * EGRA			-28.431	20.695	30.715	24.595			0.965	21.445		
Equity * EGRA					30.715	24.595					8.120	25.823
	Only people where youngest child is 5 to 11 years old											
	Men						Women					
	Model 2		Model 3		Model 4		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Specialization	24.551	22.363	21.842	22.739	30.517	22.650	-15.876	22.469	-17.723	22.479	-13.635	22.806
Equity	-4.614	32.488	-6.897	32.664	3.017	32.804	-57.016	32.304	-62.842	32.424	-56.733	32.310
Egalitarian gender role att. (EGRA)	-13.209	7.415	-12.764	7.440	-12.804	7.414	-0.288	7.255	1.183	7.291	-0.195	7.262
Specialization * EGRA			-14.318	21.204					-41.520 *	20.848		
Equity * EGRA					37.742	23.540					13.638	23.206
	Only people where youngest child is 12 to 18 years old											
	Men						Women					
	Model 2		Model 3		Model 4		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Specialization	-40.491	31.396	-65.960	32.526	-36.006	31.703	-14.956	30.880	-16.081	30.926	-10.556	31.245
Equity	-11.946	42.979	-22.584	43.039	-3.235	43.790	-53.142	42.069	-54.666	42.204	-52.200	42.049
Egalitarian gender role att. (EGRA)	-1.173	9.910	-1.605	9.897	-0.943	9.916	9.117	9.067	9.119	9.077	9.457	9.071
Specialization * EGRA			-85.535 **	29.479					-7.168	27.070		
Equity * EGRA					31.384	30.285					24.401	26.820

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models are controlled for all other variables listed in Table 2.2

Table A2.4 Influence of specialization and equity on relationship satisfaction, only for people in couples where both are employed or homemaker

	Men					
	Model 1		**Model 2**		**Model 3**	
	B	SE	B	SE	B	SE
Specialization	-19.859	13.936	-3.223	12.730	-9.141	13.013
Equity	2.579	16.166	3.734	18.207	0.445	18.264
Children in house. (ref.=none)						
Youngest child 0-4			-52.238 ***	11.215	-52.812 ***	11.215
Youngest child 5-11			-32.864 **	10.650	-32.837 **	10.648
Youngest child 12-18			-48.054 ***	11.497	-47.834 ***	11.494
Egalitarian gender role attitudes			0.043	4.060	-0.152	4.060
Interactions						
Specialization * EGRA					-24.390 *	11.197
Equity * EGRA						
Specialization * Youngest child 0-4						
Specialization * Youngest child 5-11						
Specialization * Youngest child 12-18						
Equity * Youngest child 0-4						
Equity * Youngest child 5-11						
Equity * Youngest child 12-18						
	Women					
	Model 1		**Model 2**		**Model 3**	
	B	SE	B	SE	B	SE
Specialization	-18.958	14.644	-3.067	12.987	-3.383	13.007
Equity	-4.907	16.950	-29.618	18.403	-30.285	18.484
Children in house. (ref.=none)						
Youngest child 0-4			-37.054 **	11.550	-37.215 **	11.558
Youngest child 5-11			-29.970 **	10.972	-30.033 **	10.974
Youngest child 12-18			-45.301 ***	11.901	-45.301 ***	11.901
Egalitarian gender role attitudes			2.069	3.932	2.020	3.934
Interactions						
Specialization * EGRA					-4.731	11.088
Equity * EGRA						
Specialization * Youngest child 0-4						
Specialization * Youngest child 5-11						
Specialization * Youngest child 12-18						
Equity * Youngest child 0-4						
Equity * Youngest child 5-11						
Equity * Youngest child 12-18						

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models 2 to 6 are controlled for all other variables listed in Table 2.2

Model 4		Model 5		Model 6	
B	SE	B	SE	B	SE
1.172	12.823	-29.537	19.941	-0.683	12.844
11.546	18.411	-0.371	18.320	22.051	23.452
-53.110 ***	11.214	-49.826 ***	11.326	-50.575 ***	11.297
-33.134 **	10.646	-31.529 **	10.727	-30.398 **	10.748
-48.104 ***	11.491	-46.982 ***	11.595	-48.089 ***	11.621
-1.291	4.085	0.447	4.068	0.297	4.067
35.329 *	12.620				
		35.936	28.388		
		64.354 *	28.730		
		-5.120	36.082		
				-27.758	32.707
				-57.397	30.598
				13.397	35.170

Model 4		Model 5		Model 6	
B	SE	B	SE	B	SE
-0.519	13.107	-22.460	20.302	-1.049	13.105
-29.773	18.401	-31.816	18.523	-9.721	23.779
-37.613 **	11.556	-34.805 **	11.675	-35.661 **	11.635
-30.322 **	10.974	-28.610 **	11.058	-27.488 *	11.070
-45.418 ***	11.900	-43.393 ***	12.001	-43.208 ***	12.021
1.346	3.955	2.246	3.945	2.103	3.938
19.234	12.376				
		20.572	29.029		
		35.512	29.368		
		38.627	36.985		
				11.401	33.376
				-67.131 *	31.188
				-41.433	36.008

Table A2.5 Influence of specialization and equity on relationship satisfaction, only for people in couples where both partners combined were employed for at least 35 hours per week

	Men					
	Model 1		**Model 2**		**Model 3**	
	B	SE	B	SE	B	SE
Specialization	-3.670	16.351	24.907	15.952	21.956	16.010
Equity	16.963	21.404	18.589	21.006	15.412	21.056
Children in house. (ref.=none)						
Youngest child 0-4			-64.695 ***	11.677	-65.933 ***	11.689
Youngest child 5-11			-47.025 ***	10.981	-47.483 ***	10.979
Youngest child 12-18			-46.956 ***	11.929	-47.024 ***	11.925
Egalitarian gender role atti.			2.551	4.225	3.254	4.238
Interactions						
Specialization * EGRA					-23.976 *	11.516
Equity * EGRA						
Sp. * Youngest child 0-4						
Sp. * Youngest child 5-11						
Sp. * Youngest child 12-18						
Equity * Youngest child 0-4						
Equity * Youngest child 5-11						
Equity * Youngest child 12-18						
	Women					
	Model 1		**Model 2**		**Model 3**	
	B	SE	B	SE	B	SE
Specialization	-2.422	17.174	27.120	16.401	27.205	16.416
Equity	0.261	22.495	-9.088	21.471	-8.834	21.543
Children in house. (ref.=none)						
Youngest child 0-4			-39.984 ***	12.089	-39.913 ***	12.120
Youngest child 5-11			-43.471 ***	11.365	-43.416 ***	11.371
Youngest child 12-18			-46.304 ***	12.406	-46.257 ***	12.407
Egalitarian gender role atti.			2.974	4.086	2.976	4.102
Interactions						
Specialization * EGRA					0.215	11.366
Equity * EGRA						
Sp. * Youngest child 0-4						
Sp. * Youngest child 5-11						
Sp. * Youngest child 12-18						
Equity * Youngest child 0-4						
Equity * Youngest child 5-11						
Equity * Youngest child 12-18						

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models 2 to 6 are controlled for all other variables listed in Table 2.2

Model 4		Model 5		Model 6	
B	SE	B	SE	B	SE
26.588	15.965	11.327	21.036	24.943	15.969
19.907	21.008	16.211	21.118	12.209	25.812
-65.390 ***	11.678	-63.135 ***	11.797	-68.524 ***	12.197
-47.348 ***	10.978	-48.268 ***	11.055	-47.329 ***	11.562
-47.032 ***	11.925	-46.488 ***	11.941	-44.948 ***	12.763
-0.482	4.438	2.745	4.242	2.386	4.229
34.326 *	15.363				
		9.748	29.430		
		44.024	29.149		
		6.113	36.785		
				46.313	41.320
				3.585	38.467
				-16.924	44.000

Model 4		Model 5		Model 6	
B	SE	B	SE	B	SE
28.048	16.413	18.551	21.619	28.328	16.419
-13.913	21.714	-9.808	21.586	2.650	26.456
-40.850 ***	12.103	-40.243 ***	12.213	-43.277 ***	12.639
-43.835 ***	11.367	-42.276 ***	11.447	-39.501 ***	11.950
-46.299 ***	12.405	-45.958 ***	12.420	-39.382 **	13.233
1.075	4.279	3.147	4.108	2.810	4.095
22.717	15.118				
		18.870	30.304		
		-0.684	30.008		
		38.929	37.992		
				40.018	42.596
				-45.619	39.526
				-67.989	45.348

Table A2.6 the influence of specialization on relationship satisfaction, dependent on if it is traditional or non-traditional specialization

	Men		Women	
	B	SE	B	SE
Specialization (degree)	-3.398	11.592	-0.620	11.856
Non-traditional Specialization *(ref.=traditional specialization)*	-12.571	8.811	-15.267	9.056
Specialization * Non-traditional Specialization	-13.285	25.341	-6.735	25.966

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models are controlled for all other variables listed in Table 2.2. Non-traditional specialization is defined as couples where women are more specialized in employment than men ((E_M/ (E_M + H_M)) < (E_W/ (E_W + H_W)). Couples where both partners are exactly equally specialized could not be categorized as traditional or non-traditional specialization and are therefore not included in the analyses.

Table A2.7 the influence of equity on relationship satisfaction, dependent on if someone is under or over benefiting

	Men		Women	
	B	SE	B	SE
Equity (degree)	-6.824	17.799	-25.616	26.343
Under-benefiting *(ref.= over-benefiting)*	-1.896	7.644	-9.157	7.796
Equity * Under-benefiting	29.169	26.322	-3.632	26.895

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models are controlled for all other variables listed in Table 2.2. Under-benefiting was defined as contributing more hours to the household needs than the partner. Observation where couples hours-equity was exactly 1 were omitted from the analyses, since the dummy for under-benefiting could not be made.

Table A2.8 Relationship satisfaction as binomial variable. Influence of specialization and equity on relationship satisfaction, dependent on gender role attitudes and the presence of children

	Men					
	Model 2		**Model 3**		**Model 4**	
	B	SE	B	SE	B	SE
Specialization	-0.010	0.110	-0.092	0.113	0.054	0.112
Equity	0.059	0.160	0.018	0.160	0.168	0.161
Egalitarian gender role attitudes	0.032	0.039	0.039	0.039	0.043	0.039
Children in household (ref.=none)						
Youngest child 0-4	-0.460 ***	0.113	-0.472 ***	0.113	-0.481 ***	0.113
Youngest child 5-11	-0.455 ***	0.102	-0.461 ***	0.102	-0.465 ***	0.102
Youngest child 12-18	-0.475 ***	0.110	-0.481 ***	0.110	-0.482 ***	0.110
Interactions						
Specialization*Egalitarian gender role attitudes			-0.340 **	0.105		
Equity*Egalitarian gender role attitudes					0.462 ***	0.116
Specialization * Youngest child 0-4						
Specialization * Youngest child 5-11						
Specialization * Youngest child 12-18						
Equity * Youngest child 0-4						
Equity * Youngest child 5-11						
Equity * Youngest child 12-18						
	Women					
	Model 2		**Model 3**		**Model 4**	
	B	SE	B	SE	B	SE
Specialization	-0.025	0.104	-0.028	0.104	-0.006	0.106
Equity	-0.165	0.150	-0.173	0.150	-0.162	0.150
Egalitarian gender role attitudes	-0.014	0.035	-0.013	0.035	-0.011	0.035
Children in household (ref.=none)						
Youngest child 0-4	-0.466 ***	0.110	-0.468 ***	0.110	-0.469 ***	0.110
Youngest child 5-11	-0.422 ***	0.099	-0.423 ***	0.099	-0.425 ***	0.099
Youngest child 12-18	-0.576 ***	0.103	-0.576 ***	0.103	-0.576 ***	0.103
Interactions						
Specialization*Egalitarian gender role attitudes			-0.068	0.095		
Equity*Egalitarian gender role attitudes					0.138	0.106
Specialization * Youngest child 0-4						
Specialization * Youngest child 5-11						
Specialization * Youngest child 12-18						
Equity * Youngest child 0-4						
Equity * Youngest child 5-11						
Equity * Youngest child 12-18						

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models 2 to 6 are controlled for all other variables listed in Table 2.2. Analyses are on non-imputed data. Relationship satisfaction is coded as 1 to 5 = not satisfied (0), 6 and 7 = satisfied (1)

	Model 5		Model 6	
	B	SE	B	SE
	-0.093	0.175	-0.013	0.111
	0.053	0.160	0.050	0.214
	0.033	0.039	0.031	0.039
	-0.454 ***	0.113	-0.457 ***	0.113
	-0.454 ***	0.102	-0.456 ***	0.102
	-0.472 ***	0.110	-0.478 ***	0.110
	0.071	0.264		
	0.138	0.260		
	0.215	0.317		
			0.127	0.304
			0.008	0.278
			-0.126	0.318

	Model 5		Model 6	
	B	SE	B	SE
	0.112	0.162	-0.030	0.105
	-0.148	0.150	-0.196	0.198
	-0.016	0.035	-0.015	0.035
	-0.476 ***	0.110	-0.462 ***	0.110
	-0.419 ***	0.099	-0.425 ***	0.099
	-0.577 ***	0.104	-0.578 ***	0.104
	-0.140	0.251		
	-0.431	0.245		
	0.043	0.296		
			0.294	0.290
			0.009	0.265
			-0.191	0.296

Table A2.9 Difference in specialization and equity between couples who do and who don't break-up during the panel observation period

	Couple doesn't break-up		Couple breaks up		Difference
	Mean	SD	Mean	SD	T-value
Equity	0.662	0.314	0.644	0.323	1.951
Specialization	0.414	0.344	0.429	0.359	-1.422

Source: BHPS.

Table A2.10 Influence of specialization and equity on relationship satisfaction, dependent on whether the couple breaks-up during the panel observation period

	Men			Women		
	Model 2			Model 2		
	B		SE	B		SE
Break up	-137.197	***	16.523	-160.591	***	16.536
Equity	-5.575		15.949	-22.380		16.181
Specialization	-12.476		11.043	-8.379		11.255
Equity * Break up	-72.532		50.475	-43.717		51.134
Specialization * Break up	4.761		45.440	14.483		46.037

Source: BHPS. * p<0.05, ** p<0.01, *** p<0.001. Results based on two intercept model. Models 2 to 6 are controlled for all other variables listed in Table 2.2

Appendix Chapter 3

Table A3.1 The number of changes in relationships satisfaction and breadwinner arrangements

	Overall		Between		Within
Relationship Satisfaction	N	%	N	%	%
0	268	0.40	215	1.81	27.78
1	399	0.59	286	2.41	28.36
2	742	1.10	543	4.57	26.11
3	1016	1.50	746	6.27	25.08
4	1065	1.58	810	6.81	23.99
5	2414	3.58	1600	13.46	28.23
6	2951	4.37	1965	16.53	26.38
7	7402	10.96	3761	31.63	32.18
8	14320	21.21	5849	49.19	40.58
9	17134	25.38	6433	54.10	44.21
10	19804	29.33	6325	53.20	60.53
Total	67515	100	28533	239.97	41.67
	Overall		**Between**		**Within**
Breadwinner	N	%	N	%	%
Equal earner					
Equal earnings, both empl.	20508	30.38	6277	52.79	56.88
Both not employed	2155	3.19	985	8.28	58.76
Male breadwinner					
Both employed, man earned more	23980	35.52	6760	56.85	57.35
Man empl. woman unable to work	2360	3.50	1575	13.25	30.31
Man empl. woman homemaker	11186	16.57	3893	32.74	50.70
Female breadwinner					
Both empl. woman earned more	5361	7.94	2541	21.37	38.53
Woman empl. man unable to work	1510	2.24	970	8.16	35.92
Woman empl. man homemaker	455	0.67	223	1.88	38.36
Total	67515	100	23224	195.32	51.2

Source: HILDA 2001-2015

Table A3.2 Fixed effects regressions analysis of men and women's relationship satisfaction and women's relative earnings, not including employment differences between partners

	Men									
	Model 1			Model 2			Model 3			
	B		SE	B		SE	B		SE	
Breadwinner status										
Women earned more	Ref.			Ref.			Ref.			
Earned about the same	0.070	*	0.036	0.083	*	0.035	0.084	*	0.035	
Man earned more	0.026		0.040	0.059		0.039	0.060		0.039	
Interactions										
Earned about the same * EGRA							0.051		0.062	
Man earned more * EGRA							**0.031**		**0.069**	
	Women									
	Model 1			**Model 2**			**Model 3**			
	B		SE	B		SE	B		SE	
Breadwinner status										
Women earned more	Ref.			Ref.			Ref.			
Earned about the same	0.094	*	0.038	0.122	**	0.038	0.129	**	0.039	
Man earned more	0.010		0.041	0.082	*	0.041	0.098	*	0.042	
Interactions										
Earned about the same * EGRA							-0.042		0.063	
Man earned more * EGRA							**-0.122**	#	**0.067**	

Note: EGRA = Egalitarian gender role attitudes. Model 2 and 3 are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

Table A3.3 Fixed effects regressions analysis of men and women's relationship satisfaction and employment differences between partners, not including partners' relative earnings

	Men					
	Model 1a			**Model 2a**		
	(ref: both fulltime employed)					
	B		SE	B		SE
Breadwinner in employment hours Equals						
Both fulltime employed	Ref.			Ref.		
Both part-time employed	-0.140	*	0.062	-0.079		0.070
Both not working	-0.040		0.098	**0.072**		**0.115**
Male Breadwinner						
Man full time, woman part-time	-0.074	*	0.029	-0.027		0.032
Man empl., woman unable to work	-0.109	#	0.059	-0.065		0.064
Man empl., women homemaker	0.063		0.040	0.087	#	0.051
Female Breadwinner						
Woman full time, man part-time	**0.049**		**0.060**	**0.085**		**0.060**
Woman empl., man unable to work	-0.242	**	0.082	**-0.110**		**0.091**
Woman empl., man homemaker	-0.076		0.173	0.081		0.177
	Women					
	Model 1a			**Model 2a**		
	(ref: both fulltime employed)					
	B		SE	B		SE
Breadwinner in employment hours Equals						
Both fulltime employed	Ref.			Ref.		
Both part-time employed	-0.171	**	0.065	-0.150	*	0.074
Both not working	-0.281	**	0.109	**-0.246**	#	**0.133**
Male Breadwinner						
Man full time, woman part-time	-0.143	***	0.032	-0.087	*	0.036
Man empl., woman unable to work	-0.155	*	0.067	-0.109		0.077
Man empl., women homemaker	0.044		0.045	0.066		0.059
Female Breadwinner						
Woman full time, man part-time	**-0.137**	*	0.069	**-0.145**	*	**0.069**
Woman empl., man unable to work	-0.375	***	0.089	**-0.341**	***	**0.100**
Woman empl., man homemaker	-0.083		0.167	-0.006		0.165

Note: Interactions between female breadwinning in employment hours and gender role attitudes were not significant, and therefore not presented. Model 2a and 2b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b			Model 2b		
	(Ref: man fulltime employed, woman part-time)					
	B		SE	B		SE
	0.074	*	0.029	0.027		0.032
	-0.067		0.061	-0.052		0.062
	0.034		0.096	0.099		0.106
	Ref.			Ref.		
	-0.036		0.056	-0.038		0.056
	0.136	***	0.034	0.114	**	0.038
	0.123	*	**0.062**	**0.112**	#	**0.061**
	-0.168	*	0.082	-0.083		0.085
	-0.002		0.172	0.108		0.175

	Model 1b			Model 2b		
	(ref: man fulltime employed, woman part-time)					
	B		SE	B		SE
	0.143	***	0.032	0.087	*	0.036
	-0.028		0.063	-0.063		0.065
	-0.137		0.107	-0.160		0.121
	Ref.			Ref.		
	-0.011		0.063	-0.022		0.066
	0.187	***	0.037	0.153	***	0.042
	0.007		**0.072**	**-0.058**		**0.069**
	-0.232	**	0.088	-0.254	**	0.092
	0.061		0.166	0.080		0.161

Table A3.4 Fixed effects regressions analysis of men's relationship satisfaction dependent on breadwinnership and gender role attitudes, defining female breadwinners as earning more than 50 percent of the household income

	Men								
	Model 1a			**Model 2a**			**Model 3a**		
	(ref: equal earner)								
	B		SE	B		SE	B		SE
Breadwinner									
Equal earner									
Equal earnings, both employed	Ref.			Ref.			Ref.		
Both not employed	-0.016		0.097	0.107		0.105	0.092		0.113
Male breadwinner									
Both employed, man earned more	-0.028		0.027	-0.003		0.026	-0.004		0.026
Man employed woman unable to work	-0.087		0.060	-0.044		0.060	-0.064		0.062
Man employed woman homemaker	0.089	*	0.039	0.112	**	0.042	0.112	**	0.042
Female breadwinner									
Both employed woman earned more	-0.041		0.029	-0.052	#	0.029	-0.053	#	0.029
Woman employed man unable to work	-0.230	**	0.082	-0.102		0.084	-0.101		0.083
Woman employed man homemaker	-0.073		0.171	0.075		0.172	0.095		0.189
Interactions:									
*Breadwinner * Gender role attitudes*									
Equal earnings, both employed * EGRA							Ref.		
Both not employed * EGRA							-0.115		0.169
Both empl., man earned more * EGRA							-0.024		0.050
Man employed, woman unable * EGRA							-0.187	#	0.100
Man employed, woman home. * EGRA							-0.031		0.079
Both empl., woman earn. more * EGRA							-0.003		0.053
Woman employed, man unable * EGRA							0.021		0.176
Woman empl., man homemaker * EGRA							-0.101		0.358

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b			Model 2b			Model 3b		
	(ref: male earns more)								
	B		SE	B		SE	B		SE
	0.028		0.027	0.003		0.026	0.004		0.026
	0.012		0.096	0.110		0.103	0.095		0.112
	Ref.			Ref.			Ref.		
	-0.058		0.056	-0.041		0.056	-0.061		0.058
	0.118	***	0.034	0.115	**	0.036	0.116	**	0.036
	-0.012		0.032	-0.049		0.032	-0.049		0.031
	-0.202	*	0.081	-0.099		0.083	-0.098		0.082
	-0.044		0.170	0.078		0.172	0.098		0.189
							0.024		0.050
							-0.090		0.169
							Ref.		
							-0.162	#	0.094
							-0.007		0.073
							0.021		0.059
							0.045		0.180
							-0.076		0.359

Table A3.5 Fixed effects regressions analysis of women's relationship satisfaction dependent on breadwinnership and gender role attitudes, defining female breadwinners as earning more than 50 percent of the household income

	Women					
	Model 1a		**Model 2a**		**Model 3a**	
	(ref: equal earner)					
	B	SE	B	SE	B	SE
Breadwinner						
Equal earner						
Equal earnings, both employed	Ref.		Ref.		Ref.	
Both not employed	-0.238 *	0.109	-0.120	0.118	-0.112	0.115
Male breadwinner						
Both employed, man earned more	-0.092 **	0.029	-0.048 #	0.028	-0.042	0.029
Man employed, woman unable to work	-0.126 #	0.068	-0.047	0.071	-0.049	0.071
Man employed, woman homemaker	0.079 #	0.044	0.131 **	0.047	0.134 **	0.048
Female breadwinner						
Both employed woman earned more	-0.029	0.031	-0.050 #	0.030	-0.050	0.032
Woman employed man unable to work	-0.336 ***	0.089	-0.253 **	0.092	-0.270 **	0.094
Woman employed man homemaker	-0.041	0.166	0.076	0.160	0.115	0.186
Interactions						
Equal earnings, both employed * EGRA					Ref.	
Both not employed * EGRA					0.048	0.174
Both employed, man earned more * EGRA					-0.048	0.050
Man employed, woman unable * EGRA					-0.179 #	0.100
Man employed, woman home. * EGRA					-0.003	0.072
Both employed, woman earn. more * EGRA					0.003	0.053
Woman employed, man unable * EGRA					0.179	0.169
Woman employed, man homemaker * EGRA					-0.084	0.265

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b		Model 2b		Model 3b	
	(ref: male earns more)					
	B	SE	B	SE	B	SE
	0.092 **	0.029	0.048 #	0.028	0.042	0.029
	-0.146	0.107	-0.073	0.115	-0.069	0.111
	Ref.		Ref.		Ref.	
	-0.034	0.063	0.000	0.066	-0.007	0.066
	0.171 ***	0.037	0.178 ***	0.040	0.177 ***	0.040
	0.063 #	0.033	-0.002	0.032	-0.008	0.033
	-0.244 **	0.088	-0.205 *	0.090	-0.227 *	0.092
	0.052	0.165	0.123	0.160	0.157	0.185
					0.048	0.050
					0.096	0.172
					Ref.	
					-0.131	0.093
					0.045	0.064
					0.051	0.056
					0.226	0.168
					-0.036	0.265

Table A3.6 Fixed effects regressions analysis of men's relationship satisfaction dependent on breadwinnership and gender role attitudes, defining relative earnings by hourly wage

	Men					
	Model 1a		**Model 2a**		**Model 3a**	
	(ref: equal earner)					
	B	SE	B	SE	B	SE
Breadwinner						
Equal earner						
Equal earnings, both employed	Ref.		Ref.		Ref.	
Both not employed	**0.005**	**0.098**	**0.089**	**0.104**	0.076	0.112
Male breadwinner						
Both employed, man earned more	**0.015**	**0.024**	0.014	0.023	0.014	0.023
Man employed, woman unable to work	-0.076	0.058	-0.058	0.058	-0.078	0.060
Man employed, woman homemaker	0.112 **	0.036	0.109 **	0.039	0.111 **	0.039
Female breadwinner						
Both employed woman earned more	-0.075 *	0.031	-0.064 *	0.030	-0.063 *	0.030
Woman employed man unable to work	-0.182 *	0.089	-0.069	0.093	**-0.064**	**0.093**
Woman employed man homemaker	0.170	0.160	0.257	0.157	0.301 *	0.138
Interactions						
Equal earnings, both employed * EGRA					Ref.	
Both not employed * EGRA					-0.099	0.172
Both empl., man earned more * EGRA					-0.023	0.047
Man employed, woman unable * EGRA					-0.186 *	0.093
Man employed, woman home. * EGRA					-0.019	0.072
Both empl., woman earn. more * EGRA					-0.010	0.054
Woman empl., man unable * EGRA					0.082	0.246
Woman empl., man home. * EGRA					-0.149	0.298

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b		Model 2b		Model 3b	
	(ref: male earns more)					
	B	SE	B	SE	B	SE
	-0.015	**0.024**	-0.014	0.023	-0.014	0.023
	-0.010	0.097	0.075	0.104	0.062	0.112
	Ref.		Ref.		Ref.	
	-0.091	**0.057**	**-0.073**	**0.057**	**-0.092**	**0.059**
	0.097 **	**0.035**	**0.095 ***	**0.038**	**0.096 ***	**0.038**
	-0.090 **	**0.033**	-0.078 *	0.032	-0.078 *	0.032
	-0.196 *	0.089	-0.083	0.093	-0.079	0.093
	0.155	0.161	0.243	0.157	0.287 *	0.139
					0.023	0.047
					-0.076	0.173
					Ref.	
					-0.164 #	0.096
					0.004	0.078
					0.012	0.063
					0.105	0.246
					-0.126	0.300

Table A3.6 Fixed effects regressions analysis of men's relationship satisfaction dependent on breadwinnership and gender role attitudes, defining relative earnings by hourly wage

	Men					
	Model 1a		**Model 2a**		**Model 3a**	
	(ref: equal earner)					
	B	SE	B	SE	B	SE
Breadwinner						
Equal earner						
Equal earnings, both employed	Ref.		Ref.		Ref.	
Both not employed	**0.005**	**0.098**	**0.089**	**0.104**	0.076	0.112
Male breadwinner						
Both employed, man earned more	**0.015**	**0.024**	0.014	0.023	0.014	0.023
Man employed, woman unable to work	-0.076	0.058	-0.058	0.058	-0.078	0.060
Man employed, woman homemaker	0.112 **	0.036	0.109 **	0.039	0.111 **	0.039
Female breadwinner						
Both employed woman earned more	-0.075 *	0.031	-0.064 *	0.030	-0.063 *	0.030
Woman employed man unable to work	-0.182 *	0.089	-0.069	0.093	**-0.064**	**0.093**
Woman employed man homemaker	0.170	0.160	0.257	0.157	0.301 *	0.138
Interactions						
Equal earnings, both employed * EGRA					Ref.	
Both not employed * EGRA					-0.099	0.172
Both empl., man earned more * EGRA					-0.023	0.047
Man employed, woman unable * EGRA					-0.186 *	0.093
Man employed, woman home. * EGRA					-0.019	0.072
Both empl., woman earn. more * EGRA					-0.010	0.054
Woman empl., man unable * EGRA					0.082	0.246
Woman empl., man home. * EGRA					-0.149	0.298

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b		Model 2b		Model 3b	
	(ref: male earns more)					
	B	SE	B	SE	B	SE
	-0.015	**0.024**	-0.014	0.023	-0.014	0.023
	-0.010	0.097	0.075	0.104	0.062	0.112
	Ref.		Ref.		Ref.	
	-0.091	**0.057**	**-0.073**	**0.057**	**-0.092**	**0.059**
	0.097 **	**0.035**	**0.095 ***	**0.038**	**0.096 ***	**0.038**
	-0.090 **	**0.033**	-0.078 *	0.032	-0.078 *	0.032
	-0.196 *	0.089	-0.083	0.093	-0.079	0.093
	0.155	0.161	0.243	0.157	0.287 *	0.139
					0.023	0.047
					-0.076	0.173
					Ref.	
					-0.164 #	0.096
					0.004	0.078
					0.012	0.063
					0.105	0.246
					-0.126	0.300

Table A3.7 Fixed effects regressions analysis of women's relationship satisfaction dependent on breadwinnership and gender role attitudes, defining relative earnings by hourly wage

	Women					
	Model 1a		**Model 2a**		**Model 3a**	
	(ref: equal earner)					
	B	SE	B	SE	B	SE
Breadwinner						
Equal earner						
Equal earnings, both employed	Ref.		Ref.		Ref.	
Both not employed	**-0.381 ***	**0.190**	**-0.289**	**0.193**	-0.281	0.193
Male breadwinner						
Both employed, man earned more	**-0.059 ***	**0.027**	-0.030	0.025	-0.025	0.026
Man employed, woman unable to work	0.020	0.072	0.063	0.074	0.075	0.075
Man employed, woman homemaker	0.163 ***	0.045	0.178 ***	0.045	0.179 ***	0.047
Female breadwinner						
Both employed woman earned more	-0.019	0.029	-0.041	0.028	-0.035	0.029
Woman employed man unable to work	-0.337 ***	0.094	-0.265 **	0.094	**-0.291 ** **	**0.097**
Woman employed man homemaker	-0.032	0.175	0.075	0.166	0.088	0.193
Interactions						
Equal earnings, both employed * EGRA					Ref.	
Both not employed * EGRA					0.364	0.261
Both empl., man earned more * EGRA					-0.068	0.048
Man employed, woman unable * EGRA					-0.132	0.127
Man employed, woman home. * EGRA					0.048	0.090
Both empl., woman earn. more * EGRA					-0.031	0.052
Woman empl., man unable * EGRA					0.332 #	0.180
Woman empl., man home. * EGRA					0.030	0.288

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b		Model 2b		Model 3b	
	(ref: male earns more)					
	B	SE	B	SE	B	SE
	0.059 *	**0.027**	0.030	0.025	0.025	0.026
	-0.322 #	0.190	-0.259	0.192	-0.257	0.191
	Ref.		Ref.		Ref.	
	0.079	**0.071**	**0.093**	**0.073**	**0.099**	**0.074**
	0.222 ***	**0.043**	**0.208 *****	**0.043**	**0.204 *****	**0.044**
	0.040	**0.034**	-0.010	0.033	-0.010	0.033
	-0.278 **	0.095	-0.235 *	0.095	-0.267 **	0.097
	0.027	0.174	0.105	0.166	0.113	0.193
					0.068	0.048
					0.431 #	0.259
					Ref.	
					-0.065	0.125
					0.116	0.084
					0.037	0.058
					0.400 *	0.180
					0.098	0.288

Table A3.8 Fixed effects regressions analysis of men's relationship satisfaction dependent on breadwinnership and gender role attitudes, separating the unable to work into unemployed or unable to work due to sickness or disability

	Men					
	Model 1a		**Model 2a**		**Model 3a**	
	(ref: equal earner)					
	B	SE	B	SE	B	SE
Breadwinner						
Equal earners						
Equal earnings, both employed	Ref.		Ref.		Ref.	
Both not employed	**-0.015**	**0.096**	0.114	0.104	0.100	0.112
Male breadwinner						
Both employed, men earned more	**-0.022**	**0.025**	0.005	0.025	0.005	0.025
Man employed, woman unemployed	-0.060	0.064	-0.035	0.064	-0.054	0.065
Man employed, woman sick	-0.157	0.121	-0.044	0.119	-0.067	0.133
Man employed, woman homemaker	0.095 *	0.038	0.119 **	0.042	0.120 **	0.041
Female breadwinner						
Both employed, women earned more	-0.064 #	0.038	-0.079 *	0.038	-0.081 *	0.038
Woman employed, man unemployed	-0.214 *	0.088	-0.102	0.091	-0.105	0.091
Woman employed., man sick	**-0.256 #**	**0.150**	**-0.081**	**0.149**	**-0.065**	**0.146**
Woman employed, man homemaker	-0.070	0.170	0.077	0.172	0.096	0.189
Interactions						
Equal earnings, both employed * EGRA					Ref.	
Both not employed * EGRA					-0.127	0.163
Both empl., men earned more * EGRA					-0.037	0.048
Man empl., woman unempl. * EGRA					-0.207 #	0.106
Man employed, woman sick * EGRA					-0.180	0.196
Man empl., woman homemaker * EGRA					-0.045	0.076
Both empl., women earn. more * EGRA					-0.081	0.066
Woman empl., man unempl. * EGRA					-0.034	0.172
Woman employed., man sick * EGRA					0.071	0.376
Woman empl., man homemaker* EGRA					-0.136	0.358

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b		Model 2b		Model 3b	
	(ref: male earns more)					
	B	SE	B	SE	B	SE
	0.022	**0.025**	-0.005	0.025	-0.005	0.025
	0.007	0.095	0.110	0.102	0.095	0.111
	Ref.		Ref.		Ref.	
	-0.038	0.060	-0.040	0.060	-0.058	0.061
	-0.135	0.121	-0.048	0.119	-0.072	0.133
	0.118 ***	0.034	0.115 **	0.036	0.116 **	0.036
	-0.041	0.042	-0.083 *	0.042	-0.085 *	0.042
	-0.191 *	0.088	-0.107	0.090	-0.110	0.090
	-0.234	**0.150**	**-0.086**	**0.149**	**-0.070**	**0.146**
	-0.047	0.170	0.072	0.172	0.091	0.189
					0.037	0.048
					-0.090	0.165
					Ref.	
					-0.170 #	0.102
					-0.143	0.196
					-0.008	0.073
					-0.044	0.073
					0.003	0.174
					0.108	0.380
					-0.099	0.359

Table A3.9 Fixed effects regressions analysis of women's relationship satisfaction dependent on breadwinnership and gender role attitudes, separating the unable to work into unemployed or unable to work due to sickness or disability

	Women					
	Model 1a		**Model 2a**		**Model 3a**	
	(ref: equal earner)					
	B	SE	B	SE	B	SE
Breadwinner						
Equal earners						
Equal earnings, both employed	Ref.		Ref.		Ref.	
Both not employed	**-0.262 ***	**0.108**	-0.138	0.117	-0.129	0.114
Male breadwinner						
Both employed, men earned more	**-0.092 *****	**0.028**	-0.045 #	0.027	-0.040	0.027
Man employed, woman unemployed	-0.123 #	0.068	-0.070	0.071	-0.072	0.071
Man employed, woman sick	-0.150	0.161	0.035	0.161	0.033	0.160
Man employed, woman homemaker	0.077 #	0.043	0.131 **	0.046	0.134 **	0.046
Female breadwinner						
Both employed, women earned more	-0.072 #	0.039	-0.100 **	0.039	-0.105 **	0.040
Woman employed, man unemployed	-0.225 *	0.099	-0.153	0.102	-0.184 #	0.107
Woman employed, man sick	**-0.625 *****	**0.153**	**-0.507 *****	**0.152**	**-0.509 *****	**0.152**
Woman employed, man homemaker	-0.045	0.166	0.072	0.160	0.108	0.186
Interactions						
Equal earnings, both empl. * EGRA					Ref.	
Both not employed * EGRA					0.041	0.168
Both empl., men earn. more * EGRA					-0.045	0.047
Man empl., woman unempl. * EGRA					-0.176 #	0.102
Man employed, woman sick * EGRA					-0.013	0.309
Man employed, woman home. * EGRA					0.000	0.070
Both empl., women earn. more * EGRA					0.033	0.064
Woman empl., man unempl. * EGRA					0.224	0.188
Woman employed, man sick * EGRA					-0.167	0.234
Woman employed, man home. * EGRA					-0.070	0.264

Source: HILDA 2001-2015. Interactions between female breadwinning and gender role attitudes were not significant. Model 2a, 2b, 3a, and 3b are controlled for all other variables listed in Table 3.2 and 3.3. Egalitarian gender role attitudes, Couple's work hours, Household labor hours , men's share of household labor, financial prosperity, household income, number of children in the different age groups, self-rated health, and partner's self-rated health were centered at their mean. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<.1) differences between men and women.

	Model 1b		Model 2b		Model 3b	
	(ref: male earns more)					
	B	SE	B	SE	B	SE
	0.092 * **	**0.028**	0.045 #	0.027	0.040	0.027
	-0.170	0.107	-0.094	0.115	-0.089	0.112
	Ref.		Ref.		Ref.	
	-0.031	0.064	-0.025	0.066	-0.032	0.066
	-0.058	0.161	0.080	0.160	0.073	0.159
	0.169 ***	0.037	0.175 ***	0.040	0.174 ***	0.040
	0.020	0.042	-0.055	0.042	-0.065	0.043
	-0.132	0.099	-0.108	0.101	-0.143	0.105
	-0.533 * **	**0.153**	**-0.462 ** **	**0.152**	**-0.469 ** **	**0.152**
	0.047	0.166	0.117	0.160	0.148	0.186
					0.045	0.047
					0.085	0.168
					Ref.	
					-0.132	0.097
					0.032	0.308
					0.045	0.064
					0.077	0.070
					0.269	0.187
					-0.123	0.233
					-0.025	0.265

Appendix Chapter 4

Table A4.1 Descriptive statistics of satisfaction with family life and country characteristics per country

	Mean Satisfaction with family life	Change Unemployment % 2008-2011	Social Protection Expenditure	GDP per capita	N Total Sample	N Employed sample
Austria	8.57	0.5	28.2	51.12	384	350
Belgium	8.23	0.1	28.4	47.70	313	267
Bulgaria	8.05	5.6	16.1	7.75	278	232
Croatia	8.75	5.1	20.0	14.54	302	220
Cyprus	9.18	4.1	20.5	31.84	432	270
Czech republic	8.08	2.2	19.5	21.66	408	367
Denmark	9.00	4.0	31.2	61.30	361	333
Estonia	8.35	7.0	15.5	17.45	237	201
Finland	8.80	1.5	28.0	50.79	325	309
France	8.49	1.8	30.7	43.81	792	686
Germany	8.47	-1.7	27.3	45.94	890	704
Greece	8.33	10.1	29.1	25.87	320	219
Hungary	8.50	3.3	21.5	14.03	274	238
Iceland	9.02	4.2	23.7	45.97	481	450
Ireland	8.73	8.3	21.9	52.83	398	271
Italy	8.12	1.7	27.3	38.36	841	613
Latvia	8.26	8.5	14.9	13.78	261	203
Lithuania	8.61	9.7	16.2	14.37	292	236
Luxembourg	8.68	-0.1	21.9	113.24	405	337
Malta	8.64	0.7	18.0	22.35	373	256
Netherlands	8.10	2.0	28.2	53.54	377	326
Poland	7.98	2.5	18.1	13.89	686	532
Portugal	8.42	5.1	24.2	23.19	298	226
Romania	8.95	1.6	16.2	9.20	379	290
Slovakia	8.31	4.0	17.4	18.14	324	295
Slovenia	8.54	3.9	24.1	24.98	289	250
Spain	8.49	10.3	24.9	31.83	538	337
Sweden	8.85	1.8	27.7	59.59	308	291
Turkey	8.13	-0.8	12.9	10.58	781	293
UK	8.46	2.2	28.3	41.02	686	575

Sources: EQLS 2012, Eurostat. Mean Satisfaction with family is mean satisfaction in the total sample.

Table A4.2 Variances for the interaction models between economic hardship and the presence of children in the household and the change in unemployment in Table 4.3

	Model 5		Model 6		Model 7		Model 8		Model 9	
	Full sample		Full sample		Full sample		Full sample		Employed sample	
	B	SE	B	SE	B	SE	B	SE	B	SE
Variance										
Residual	2.578	0.032	2.578	0.032	2.577	0.032	2.577	0.032	2.362	0.033
Country	0.079	0.022	0.079	0.022	0.079	0.022	0.079	0.022	0.069	0.020
R^2 (S&B)		0.039		0.039		0.039		0.039		0.033
Log likelihood		49405.634		49405.809		49402.696		49399.873		37699.741
	Model 10		**Model 11**		**Model 12**		**Model 13**		**Model 14**	
	Full sample		**Full sample**		**Full sample**		**Full sample**		**Employed sample**	
	B	SE	B	SE	B	SE	B	SE	B	SE
Variance										
Residual	2.567	0.032	2.577	0.032	2.574	0.032	2.570	0.032	2.365	0.033
Financial hardship	0.008	0.003								
Unemployment			0.016	0.021						
Partner unemployment					0.083	0.056				
Better financial future							0.019	0.017		
Worse financial future							0.025	0.019		
Country	0.072	0.021	0.077	0.022	0.077	0.022	0.077	0.025	0.069	0.020
R^2 (S&B)		0.045		0.040		0.041		0.042		0.032
Log likelihood		49377.128		49405.139		49400.518		49393.427		37710.911

Source EQLS 2012. Results based on multilevel models; N=13,013 for the full sample, N=10,177 for the only employed sample, across 30 countries. R2 (S&B) is the explained variance as calculated by Snijder's and Boskes' method (see LaHuis et al., 2014).

Table A4.3 Negative biomial models, relationship satisfaction is reversed. The influence of economic hardship on satisfaction with family life

	Model 1		Model 2	
	Full sample		Only employed	
	B	SE	B	SE
Intercept	0.428 ***	0.048	0.358 ***	0.052
Current economic hardship				
Financial hardship	0.117 ***	0.009	0.115 ***	0.011
Unemployed *(ref.=not)*	0.095 **	0.036		
Partner unemployed *(ref.=not)*	0.055	0.041	0.032	0.053
Expected economic hardship				
Expected financial situation (ref.=same)				
Better	-0.096 ***	0.028	-0.087 **	0.032
Worse	0.132 ***	0.024	0.102 ***	0.028
Expected job loss (ref.=unlikely)				
Neither likely nor unlikely			0.182 ***	0.031
Likely			0.082 *	0.034
Male *(ref.=female)*	-0.073 ***	0.020	-0.075 ***	0.023
Age	0.001	0.001	0.001	0.001
Education (ref.=less than upper secondary)				
Upper secondary	-0.019	0.027	0.000	0.033
Tertiary	-0.059 *	0.030	-0.039	0.035
Children under 25 (ref.=none)				
One or two	-0.054 *	0.022	-0.040	0.024
Three or more	-0.075 *	0.035	-0.096 *	0.042
Support	-0.353 ***	0.075	-0.285 **	0.093
Macro-level indicators				
Change in Unemployment %	-0.015	0.013	-0.010	0.013
GDP	-0.001	0.002	0.000	0.002
Social protection expenditure	0.002	0.009	0.005	0.009
Interaction coefficients				
Financial hardship * Better financial future				
Financial hardship * Worse financial future				
Financial hardship * Expected job loss, neither				
Financial hardship * Expected job loss, likely				

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001.

Model 3			Model 4		
Full sample			Only employed		
B		SE	B		SE
0.429	***	0.048	0.363	0.000	0.052
0.122	***	0.013	0.134	***	0.013
0.095	**	0.036			
0.056		0.041	0.034		0.053
-0.097	***	0.028	-0.086	**	0.032
0.125	***	0.025	0.104	***	0.028
			0.198	***	0.032
			0.084	*	0.036
-0.074	***	0.020	-0.076	***	0.023
0.001		0.001	0.001		0.001
-0.018		0.027	0.000		0.033
-0.058		0.030	-0.038		0.035
-0.055	*	0.022	-0.041		0.024
-0.075	*	0.035	-0.098	*	0.042
-0.350	***	0.075	-0.299	**	0.093
-0.015		0.013	-0.010		0.013
-0.001		0.002	0.000		0.002
0.002		0.009	0.005		0.009
-0.029		0.022			
0.004		0.019			
			-0.089	**	0.028
			-0.031		0.026

Table A4.4 Negative biomial models, relationship satisfaction is reversed. Current and expected economic hardship and dissatisfaction with family life, and the dependency on the presence of children and change in macro-level unemployment

	Model 5			**Model 10**		
Financial hardship (full sample)	B		SE	B		SE
Financial hardship	0.118	***	0.014	0.124	***	0.016
Children under 25 (ref.=none)						
One or two children	-0.053	*	0.022			
Three or more children	-0.086	*	0.036			
Financial hardship * One or two children	-0.010		0.017			
Financial hardship * Three or more children	0.030		0.026			
% Change Unemployment				-0.014		0.013
Financial hardship * % Change Unemployment				0.000		0.005
	Model 6			**Model 11**		
Respondent's unemployment (full sample)	B		SE	B		SE
Unemployed *(ref.=not)*	0.125	*	0.055	0.103	**	0.037
Children under 25 (ref.=none)						
One or two children	-0.050	*	0.023			
Three or more children	-0.065		0.037			
Unemployment * One or two children	-0.037		0.072			
Unemployment * Three or more children	-0.108		0.117			
% Change Unemployment				-0.014		0.013
Unemployment * % Change Unemployment				-0.011		0.010
	Model 7			**Model 12**		
Partner unemployment (full sample)	B		SE	B		SE
Partner Unemployed *(ref.=not)*	0.030		0.064	0.060		0.047
Children under 25 (ref.=none)						
One or two children	-0.054	*	0.022			
Three or more children	-0.091	*	0.022			
Partner unemployment * One or two children	-0.006		0.084			
Partner unemployment * Three or more children	0.023		0.129			
% Change Unemployment				-0.014		0.013
Partner unemployment * % Change Unemployment				-0.010		0.013

Table A4.4 Continued

	Model 8			Model 13		
Future financial situation (full sample)	B		SE	B		SE
Expected financial situation (ref.=same)						
Better financial future	-0.093	*	0.047	-0.106	**	0.035
Worse financial future	0.117	*	0.038	0.126	***	0.026
Children under 25 (ref.=none)						
One or two children	-0.044		0.030			
Three or more children	-0.173	***	0.051			
Better financial future * One or two children	-0.034		0.059			
Better financial future * Three or more children	0.143		0.090			
Worse financial future * One or two children	-0.012		0.048			
Worse financial future * Three or more children	0.198	**	0.077			
% Change Unemployment				-0.012		0.013
Better financial future * % Change Unemployment				-0.002		0.011
Worse financial future * % Change Unemployment				-0.005		0.008
	Model 9			**Model 14**		
Expected job loss (only employed sample)	B		SE	B		SE
Expected job loss (ref.=unlikely)						
Job loss, neither likely nor unlikely	0.286	***	0.048	0.179	***	0.031
Job loss, likely	0.084		0.055	0.082		0.034
Children under 25 (ref.=none)						
One or two children	-0.002		0.030			
Three or more children	-0.092		0.050			
Job loss, neither * One or two children	-0.187	**	0.063			
Job loss, neither * Three or more children	-0.092		0.118			
Job loss, likely * One or two children	-0.021		0.070			
Job loss, likely * Three or more children	0.084		0.113			
% Change Unemployment				-0.006		0.013
Job loss, neither * % Change Unemployment				-0.007		0.010
Job loss, likely * % Change Unemployment				-0.012		0.010

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. Results based on multilevel negative biomial models. Controlled for all other variables included in Table 4.2.

Table A4.5 The influence of economic hardship on satisfaction with family life, only including people aged 25 to 55

	Model 1		Model 2		Model 3		Model 4	
	Full sample		Only employed		Full sample		Only employed	
	B	SE	B	SE	B	SE	B	SE
Intercept	8.381 ***	0.069	8.504 ***	0.074	8.383 ***	0.069	8.495 ***	0.074
Current economic hardship								
Financial hardship	-0.168 ***	0.015	-0.152 ***	0.017	-0.163 ***	0.021	-0.179 ***	0.020
Unemployed *(ref.=not)*	-0.135 *	0.059			-0.133 *	0.059		
Partner unemployed *(ref.=not)*	-0.164 *	0.066	-0.079	0.080	-0.161 *	0.066	-0.086	0.080
Expected economic hardship								
Expected financial situation (ref.=same)								
Better	0.122 **	0.043	0.106 *	0.046	0.123 **	0.043	0.103 *	0.046
Worse	-0.257 ***	0.041	-0.191 ***	0.044	-0.237 ***	0.042	-0.194 ***	0.044
Expected job loss (ref.=unlikely)								
Neither likely nor unlikely			-0.215 ***	0.050			-0.247 ***	0.051
Likely			-0.133 **	0.053			-0.123 *	0.055
Interaction coefficients								
Financial hardship * Better financial future					-0.044	0.032		
Financial hardship * Worse financial future					0.035	0.034		
Financial hardship * Expected job loss, neither							0.152 ***	0.043
Financial hardship * Expected job loss, likely							0.024	0.041

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. All variables listed in Table 4.2 are included

Table A4.6 Current and expected economic hardship and satisfaction with family life, and the dependency on the presence of children and change in macro-level unemployment, only including people aged 25 to 55

	Model 5			Model 10		
Financial hardship (full sample)	B		SE	B		SE
Financial hardship	-0.160	***	0.025	-0.171	***	0.023
Children under 25 (ref.=none)						
One or two children	0.122	***	0.035			
Three or more children	0.159	**	0.053			
Financial hardship * One or two children	0.005		0.028			
Financial hardship * Three or more children	-0.071		0.040			
% Change Unemployment				0.030		0.017
Financial hardship * % Change Unemployment				0.001		0.007
	Model 6			**Model 11**		
Respondent's unemployment (full sample)	B		SE	B		SE
Unemployed *(ref.=not)*	-0.175	*	0.103	-0.158	*	0.062
Children under 25 (ref.=none)						
One or two children	0.123	***	0.037			
Three or more children	0.126	*	0.055			
Unemployment * One or two children	0.009		0.127			
Unemployment * Three or more children	0.248		0.183			
% Change Unemployment				0.031		0.017
Unemployment * % Change Unemployment				0.025		0.017
	Model 7			**Model 12**		
Partner unemployment (full sample)	B		SE	B		SE
Partner Unemployed *(ref.=not)*	-0.123		0.112	-0.179		0.092
Children under 25 (ref.=none)						
One or two children	0.123	***	0.036			
Three or more children	0.173	***	0.054			
Partner unemployment * One or two children	0.025		0.140			
Partner unemployment * Three or more children	-0.416	*	0.208			
% Change Unemployment				0.030		0.017
Partner unemployment * % Change Unemployment				0.021		0.026

Table A4.6 Continued

	Model 8			Model 13		
Future financial situation (full sample)	B		SE	B		SE
Expected financial situation (ref.=same)						
Better financial future	0.092		0.077	0.138	**	0.050
Worse financial future	-0.288	***	0.069	-0.240	***	0.049
Children under 25 (ref.=none)						
One or two children	0.082		0.049			
Three or more children	0.231	***	0.077			
Better financial future * One or two children	0.076		0.094			
Better financial future * Three or more children	-0.104		0.136			
Worse financial future * One or two children	0.094		0.083			
Worse financial future * Three or more children	-0.197		0.125			
% Change Unemployment				0.025		0.018
Better financial future * % Change Unemployment				0.013		0.016
Worse financial future * % Change Unemployment				0.016		0.015
	Model 9			**Model 14**		
Expected job loss (only employed sample)	B		SE	B		SE
Expected job loss (ref.=unlikely)						
Job loss, neither likely nor unlikely	-0.346	***	0.082	-0.208	***	0.051
Job loss, likely	-0.119		0.089	-0.132	*	0.053
Children under 25 (ref.=none)						
One or two children	0.068		0.045			
Three or more children	0.202	**	0.071			
Job loss, neither * One or two children	0.224	*	0.102			
Job loss, neither * Three or more children	0.037		0.172			
Job loss, likely * One or two children	-0.008		0.107			
Job loss, likely * Three or more children	-0.157		0.163			
% Change Unemployment				0.015		0.017
Job loss, neither * % Change Unemployment				0.021		0.015
Job loss, likely * % Change Unemployment				0.015		0.076

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. Results based on multilevel models. Controlled for all other variables included in Table 4.2.

Table A4.7 Individual and partner unemployment and satisfaction with family life, and the dependency on the presence of children and change in macro-level unemployment, differentiating unemployment and homemakers

	Model 1		Model 6		Model 7		Model 11		Model 12	
	Full sample		Full sample		Full sample		Full sample		Full sample	
	B	SE	B	SE	B	SE	B	SE	B	SE
Employment status (ref.=employed)										
Unemployed	-0.174 **	0.054	-0.263 **	0.084	-0.174 **	0.054	-0.190 **	0.062	-0.175 **	0.054
Homemaker	-0.016	0.050	-0.042	0.087	-0.017	0.050	0.003	0.071	-0.010	0.050
Partner employment status (ref.=employed)										
Unemployed	-0.138 *	0.060	-0.136 *	0.060	-0.110	0.095	-0.144 *	0.060	-0.162 **	0.062
Homemaker	0.108	0.056	0.103	0.056	0.175	0.094	0.086	0.057	0.091	0.058
Children under 25 (ref.=none)										
One or two children	0.082 **	0.031	0.058	0.035	0.088 **	0.034	0.081 **	0.031	0.081 **	0.031
Three or more children	0.080	0.050	0.109	0.059	0.114	0.055	0.083	0.050	0.080	0.050
% Change Unemployment	0.031	0.018	0.031	0.018	0.030	0.018	0.020	0.017	0.031	0.018
Interactions										
Unemployed * One or two children			0.121	0.109						
Homemaker * One or two children			0.106	0.101						
Unemployed * Three or more children			0.231	0.172						
Homemaker * Three or more children			-0.188	0.131						
Partner unemployed * One or two children					0.039	0.124				
Partner homemaker * One or two children					-0.104	0.114				
Partner unemployed * Three or more children					-0.420 *	0.196				
Partner homemaker * Three or more children					-0.081	0.152				
Unemployed * % Change Unemployment							0.024	0.017		
Homemaker * % Change Unemployment							0.026	0.019		
Partner unemployed * % Change Unemployment									0.024	0.016
Partner homemaker * % Change Unemployment									-0.017	0.015

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. Results based on multilevel models. Controlled for all other variables included in Table 4.2.

Table A4.8 Current and expected economic hardship and dissatisfaction with family life, and the dependency on the presence of children. Differentiating people without children below and above age 40

	Model 5		
Financial hardship (full sample)	B		SE
Financial hardship	-0.160	***	0.035
Children under 25 (ref.=none)			
One or two children	0.267	***	0.050
Three or more children	0.277	***	0.063
No children 40+	0.316	***	0.066
Financial hardship * One or two children	0.002		0.038
Financial hardship * Three or more children	-0.062		0.047
Financial hardship * no children 40+	-0.025		0.042
	Model 6		
Respondent's unemployment (full sample)	B		SE
Unemployed *(ref.=not)*	-0.331	*	0.140
Children under 25 (ref.=none)			
One or two children	0.254	***	0.051
Three or more children	0.237	***	0.065
No children 40+	0.311	***	0.067
Unemployment * One or two children	0.179		0.157
Unemployment * Three or more children	0.358		0.204
Unemployment * No children 40+	0.111		0.172
	Model 7		
Partner unemployment (full sample)	B		SE
Partner Unemployed *(ref.=not)*	0.054		0.161
Children under 25 (ref.=none)			
One or two children	0.280	***	0.051
Three or more children	0.308	***	0.064
No children 40+	0.340	***	0.066
Partner unemployment * One or two children	-0.138		0.180
Partner unemployment * Three or more children	-0.605	**	0.235
Partner unemployment * No children 40+	-0.271		0.196

Table A4.8 Continued

	Model 8		
Future financial situation (full sample)	B		SE
Better financial future	0.160		0.099
Worse financial future	-0.327	**	0.105
Children under 25 (ref.=none)			
One or two children	0.236	***	0.067
Three or more children	0.361	***	0.088
No children 40+	0.292	***	0.082
Better financial future * One or two children	0.002		0.112
Better financial future * Three or more children	-0.178		0.146
Better financial future * No children 40+	-0.002		0.136
Worse financial future * One or two children	0.142		0.112
Worse financial future * Three or more children	-0.143		0.148
Worse financial future * No children 40+	0.129		0.122
	Model 9		
Expected job loss (only employed sample)	B		SE
Job loss, neither likely nor unlikely	-0.405	***	0.116
Job loss, likely	-0.341	**	0.123
Children under 25 (ref.=none)			
One or two children	0.151	*	0.063
Three or more children	0.257	**	0.082
No children 40+	0.267	***	0.079
Job loss, neither * One or two children	0.268	*	0.129
Job loss, neither * Three or more children	0.105		0.193
Job loss, neither * No children 40+	-0.047		0.145
Job loss, likely * One or two children	0.229		0.137
Job loss, likely * Three or more children	0.096		0.180
Job loss, likely * No children 40+	0.346	*	0.155

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. Results based on multilevel models. Controlled for all other variables included in Table 4.2.

Table A4.9 Current and expected economic hardship and satisfaction with family life, and the dependency on the macro-economic circumstances. Different operationalization instead of absolute change in unemployment percentage

	Macro-economic indicators									
	Relative change unemployment % between 2008 - 2011		**Unemployment % 2011**		**GDP per capita in 2011**		**Mean GDP growth between 2008 - 2011**		**GDP growth in 2011**	
Financial hardship	B	SE	B	SE	B	SE	B	SE	B	SE
Financial hardship	-0.175 ***	0.022	-0.175 ***	0.022	-0.176 ***	0.022	-0.175 ***	0.022	-0.176 ***	0.022
Macro-economic indicator	0.002	0.001	0.013	0.014	0.002	0.003	-0.057	0.030	-0.055 **	0.019
Financial hardship * Macro-economic indicator	0.000	0.000	0.001	0.005	0.001	0.001	-0.008	0.012	-0.002	0.007
Respondent's unemployment	B	SE	B	SE	B	SE	B	SE	B	SE
Unemployed *(ref.=not)*	-0.182 **	0.060	-0.185 **	0.062	-0.174 **	0.063	-0.177 **	0.062	-0.176 **	0.062
Macro-economic indicator	0.002	0.001	0.013	0.015	0.001	0.003	-0.057	0.031	-0.049 *	0.020
Unemployment * Macro-economic indicator	0.001	0.001	0.009	0.013	0.001	0.003	0.005	0.031	-0.002	0.018
Partner unemployment	B	SE	B	SE	B	SE	B	SE	B	SE
Partner Unemployed *(ref.=not)*	-0.160	0.083	-0.152	0.088	-0.129	0.083	-0.159	0.084	-0.158	0.085
Macro-economic indicator	0.002	0.001	0.012	0.015	0.001	0.003	-0.055	0.031	-0.050 *	0.020
Partner unemployment * Macro-economic indicator	0.002	0.002	-0.002	0.019	0.007	0.004	-0.035	0.043	-0.023	0.025
Future financial situation	B	SE	B	SE	B	SE	B	SE	B	SE
Expected financial situation (ref.=same)										
Better financial future	0.146 **	0.048	0.158 ***	0.045	0.159 ***	0.044	0.148 **	0.048	0.164 ***	0.048
Worse financial future	-0.216 ***	0.049	-0.214 ***	0.049	-0.214 ***	0.050	-0.215 ***	0.049	-0.221 ***	0.050
Macro-economic indicator	0.002 *	0.001	0.010	0.015	0.002	0.003	-0.052	0.033	-0.055 *	0.022
Better financial future * Macro-economic indicator	-0.001	0.001	0.017	0.011	-0.004 *	0.002	0.012	0.030	-0.016	0.019
Worse financial future * Macro-economic indicator	0.001	0.001	0.001	0.012	-0.001	0.003	-0.024	0.029	0.007	0.017

Expected job loss	B		SE	B		SE	B		SE	B		SE	B		SE
Expected job loss (ref.=unlikely)															
Job loss, neither likely nor unlikely	-0.256	***	0.047	-0.261	***	0.047	-0.266	***	0.046	-0.254	***	0.046	-0.262	***	0.046
Job loss, likely	-0.128	**	0.049	-0.135	**	0.049	-0.129	**	0.049	-0.128	**	0.049	-0.131	**	0.048
Macro-economic indicator	0.001		0.001	0.005		0.014	0.001		0.003	-0.033		0.030	-0.035		0.020
Job loss, neither * Macro-economic indicator	0.001		0.001	0.009		0.011	-0.002		0.002	-0.036		0.028	-0.033	*	0.015
Job loss, likely * Macro-economic indicator	0.001		0.001	0.010		0.013	0.000		0.003	-0.045		0.026	-0.005		0.015

Source: EQLS 2012. * p<.05, ** p<.01, *** p<.001. Results based on multilevel models. Controlled for all other variables included in Table 4.2.

Appendix Chapter 5

Table A5.1 Relationship satisfaction squared. Men's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models

	Random effect models								
Men	**Model 1a**			**Model 2a**			**Model 3a**		
	B		SE	B		SE	B		SE
Individual's job insecurity (ref.=secure)									
Job is bit secure	-2.321	***	0.660	-2.476	***	0.681	-2.328	***	0.662
Job is insecure	-3.861	***	0.798	**-4.041**	*******	**0.822**	-3.869	***	0.799
Unempl. or UtW	-3.499	**	1.238	-3.602	**	1.231	-3.519	**	1.243
Partner's job insecurity (ref.=secure)									
Job is bit secure	-0.243		0.596	-0.230		0.595	-0.268		0.601
Job is insecure	-1.291	#	0.746	-1.273	#	0.741	-1.325	#	0.751
Unempl. or UtW	**-2.463**	*****	**1.209**	**-2.424**	*****	**1.209**	**-2.502**	*****	**1.209**
Homemaker	-0.915		0.947	-0.904		0.945	-1.022		0.985
Individual's education	-0.314	*	0.146	-0.598	**	0.199	-0.314	*	0.146
Partner's education	**-0.470**	******	**0.158**	**-0.468**	******	**0.158**	**-0.618**	*****	**0.240**
Individual's JI*Own educ.									
Job is bit secure * Educ.				0.249		0.185			
Job is insecure * Educ.				0.534	*	0.232			
Unempl. or UtW * Educ.				0.391		0.380			
Partner's JI.*Partner's educ.									
Job is bit secure * Educ.							0.160		0.223
Job is insecure * Educ.							0.306		0.270
Unempl. or UtW * Educ.							0.109		0.463
Homemaker * Education							0.074		0.328
Constant	69.092	***	1.402	69.259	***	1.406	69.133	***	1.401
Sigma u	16.350			16.357			16.293		
Sigma e	12.539			12.532			12.538		

Source. LISS panel 2008-2015, 6,753 observations of 2,091 men. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<0.1) difference between men and women. Models are controlled for all variables listed in Table 5.2.
JI = job insecurity, UtW = unable to work

Fixed effect models								
Model 1b			**Model 2b**			**Model 3b**		
B		SE	B		SE	B		SE
-1.350	#	0.706	-1.533	*	0.731	-1.335	#	0.708
-2.376	**	0.841	-2.568	**	0.866	-2.371	**	0.840
-0.821		1.440	-0.881		1.457	-0.754		1.450
0.217		0.656	0.236		0.656	0.204		0.657
-0.375		0.798	-0.350		0.793	-0.367		0.798
-0.119		**1.425**	**-0.042**		**1.421**	**0.141**		**1.417**
-2.008		1.271	-2.011		1.266	-1.980		1.308
			0.393	#	0.204			
			0.638	*	0.262			
			0.638		0.471			
						0.352		0.247
						0.383		0.319
						0.932	#	0.554
						0.453		0.476
71.067	***	2.195	71.288	***	2.209	71.117	***	2.175
21.445			21.685			21.706		
12.539			12.532			12.538		

Table A5.2 Relationship satisfaction squared. Women's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models

	Random effect models								
Women	**Model 1a**			**Model 2a**			**Model 3a**		
	B		SE	B		SE	B		SE
Individual's job insecurity (ref.=secure)									
Job is bit secure	-1.267	*	0.617	-1.325	*	0.615	-1.256	*	0.617
Job is insecure	-2.041	*	0.807	**-2.094**	*****	**0.807**	-2.034	*	0.806
Unempl. or UtW	-2.391	#	1.271	-2.533	#	1.322	-2.399	#	1.271
Homemaker	-1.047		1.029	-0.970		1.047	-1.051		1.029
Partner's job insecurity (ref.=secure)									
Job is bit secure	-1.365	*	0.566	-1.370	*	0.567	-1.331	*	0.576
Job is insecure	-2.446	***	0.685	-2.459	***	0.686	-2.425	***	0.695
Unempl. or UtW	**-7.032**	*******	**1.242**	**-7.016**	*******	**1.241**	**-6.894**	*******	**1.241**
Individual's education	-0.614	***	0.158	-0.871	***	0.248	-0.614	***	0.158
Partner's education	**0.262**	**#**	**0.152**	**0.263**	**#**	**0.152**	**0.296**		**0.203**
Interactions									
Individual's JI*Own educ.									
Job is bit secure * Educ.				0.299		0.234			
Job is insecure * Educ.				0.355		0.260			
Unempl. or UtW * Educ.				0.087		0.490			
Homemaker * Education				0.342		0.355			
Partner's JI*Partner's educ.									
Job is bit secure * Educ.							-0.117		0.173
Job is insecure * Educ.							0.057		0.228
Unempl. or UtW * Educ.							0.079		0.386
Constant	70.148	***	1.459	70.246	***	1.463	70.119	***	1.462
Sigma u	16.637			16.624			16.645		
Sigma e	12.254			12.252			12.256		

Source. LISS panel 2008-2015, 6,753 observations of 2,091 men. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001.
Bold is significant (p<0.1) difference between men and women. Models are controlled for all variables listed in Table 5.2. JI = job insecurity, UtW = unable to work

Fixed effect models								
Model 1b			**Model 2b**			**Model 3b**		
B		SE	B		SE	B		SE
-0.356		0.669	-0.410		0.666	-0.344		0.668
-0.536		0.849	-0.586		0.844	-0.534		0.848
0.762		1.458	0.740		1.491	0.722		1.457
0.340		1.476	-0.153		1.480	0.308		1.476
-0.918		0.601	-0.914		0.601	-0.886		0.612
-1.581	*	0.753	-1.580	*	0.754	-1.557	*	0.763
-4.661	****	**1.500**	**-4.685**	****	**1.495**	**-4.381**	****	**1.519**
			0.379		0.250			
			0.302		0.296			
			0.059		0.560			
			-0.371		0.489			
						-0.129		0.190
						0.041		0.245
						0.262		0.468
70.136	***	2.229	70.246	***	2.238	70.085	***	2.228
21.061			21.205			21.052		
12.254			12.252			12.256		

Table A5.3 Ordered Logit models. Men's and women's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models

	Men Ordered Logit Model								
	Model 1			Model 2			Model 3		
	B		SE	B		SE	B		SE
Individual's job insecurity (ref.=job is secure)									
Job is bit secure	-0.419	***	0.102	-0.437	***	0.107	-0.420	***	0.102
Job is insecure	-0.692	***	0.119	**-0.718**	*******	**0.123**	-0.694	***	0.119
Unemployed or UtW	-0.629	**	0.212	-0.662	**	0.214	-0.629	**	0.212
Homemaker									
Partner's job insecurity (ref.=job is secure)									
Job is bit secure	-0.065		0.109	-0.064		0.109	-0.066		0.110
Job is insecure	-0.195		0.127	**-0.191**		**0.126**	-0.197		0.127
Unemployed or UtW	**-0.503**	*****	**0.206**	**-0.503**	*****	**0.207**	**-0.508**	*****	**0.204**
Homemaker	-0.166		0.166	-0.167		0.165	-0.154		0.171
Individual's education	-0.067	*	0.027	-0.103	**	0.038	-0.067	*	0.027
Partner's education	**-0.076**	******	**0.029**	**-0.076**	******	**0.029**	**-0.102**	*****	**0.042**
Interactions									
Individual's JI*Own educ.									
Job is bit secure * Educ.				0.021		0.034			
Job is insecure * Educ.				0.091	*	0.040			
Unempl. or UtW * Educ.				0.033		0.068			
Homemaker * Education									
Partner's JI*Partner's educ.									
Job is bit secure * Educ.							0.019		0.038
Job is insecure * Educ.							0.050		0.044
Unempl. or UtW * Educ.							0.016		0.079
Homemaker * Education							0.035		0.056
Cut 1	-4.519		0.275	-4.540		0.276	-4.526		0.275
Cut 2	-2.433		0.261	-2.452		0.262	-2.440		0.261
Cut 3	0.602		0.258	0.585		0.259	0.595		0.258
Cut 4	2.951		0.268	2.936		0.269	2.944		0.268
sigma2 u	7.651		0.531	7.656		0.531	7.644		0.532

Source: LISS panel 2008-2015, Male sample: 5,723 observations of 1,827 men. Female sample: 5,709 observations of 1,823 women. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<0.1) difference between men and women. Models are controlled for all variables listed in Table 5.2. JI = job insecurity, UtW = unable to work. Note. Analyses are on not imputed data sample because ordered logit models were not compatible with multiple imputed datasets

Women Ordered Logit Model								
Model 1			**Model 2**			**Model 3**		
B		SE	B		SE	B		SE
-0.296	**	0.113	-0.299	**	0.114	-0.295	**	0.113
-0.409	**	0.136	**-0.412**	****	**0.136**	-0.406	**	0.136
-0.481	*	0.215	-0.512	*	0.221	-0.482	*	0.215
-0.208		0.181	-0.190		0.181	-0.209		0.181
-0.262	**	0.101	-0.265	**	0.101	-0.260	*	0.103
-0.488	***	0.122	**-0.491**	****	**0.122**	-0.489	***	0.124
-1.333	****	**0.226**	**-1.335**	****	**0.226**	**-1.347**	****	**0.230**
-0.116	***	0.029	-0.136	**	0.047	-0.116	***	0.029
0.046	**#**	**0.027**	**0.046**	**#**	**0.027**	**0.045**		**0.037**
			0.023		0.041			
			0.037		0.049			
			-0.029		0.084			
			0.033		0.066			
						-0.011		0.031
						0.027		0.039
						-0.010		0.072
-4.931		0.281	-4.941		0.281	-4.931		0.281
-2.862		0.272	-2.871		0.272	-2.861		0.272
0.321		0.268	0.311		0.269	0.322		0.268
2.609		0.279	2.598		0.280	2.611		0.279
7.441		0.538	7.424		0.538	7.444		0.538

Table A5.3 Ordered Logit models. Men's and women's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models

	Men Ordered Logit Model								
	Model 1			Model 2			Model 3		
	B		SE	B		SE	B		SE
Individual's job insecurity (ref.=job is secure)									
Job is bit secure	-0.419	***	0.102	-0.437	***	0.107	-0.420	***	0.102
Job is insecure	-0.692	***	0.119	**-0.718**	*******	**0.123**	-0.694	***	0.119
Unemployed or UtW	-0.629	**	0.212	-0.662	**	0.214	-0.629	**	0.212
Homemaker									
Partner's job insecurity (ref.=job is secure)									
Job is bit secure	-0.065		0.109	-0.064		0.109	-0.066		0.110
Job is insecure	-0.195		0.127	**-0.191**		**0.126**	-0.197		0.127
Unemployed or UtW	**-0.503**	*****	**0.206**	**-0.503**	*****	**0.207**	**-0.508**	*****	**0.204**
Homemaker	-0.166		0.166	-0.167		0.165	-0.154		0.171
Individual's education	-0.067	*	0.027	-0.103	**	0.038	-0.067	*	0.027
Partner's education	**-0.076**	******	**0.029**	**-0.076**	******	**0.029**	**-0.102**	*****	**0.042**
Interactions									
Individual's JI*Own educ.									
Job is bit secure * Educ.				0.021		0.034			
Job is insecure * Educ.				0.091	*	0.040			
Unempl. or UtW * Educ.				0.033		0.068			
Homemaker * Education									
Partner's JI*Partner's educ.									
Job is bit secure * Educ.							0.019		0.038
Job is insecure * Educ.							0.050		0.044
Unempl. or UtW * Educ.							0.016		0.079
Homemaker * Education							0.035		0.056
Cut 1	-4.519		0.275	-4.540		0.276	-4.526		0.275
Cut 2	-2.433		0.261	-2.452		0.262	-2.440		0.261
Cut 3	0.602		0.258	0.585		0.259	0.595		0.258
Cut 4	2.951		0.268	2.936		0.269	2.944		0.268
sigma2 u	7.651		0.531	7.656		0.531	7.644		0.532

Source: LISS panel 2008-2015, Male sample: 5,723 observations of 1,827 men. Female sample: 5,709 observations of 1,823 women. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<0.1) difference between men and women. Models are controlled for all variables listed in Table 5.2. JI = job insecurity, UtW = unable to work. Note. Analyses are on not imputed data sample because ordered logit models were not compatible with multiple imputed datasets

Women Ordered Logit Model								
Model 1			**Model 2**			**Model 3**		
B		SE	B		SE	B		SE
-0.296	**	0.113	-0.299	**	0.114	-0.295	**	0.113
-0.409	**	0.136	**-0.412**	****	**0.136**	-0.406	**	0.136
-0.481	*	0.215	-0.512	*	0.221	-0.482	*	0.215
-0.208		0.181	-0.190		0.181	-0.209		0.181
-0.262	**	0.101	-0.265	**	0.101	-0.260	*	0.103
-0.488	***	0.122	**-0.491**	****	**0.122**	-0.489	***	0.124
-1.333	****	**0.226**	**-1.335**	****	**0.226**	**-1.347**	****	**0.230**
-0.116	***	0.029	-0.136	**	0.047	-0.116	***	0.029
0.046	**#**	**0.027**	**0.046**	**#**	**0.027**	**0.045**		**0.037**
			0.023		0.041			
			0.037		0.049			
			-0.029		0.084			
			0.033		0.066			
						-0.011		0.031
						0.027		0.039
						-0.010		0.072
-4.931		0.281	-4.941		0.281	-4.931		0.281
-2.862		0.272	-2.871		0.272	-2.861		0.272
0.321		0.268	0.311		0.269	0.322		0.268
2.609		0.279	2.598		0.280	2.611		0.279
7.441		0.538	7.424		0.538	7.444		0.538

Table A5.4 Men's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models. Separately analyzing dual-earners from couples where men are the single-earner

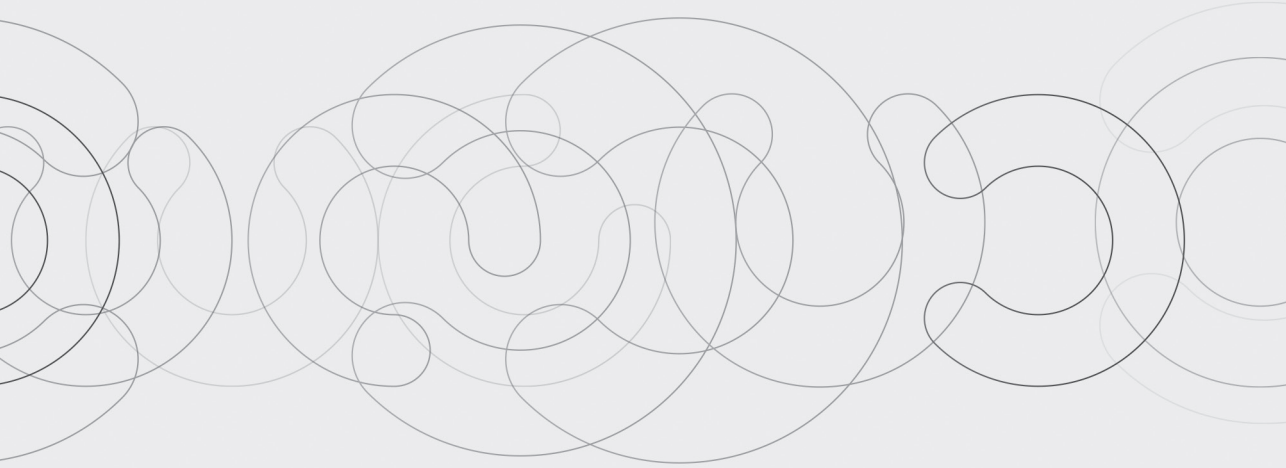
Men	Dual earners				Man employment, woman non-employed			
	Random effect		Fixed effect		Random effect		Fixed effect	
	Model 1a		Model 1b		Model 1a		Model 1b	
	B	SE	B	SE	B	SE	B	SE
Individual's job insecurity (ref.=job is secure)								
Job is bit secure	-0.118 *	0.047	-0.061	0.052	-0.217 **	0.073	-0.123	0.083
Job is insecure	-0.222 ***	0.052	-0.123 *	0.056	-0.313 ***	0.093	-0.161	0.106
Partner's job insecurity (ref.=job is secure)								
Job is bit secure	-0.003	0.041	0.031	0.043				
Job is insecure	-0.072	0.048	-0.006	0.055				
Unemployed or unable to work					Ref.		Ref.	
Homemaker					0.145	0.108	-0.003	0.189
Individual's education	-0.018	0.011			-0.023	0.018		
Partner's education	**-0.016**	**0.012**			-0.048 *	0.021		
Age	-0.015 **	0.006	0.006	0.043	-0.022 *	0.010	-0.156 ***	0.024
Relationship duration	-0.005	0.005	-0.068	0.044	0.006	0.009	0.091 ***	0.019
Relationship duration SQ	**0.001 ** **	**0.000**	**0.001**	**0.001**	0.001 #	0.001	0.002 *	0.001
Married *(ref.=cohabitation)*	0.369 ***	0.072	0.047	0.151	0.168	0.144	0.234	0.328
Household labor (ref.=equal or men does more)								
Wife does more	**0.081 #**	**0.046**	**0.095 #**	**0.057**	-0.004	0.081	-0.062	0.097
Number of children (ref.=none)								
1 or 2 children	-0.097 #	0.054	-0.054	0.074	0.052	0.120	0.162	0.185
3 or more children	-0.237 *	0.098	-0.306 *	0.140	0.023	0.148	0.099	0.234
Constant	8.118 ***	0.099	8.212 ***	0.171	8.109 ***	0.211	8.107 ***	0.356
Sigma u	1.055		1.396		1.047		1.486	
Sigma e	0.825		0.825		0.832		0.832	

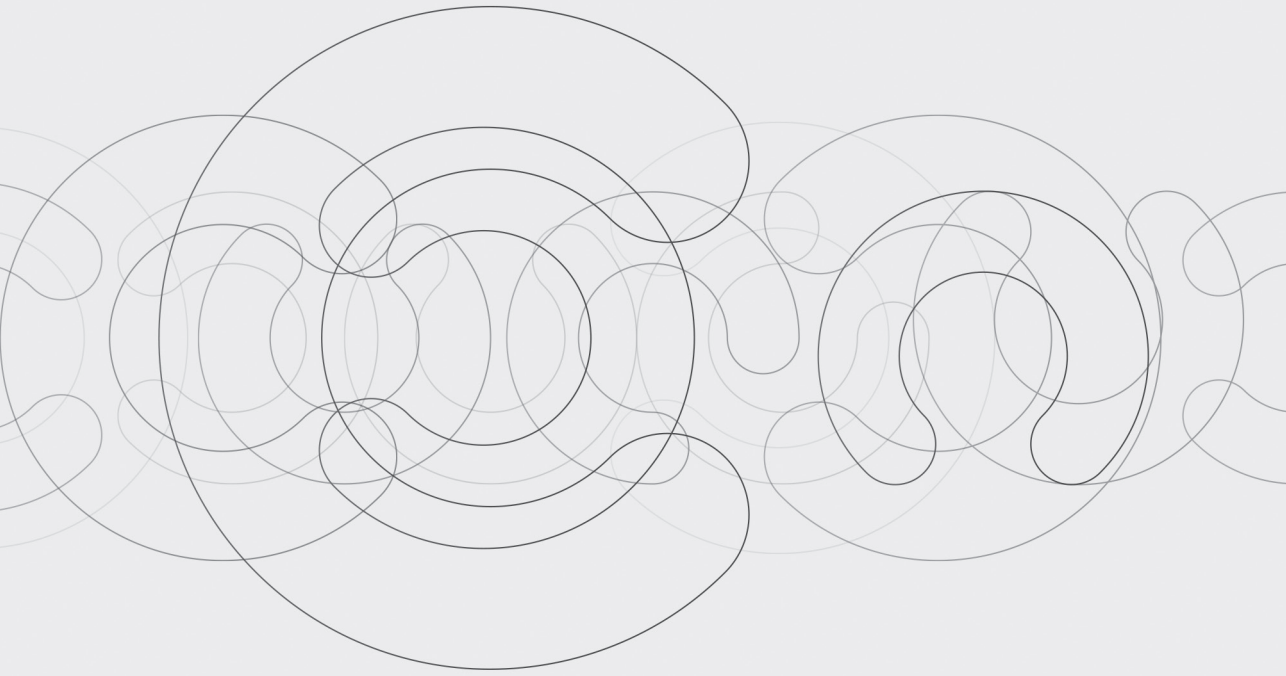
Source. LISS panel 2008-2015, Dual-earners sample: 4,666 observations of 1,572 men. Single-earner sample: 1,645 observations of 589 men. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<0.1) difference between men and women for the dual-earner models. Note: Single-earner couples where women are the single earner are not investigated because of the very small N.

Table A5.5 Women's relationship satisfaction and individual's and partner's job insecurity, random (differences between people) and fixed (changes within people over time) effects models. Separately analyzing dual-earners from couples where men are the single-earner

Women	**Dual-earners**						**Man employment, woman non-employed**					
	Random effect			**Fixed effect**			**Random effect**			**Fixed effect**		
	Model 1a			**Model 1b**			**Model 1a**			**Model 1b**		
	B		SE	B		SE	B		SE	B		SE
Individual's job insecurity (ref.=job is secure)												
Job is bit secure	-0.081	*	0.041	-0.031		0.044						
Job is insecure	-0.162	*	0.061	-0.071		0.069						
Unable to work							Ref.			Ref.		
Homemaker							0.181		0.121	0.034		0.183
Partner's job insecurity (ref.=job is secure)												
Job is bit secure	-0.071	#	0.041	-0.046		0.046	-0.121		0.093	-0.076		0.103
Job is insecure	-0.123	*	0.048	-0.066		0.057	-0.311	**	0.117	-0.235	#	0.131
Individual's education	-0.034	**	0.012				-0.013		0.023			
Partner's education	**0.016**		**0.012**				-0.004		0.020			
Age	-0.013	*	0.006	-0.012		0.021	-0.021	#	0.011	-0.181	#	0.094
Relationship duration	-0.008		0.005	-0.038		0.023	0.006		0.011	0.132		0.099
Relationship duration SQ	**0.002**	***	**0.000**	**0.002**	***	**0.000**	0.000		0.001	-0.001		0.001
Married *(ref.=cohabitation)*	0.348	***	0.071	0.108		0.125	0.196		0.159	0.091		0.315
Household labor (ref.=equal or men does more)												
Wife does more	**-0.056**		**0.042**	**-0.043**		**0.050**	-0.261	**	0.095	-0.232	*	0.108
Number of children (ref.=none)												
1 or 2 children	-0.212	***	0.053	-0.121	#	0.074	-0.387	***	0.115	-0.143		0.139
3 or more children	-0.195	*	0.086	-0.176		0.116	-0.323	#	0.179	-0.223		0.254
Constant	8.129	***	0.102	8.120	***	0.149	8.521	***	0.209	8.460	***	0.412
Sigma u	1.083			1.324			1.212			1.704		
Sigma e	0.778			0.778			0.904			0.904		

Source. LISS panel 2008-2015, Dual-earners sample: 4,652 observations of 1,571 women. Single-earner sample: 1,635 observations of 589 women. # p<0.1, * p<0.05, ** p<0.01, *** p<0.001. **Bold** is significant (p<0.1) difference between men and women for the dual-earner models. Note: Single-earner couples where women are the single earner are not investigated because of the very small N.





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Nederlandse samenvatting (summary in Dutch)

Inleiding en Onderzoeksvragen

De relatie met je partner is één van de belangrijkste relaties in je leven. De kwaliteit van deze relatie is cruciaal. Een goede relatie draagt sterk bij aan het welzijn van beide partners en aan het welzijn van eventuele kinderen (Amato & Sobolewski, 2001; Proulx, et al., 2007; Robles, et al., 2014; Musick & Bumpass, 2012; Umberson, et al., 2006; Waite & Lehrer, 2003; Knopp et al., 2017). Vanuit de literatuur is het voornamelijk bekend dat de kwaliteit van de relatie wordt beïnvloed door de gezinssituatie (zoals het al dan niet hebben van kinderen) en door persoonlijke kenmerken (zoals karaktereigenschappen). Echter, ook werk en werkomstandigheden hebben een belangrijke invloed op de kwaliteit van de partnerrelatie. Hier is relatief weinig aandacht voor in de literatuur. In deze dissertatie onderzoek ik daarom hoe werk en werkomstandigheden de kwaliteit van de partnerrelatie beïnvloeden.

Zowel positieve als negatieve ervaringen op het werk en op de arbeidsmarkt beïnvloeden hoe mensen zich gedragen binnen hun relatie (Bakker & Demerouti, 2013; Eby et al., 2010). Werk heeft een positieve invloed op relaties omdat het zorgt voor inkomen en financiële zekerheid. Ten tweede ervaren mensen die werk hebben vaak meer structuur en controle over hun leven. Daarnaast draagt het hebben van werk bij aan de persoonlijke identiteit en de sociale status (Jahoda 1981; Paul & Moser, 2009). Negatieve ervaringen of omstandigheden op het werk zorgen daarentegen voor stress en minder energie voor de partner (Danner-Vlaardingerbroek, et al., 2013; Debrot et al., 2017). Ook kan tijd die wordt besteed aan werk niet aan andere activiteiten worden besteed, zoals zorg of huishoudelijk werk, wat eveneens de relatiekwaliteit kan beïnvloeden (Mannino & Deutsch, 2007; Tai & Baxter, 2018). Door al deze factoren kan werk zowel een positieve als een negatieve invloed hebben op de kwaliteit van de relatie. Naast de eigen baan, is de baan van de partner van belang voor de partnerrelatie (Eby et al., 2010); beide dragen immers bij aan de financiële en sociale status van het koppel. Bovendien kunnen de ervaringen van de partner op de arbeidsmarkt overslaan naar de partnerrelatie.

In welke mate positieve en negatieve ervaringen op het werk en op de arbeidsmarkt de relatie beïnvloedt, kan verschillen tussen mannen en vrouwen. Traditioneel waren vooral mannen actief op de arbeidsmarkt, maar in de tweede helft van de 20ste eeuw zijn vrouwen in de meeste westerse landen meer betaald werk gaan verrichten (Charles, 2011). De verdeling van werk en inkomen tussen partners is hierdoor gelijker geworden en in sommige gevallen verdienen vrouwen een hoger inkomen dan hun partner (Klesment & Van Bavel, 2017). Echter, veel mensen vinden werk nog steeds belangrijker voor mannen dan voor vrouwen (Parker & Stepler, 2017; Thijs et al., 2017; Townsend, 2002) en zijn mannen vaak de belangrijkste kostwinner (Klesment & Van Bavel, 2017). Hierdoor heeft het werk van mannen mogelijk een sterkere invloed op de relatie dan het werk van vrouwen.

Het is mogelijk dat niet alle relaties in dezelfde mate beïnvloed worden door werk-(omstandigheden). Mensen hebben verschillende voorkeuren voor de verdeling van werk

tussen partners, zo heeft de een voorkeur voor een traditionele verdeling van werk met de partner, terwijl de ander meer egalitaire opvattingen heeft. Mensen met egalitaire opvattingen zijn onder andere voor meer gelijke verdeling van werk tussen mannen en vrouwen. Een meer gelijke verdeling van werk kan beter zijn voor de partnerrelatie wanneer mensen egalitaire opvattingen hebben over genderrollen, maar slechter wanneer mensen meer traditionele opvattingen hebben. Daarnaast kunnen familie- en macro-economische omstandigheden zorgen voor meer stress en financiële druk. Ook kunnen ze (afwijkingen van) traditionele genderrollen benadrukken. De relatie van mensen met kinderen zou bijvoorbeeld sterker beïnvloed kunnen worden door armoede of werkloosheid dan mensen zonder kinderen, omdat kinderen zorgen voor extra financiële druk. Er is echter zeer weinig bekend of de invloed van werk op de kwaliteit van de partnerrelatie verschilt naar gender normen, de familie-context en de macro-economische context.

De uitkomsten uit eerder onderzoek laten niet duidelijk zien of de verdeling van werk tussen partners de kwaliteit van de partnerrelatie beïnvloed, en zo ja, waarom dit gebeurt. Sommige onderzoeken tonen aan dat een traditionele verdeling van werk tussen partners, wanneer de man de belangrijkste kostwinner is, leidt tot betere relaties tussen de partners (e.g. Furdyna et al., 2008). Andere studies laten juist zien dat dat een meer gelijke verdeling van werk tussen mannen en vrouwen leidt tot betere relaties (Hardie et al., 2014) of dat de verdeling van werk weinig of geen invloed heeft op de kwaliteit van de partnerrelatie (e.g. Keizer & Komter, 2015; Schoen et al., 2006).

Niet alleen de verdeling van arbeid, maar ook werkloosheid en armoede kan de partnerrelatie in belangrijke mate beïnvloeden. Mensen die financiële problemen hebben of werkloos zijn, hebben over het algemeen een slechtere relatie met hun partner (Conger et al., 2010; Kinnunen & Feldt, 2004). Dit lijkt vooral te gelden voor mensen met financiële problemen en in mindere mate voor werkloosheid. Naast huidige economische omstandigheden kunnen de verwachtingen over de economische toekomst de relatiekwaliteit beïnvloeden. Eerder onderzoek laat zien dat mensen met meer baanonzekerheid minder goede partnerrelaties hebben (Mauno & Kinnunen, 1999), net als mensen die verwachten in de toekomst aan inkomen te verliezen (Kinnunen & Pulkkinen, 1998).

In deze dissertatie tracht ik de volgende onderzoeksvragen te beantwoorden: *In welke mate beïnvloeden werkfactoren de kwaliteit van de partnerrelatie? En in welke mate verschilt de invloed van werkfactoren op de relatiekwaliteit afhankelijk van genderrol-opvattingen, de familie-context en de macro-economische context?*

Bijdragen aan literatuur

Met deze onderzoek draag ik op vier manieren bij de aan de bestaande literatuur. Allereerst bestudeer ik niet alleen hoe de werkomstandigheden van het individu de individuele perceptie van de relatiekwaliteit beïnvloeden, maar kijk ik ook of de werkomstandigheden van de partner de relatie beïnvloeden, het zogenaamde dyadische perspectief.

Ten tweede toets ik verschillende theoretische mechanismen om te onderzoeken waarom (de verdeling van) werk de partnerrelatie beïnvloedt. Zo onderzoek ik niet alleen tijd die partners besteden aan werk maar ook de tijd die ze besteden aan huishoudelijke taken. Hierdoor worden de theoretische concepten 'specialisatie' (hoe verschillend zijn de taken van partners) en 'equity' (hoe gelijk is het totaal aantal taken van partners) onderscheiden (Kalmijn & Monden, 2011). Tevens onderzoek ik tegenstrijdige theorieën ten aanzien van vrouwelijke kostwinners; vanuit de ene theorie wordt verwacht dat koppels met een vrouwelijke kostwinnerbetere relaties hebben, vanuit een andere theorie dat ze slechtere relaties hebben. Tot slot onderzoek ik de invloed van (de verdeling van) werk en inkomen op de partnerrelatie tegelijk. Hierdoor kan de invloed van inkomen los worden gezien van de invloed van werk en andersom. Ik kan bijvoorbeeld onderzoeken of werkloosheid zorgt voor een slechtere relatiekwaliteit wanneer er rekening wordt gehouden met het lagere inkomen.

Ten derde onderzoek ik of de invloed van werk op de partnerrelatie verschilt tussen verschillende groepen. In eerder onderzoek is vooral de directe invloed van werk op de relatiekwaliteit onderzocht, terwijl dit kan verschillen tussen groepen. In deze dissertatie kijk ik specifiek of de invloed van (de verdeling van) werk op de kwaliteit van de partnerrelatie verschilt (1) tussen mannen en vrouwen, (2) tussen mensen met meer of minder egalitaire genderrol-opvattingen, (3) tussen mensen met of zonder kinderen, (4) tussen hoger en lager opgeleiden en tot slot (5) tussen mensen die in landen wonen met een betere of slechtere macro-economische situatie.

De laatste vernieuwing van deze dissertatie is het gebruik van longitudinale data (mensen zijn over de jaren meerdere keren geïnterviewd) en crossnationale data (mensen in verschillende landen zijn geïnterviewd). Dit is een belangrijke vooruitgang ten opzichte van de bestaande literatuur (Conger et al., 2010; Hardie et al., 2014). Eerder onderzoek heeft voornamelijk crosssectionele data gebruikt uit een enkel land. Ik gebruik drie dyadische longitudinale datasets: uit Nederland (het LISS panel), Australië (het HILDA panel) en het Verenigd Koninkrijk (het BHPS panel). Daarnaast gebruik ik ook crossnationale data die dertig Europese landen beslaat (de EQLS uit 2012). Dit zorgt ervoor dat ik kan onderzoeken in hoeverre de invloed van werkfactoren op de partnerrelatie verschilt tussen landen en waardoor deze verschillen worden verklaard.

De empirische studies

De onderzoeksvraag wordt beantwoord in vier verschillende studies. De eerste twee studies gaan over de invloed van de verdeling van werk tussen partners op de kwaliteit van de partnerrelatie. In het eerste onderzoek bekijk ik de verdeling van werk en huishoudelijk werk en in het tweede onderzoek richt ik me op vrouwelijke kostwinners. De derde en vierde studie gaan over de invloed van economische problemen op de kwaliteit van de partnerrelatie. In het derde onderzoek kijk ik naar de invloed van huidige en verwachte economische omstandigheden op de tevredenheid met het familie leven.

In de laatste studie onderzoek ik de invloed van baanonzekerheid op de kwaliteit van de partnerrelatie. Hier licht ik elke studie kort toe.

Studie 1. De verdeling van werk op de arbeidsmarkt en huishoudelijk werk

In deze eerste studie onderzoek ik hoe de tevredenheid met de partnerrelatie wordt beïnvloed door de verdeling van werk op de arbeidsmarkt en huishoudelijk werk tussen partners. Door beide typen werk tegelijk te onderzoeken, in plaats van slechts een van beide, worden de theoretische concepten 'specialisatie' en 'equity' onderscheiden (gebaseerd op Kalmijn & Monden, 2011). Specialisatie staat voor hoe verschillend de taken zijn die partners doen, bijvoorbeeld als één partner voornamelijk huishoudelijk werk doet terwijl de ander vooral actief is op de arbeidsmarkt. 'Equity' staat voor hoe gelijk het totaal aantal uren is dat beide partners besteden aan werk, ongeacht of dat aan huishoudelijk werk of werk op de arbeidsmarkt wordt besteed. In deze studie onderzoek ik de directe invloed van specialisatie en equity op de tevredenheid met de partnerrelatie. Ook bekijk ik in hoeverre deze invloed verschilt tussen mensen met meer of minder egalitaire genderrol-opvattingen en tussen mensen met en zonder kinderen. De hypothesen worden getoetst door gebruik te maken van de British Household Panel Survey (1997-2008).

De resultaten tonen geen directe invloed van specialisatie en equity op de tevredenheid met de partnerrelatie. Echter, de resultaten laten zien dat wanneer koppels het werk verdelen in overeenstemming met de opvattingen van de man, mannen meer tevreden zijn met de partnerrelatie. Mannen met egalitaire genderrol-opvattingen zijn minder tevreden met de relatie wanneer de verdeling van werk meer gespecialiseerd is. Aan andere kant zijn mannen met meer traditionele genderrol-opvattingen meer tevreden met de relatie wanneer werk gespecialiseerd verdeeld is tussen partners. Daarnaast laten de resultaten zien dat voor mannen equity een positieve invloed heeft op relatietevredenheid wanneer zij egalitaire genderrol-opvattingen hebben, terwijl het een negatieve invloed heeft voor mannen met traditionelere opvattingen. Oftewel, wanneer partners evenveel tijd besteden aan de combinatie van werk en huishoudelijk taken, zijn mannen met meer egalitaire opvattingen meer tevreden met de relatie, en meer traditionele mannen minder tevreden. Deze modererende invloeden worden niet gevonden voor vrouwen. Ook vinden we geen verschillen in de invloed van zowel specialisatie als equity tussen mensen met en zonder kinderen.

Studie 2. Vrouwelijke kostwinners

De tweede studie gaat over de vraag of mannen en vrouwen in koppels waar de vrouw de belangrijkste kostwinner is, meer of minder tevreden zijn met de relatie dan andere koppels. Daarnaast bestudeer ik of deze verschillen groter of kleiner zijn naarmate mensen meer egalitaire genderrol-opvattingen hebben. Vrouwelijke kostwinner koppels worden gedefinieerd als koppels waarin de vrouw werkt en de man niet, of waarin de vrouw het grootste deel van het huishoudinkomen vergaart. Hiermee onderscheid ik dus eenverdieners

van tweeverdieners waarin er één meer verdient dan de ander, wat belangrijk blijkt te zijn voor deze studie. Hypothesen worden geformuleerd op basis van specialisatie-, onderhandelings-, rol-samenwerkings-, en 'doing gender'-theorieën. Om deze hypothesen te toetsten maak ik gebruik van data uit het Household, Income and Labour Dynamics in Australia panel (2001-2015).

De resultaten van deze studie laten zien dat mensen minder tevreden worden met de partnerrelatie wanneer de vrouw meer gaat verdienen dan de man, of wanneer de vrouw werkt en de man niet meer. Mannen en vrouwen worden minder tevreden wanneer mannen niet meer werken door werkloosheid of ziekte. Bij mannen wordt dit verklaard door een achteruitgang in inkomen en werkuren, maar deze verklaring gaat minder op voor vrouwen. Verder worden over het algemeen zowel mannen als vrouwen minder tevreden met de partnerrelatie wanneer beide werken maar de vrouw de belangrijkste kostwinner is (vergeleken met wanneer de man de kostwinner was of beide ongeveer evenveel verdienden). Deze verschillen blijken niet verzwakt of versterkt te worden naarmate men meer egalitaire genderrol-opvattingen heeft. De resultaten lijken vooral het 'doing gender' perspectief te steunen, waarin wordt verondersteld dat mensen meer tevreden zijn met de partnerrelatie wanneer ze zich gedragen volgens traditionele rolverdelingen.

Studie 3. Huidige en verwachte economische problemen

De derde studie gaat over de mate waarin de tevredenheid met het familieleven wordt beïnvloed door de huidige en verwachte economische problemen van koppels. Hierbij kijk ik naar problemen qua inkomen en qua werk. Gebaseerd op het 'familie stress model' verwacht ik dat huidige en verwachte economische problemen de tevredenheid met het familieleven beïnvloeden. Daarnaast veronderstel ik dat verwachte economische problemen een negatievere invloed hebben wanneer mensen ook huidige economische problemen ervaren. Verder wordt verondersteld dat huidige en verwachte economische problemen een negatiever effect hebben op de tevredenheid met het familieleven wanneer mensen kinderen hebben, of wanneer ze in landen wonen met een sterkere stijging in werkloosheid. Ik onderzoek deze hypothesen door gebruik te maken van de European Quality of Life Survey 2012, een cross-nationale dataset bestaande uit dertig Europese landen.

De uitkomsten van dit onderzoek duiden erop dat mensen minder tevreden zijn met hun familieleven wanneer zij meer economische problemen ervaren of deze verwachten in de toekomst. Mensen zijn minder tevreden wanneer zij moeilijk financieel rondkomen, werkloos zijn, een daling van inkomen verwachten of onzeker zijn over hun baanbehoud. De negatieve invloed van verwachte economische problemen wordt over het algemeen niet versterkt door de huidige economische problemen die mensen ervaren. Dit laat zien dat ook mensen die het economisch beter hebben worden beïnvloed door verwachtingen over de toekomst. De tevredenheid met het familieleven van mensen met kinderen wordt over het algemeen vergelijkbaar beïnvloed door (verwachtte) economische

problemen als van mensen zonder kinderen. Ook de macro-economische omstandigheden versterken de negatieve invloed van (verwachte) economische problemen niet. Over het algemeen blijkt dus dat mensen die economische problemen hebben of die verwachten in de nabije toekomst minder tevreden zijn met hun familieleven, ongeacht de familiesituatie of de macro-economische situatie.

Studie 4. Baanonzekerheid

In de vierde studie onderzoek ik de invloed van baanonzekerheid op de tevredenheid met de partnerrelatie. Hiervoor bestudeer ik de baanonzekerheid van zowel het individu als van de partner. Daarnaast onderzoek ik in hoeverre de gevolgen van baanonzekerheid voor de kwaliteit van de partnerrelatie verschillen tussen mannen en vrouwen en tussen mensen met een hoger en lager opleidingsniveau. Op basis van het 'spillover-crossover model' verwacht ik dat wanneer individuen of partners meer baanonzekerheid hebben, mensen minder tevreden zijn met de partnerrelatie. Daarnaast wordt verwacht dat deze invloeden verschillen tussen mannen en vrouwen. Tevens verwacht ik dat de invloed van baanonzekerheid op relatietevredenheid sterker is voor lager dan voor hoger opgeleiden vanwege verschillen in financiële hulpbronnen en inzetbaarheid op de arbeidsmarkt. De hypothesen toets ik door gebruik te maken van het Nederlandse LISS-panel (2008-2015).

De resultaten laten zien dat zowel mannen als vrouwen minder tevreden zijn met de partnerrelatie wanneer zij meer onzekerheid over hun baanbehoud ervaren, hoewel het bewijs overtuigender is voor mannen dan voor vrouwen. Daarnaast zorgt de baanonzekerheid van mannen ervoor dat vrouwen minder tevreden zijn met de partnerrelatie, maar niet andersom. Vooral voor lager opgeleiden blijkt de relatietevredenheid sterker beïnvloed te worden door baanonzekerheid en dit lijkt voornamelijk te gelden voor mannen en in mindere mate voor vrouwen. Ik concludeer dat de eigen baanonzekerheid de tevredenheid met de partnerrelatie beïnvloed, wat bewijs is voor de spillover invloed van baanonzekerheid. Tevens laat deze studie zien dat de baanonzekerheid van de partner enkel effect heeft op de relatietevredenheid van vrouwen. Lager opgeleiden zijn vooral kwetsbaar voor baanonzekerheid aangezien zij relatief vaak in onzekere arbeidsmarktposities zitten en hierdoor sterker worden beïnvloed dan hoger opgeleiden.

Conclusie

De kwaliteit van hedendaagse partnerrelaties wordt beïnvloed door grote maatschappelijke ontwikkelingen. Doordat vrouwen meer zijn gaan participeren op de arbeidsmarkt, is de verdeling van werk en inkomen tussen partners veranderd. Tevens hebben macro-economische ontwikkelingen de economische condities van koppels veranderd. In dit proefschrift heb ik laten zien dat deze nieuwe verdelingen van werk en inkomen en economische problemen binnen gezinnen de kwaliteit van partnerrelaties hebben beïnvloed.

Allereerst blijkt dat mannen meer tevreden zijn met de partnerrelatie wanneer de verdeling van werk tussen partners in overeenstemming is met zijn genderrolhouding. Mannen blijken meer tevreden te zijn met hun relatie wanneer zij de belangrijkste kostwinner zijn of wanneer beide partners ongeveer evenveel bijdragen. Het is afhankelijk van zijn genderrol-opvattingen of een traditionele of meer gelijke verdeling van werk leidt tot een betere relatie. Ongeacht de genderrol-opvattingen, worden mannen worden minder tevreden met de partnerrelatie wanneer zijn vrouwelijke partner de kostwinner wordt. Vrouwen lijken minder beïnvloed te worden door de verdeling van arbeid met hun partner, tot op het punt wanneer zij de kostwinner wordt. Vrouwelijke kostwinners blijken minder tevreden met de partnerrelatie dan vrouwen met andere verdelingen van werk. Hieruit blijkt dat de toename van vrouwen tot de arbeidsmarkt weinig invloed heeft gehad op hoe tevreden mensen zijn met de partnerrelatie, zolang deze toegenomen arbeidsparticipatie niet leidt tot vrouwelijke dominantie, namelijk zolang vrouwen niet de belangrijkste kostwinner worden. Dit onderzoek toont de continuïteit van traditionele genderrol-opvattingen in de maatschappij aan en de invloed daarvan op partnerrelaties. Gender en genderverwachtingen blijven een belangrijke rol in relaties spelen in huidige Westerse samenlevingen.

Naast de verdeling van werk tussen partners beïnvloeden ook economische problemen de kwaliteit van de partnerrelatie. Koppels die te maken hebben met werkloosheid of financiële problemen blijken minder tevreden te zijn met hun partnerrelatie. Naast huidige economische problemen blijkt ook dat mensen minder tevreden zijn met hun partnerrelatie wanneer zij economische problemen verwachten, zoals wanneer zij onzeker zijn over hun baanbehoud of een daling in inkomen verwachten. Lager opgeleiden worden relatief vaak getroffen door economische problemen en zij ervaren hierdoor vaker de negatieve invloed op hun relatie. Daarnaast worden de relaties van lager opgeleiden sterker beïnvloed door economische problemen (specifiek door baanonzekerheid) dan relaties van hoger opgeleiden. Dit kan zorgen voor een accumulatie van problemen onder lager opgeleiden.

De invloed van economische problemen op relaties verschilt tussen mannen en vrouwen, voornamelijk de invloed van de werkomstandigheden van de partner. Vrouwen worden minder tevreden met de partnerrelatie wanneer mannen werkloos worden of onzekerder worden over hun baanbehoud. Echter, mannen worden niet of minder beïnvloedt door de werkloosheid of zorgen over baanbehoud van hun partner. Dit suggereert dat de baanpositie van mannen belangrijker wordt gevonden dan de baanpositie van vrouwen. Dit kan veroorzaakt worden doordat mannen relatief vaak de belangrijkste kostwinner zijn, of door gendernormen. Het blijkt dat de invloed van werkfactoren op partnerrelaties relatief universeel is, uitgezonderd verschillen tussen mannen en vrouwen. De invloed van werkfactoren op de tevredenheid met de partnerrelatie blijkt grotendeels hetzelfde tussen mensen met en zonder kinderen en onafhankelijk te zijn van macro-economische omstandigheden.

Ik begon dit onderzoek met de vraag in welke mate werkfactoren de kwaliteit van de partnerrelatie beïnvloeden. Dit onderzoek toont duidelijk aan dat het werk en gezin verbonden zijn en dat werk, naast inkomensvergaring, de partnerrelatie beïnvloedt. Over het algemeen blijken mensen minder tevreden met de partnerrelatie wanneer zij economische problemen ervaren of de verdeling van werk sterker afwijkt van een traditionele verdeling, voornamelijk wanneer vrouwen de belangrijkste kostwinner zijn. Traditionele ideeën over man-vrouw rollen blijven van invloed in partnerrelaties in huidige Westerse samenlevingen.

About the author

Niels Blom was born in Wageningen, the Netherlands, on the 14th of January 1991. He obtained his Bachelor's degree in Sociology (2012) and his Research Master's degree in Social and Cultural Science (2014) at Radboud University in Nijmegen. In September 2014 Niels started as a PhD candidate at the Interuniversity Center for Social Science Theory and Methodology (ICS) and the Department of Sociology at Radboud University in Nijmegen; this resulted in the present dissertation. He conducted a research stay for three months in 2017 at the Department of Social and Political Sciences at the University of Melbourne, Australia, hosted by Dr. Belinda Hewitt. In October 2018 he started as a postdoctoral researcher at the Department of Social Statistics and Demography at the University of Southampton and the Centre for Population Change in the United Kingdom. His main research interests include family life, wellbeing and health, employment, and social inequality.

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Partner relationship quality under pressing work conditions

Longitudinal and cross-national investigations

The romantic couple relationship is a cornerstone of many people's daily lives and the quality of this relationship is especially important. The quality of contemporary partner relationships seems to have been affected by major societal developments. Women's increased participation in the labor market has brought new divisions of labor between partners and major macro-economic developments have changed the economic conditions of couples. This book investigates the influence of employment on the quality of the partner relationship, and how this differs by gender, gender norms, the family context, and the macro-economic situation. The division of labor within couples influences relationship quality and people are especially less satisfied with the relationship when women become the primary earner. Additionally, those who are unemployed or experiencing financial problems are less satisfied with their relationship, as were those who were insecure in their job position. Especially men's employment seems to affect the quality of the partner relationship, showing that traditional conceptions of gendered behavior continue to play an important role in contemporary partner relationships.