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The Work-Family Balance: Making Men and Women Happy

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Abstract

The paper analyses how individuals' subjective well-being, measured both in terms of life satisfaction and mental health, is affected by the work-family balance. We measure the work-family balance so as to encompass individuals' roles as a partner, parent and employee. We, also, consider life satisfaction in partnership, family, and work as result of satisfaction with the innate psychological needs of competence, autonomy, and relatedness. Analyses are conducted on sub-samples of parents and working parents from the German Family Panel. Findings show that, even though satisfaction in the three roles is important for both men and women, differences between the sexes persist, and that these are rooted in traditional gender roles. In particular, women's perception of being a "good mother" and men's perception of being a "good worker" are crucial for subjective emotional and cognitive well-being.

I. **Introduction**

Sociologists and demographers have long argued that the balance between work and family means that time and efforts are allocated to both life spheres, and, therefore, that there is little natural conflict associated with them (Voydanoff, 2005; Kirchmeyer, 2000). Several studies conceptualise, in fact, any work-family conflict as being the result of a lack of time and energy for the two spheres: an imbalance, it is suggested, usually results in negative performance and means distress in both life domains. However, this position does not take into account two important issues, which are, instead, central in the psychological literature.

The first issue regards the traditional definition of work and family conflict. As Senécal and colleagues (2001) highlight, studies on the work and family conflict have focused on commitment to each life sphere in terms of time, strain and behaviour: e.g. Carlson *et al.*, 2000; MacEwan and Barling, 1994. These studies do not consider the satisfaction derived from being committed to corresponding roles. Satisfaction with a given role is usually seen as an outcome of the work-family balance, instead of being a component of the balance itself (Frone *et al.*, 1992; Voydanoff, 1988). An attempt to consider satisfaction within roles as part of the work-family balance has been made by Frone and colleagues (1997), and also by Greenhaus and Beutell (1985). However, they focus only on work and family distress, measured as the individual's emotional reaction: they ignore the satisfaction derived from the commitment to each role in terms of the individual's intrinsic motivation. The importance of considering not only the level of commitment in each role, but also satisfaction derived by that is, on the contrary, well established in psychology. The Self-Determination Theory (SDT henceforth, Ryan and Deci, 2000) provides the most important theoretical framework here. According to SDT, the satisfaction of three basic psychological needs (autonomy, competence and relatedness) in family and work roles serves as the prerequisite for reaching higher overall subjective well-being (SWB from here onwards): i.e. the level of satisfaction with these basic psychological needs mirrors the individual's perception of being competent, effective

and socially rewarded in family and work life. The higher the satisfaction of basic psychological needs, the higher the commitment, and the higher the SWB.

The second issue concerns “self-complexity” (Linville, 1985), which refers to the way individuals identify themselves with a set of social roles. It means that a number of social roles, whose relevance for the individual can change over time, defines the individual’s identity: e.g. Greenwald & Pratkanis, 1984; Kihlstrom and Cantor, 1983; Kuiper and Derry, 1981; Markus and Nurius, 1986; Rosenberg & Gala, 1985. Self complexity implies that individuals can compensate for negative experiences in one role with positive experiences in another, positive experiences potentially buffering negative ones. In this way a bad performance in one role does not necessarily decrease the individual’s overall SWB (Barnett, 1994; Greenhaus and Powell, 2006).

Furthermore, recent studies have highlighted that the average short-term effect of a child on the subjective well-being of a parent is negative (Kohler and Mencarini, 2016; Margolis and Myrskylä, 2015). However, it is mediated by the work-family conflict (Matysiak *et al.*, 2016) and – at least for women – the couple’s relationship and dissatisfaction with the work-family balance plays an important role (Luppi, 2016).

Building on this recent research, our paper focuses on parents’ attempt to reconcile work and family. We argue that satisfaction with the basic psychological needs and not only with the level of the engagement in work and family roles, explains SWB among parents. In order to test this hypothesis, we adopt the psychological operationalization of the work-family balance referred to as “role-related satisfaction”, namely the perception of being competent, effective and socially rewarded in each role, as theorized by the SDT. Specifically, in our study we analyse: whether [1] work and family roles are interrelated and influence the overall SWB, possibly through compensation effects; whether [2] work and family roles have equal importance in determining overall SWB by gender; and [3] whether satisfaction of basic psychological needs within each role affects SWB according to the intrinsic relevance of the role. Gender differences might explain the differing importance of work and family roles for the SWB of mothers and fathers. We expect, for example, that satisfaction of the

basic psychological needs in parenting will be more important for mothers' SWB. After all, mothers – more than fathers – reduce their labour market participation as family duties grow after the birth of a child, hence weakening their bargaining power in terms of household responsibilities and preferences (Bunning, 2015).

Our study considers a sample of individuals from the third (2011/12) and fourth (2012/13) waves of the German PAIRFAM¹ panel survey. We analyse the relationship between the work-family balance and SWB for sub-samples of parents and working parents, and we do so by gender. The PAIRFAM survey is particularly well suited for our research questions, as it includes role-specific measures ideal for measuring the satisfaction of basic psychological needs and various variables assessing the individuals' overall subjective well-being.

Gender differences are relevant in a context like this, where traditional gender values are still common (Hofäcker, 2013): the female homemaker and male breadwinner model is frequently met with among German couples with children, the result, in part, of a limited supply of publicly-subsidised childcare institutions (Cooke, 2011); one reason for very low fertility².

II. Literature Review

The work-family conflict and subjective well-being

Balancing social roles is important for an individual's SWB. Indeed, we have empirical evidence showing that conflict between life domains is related to negative moods and even depression (Bedeian *et al.*, 1988; Frone *et al.*, 1996; 2000; Allen *et al.*, 2000). As already noted above, in reference to the equilibrium between the resources and the costs associated with the roles played by the individual in family and at work (Kossek and Ozeki, 1998), the work-family balance means “achieving satisfying experiences in all life domains, [which] requires personal resources such as energy, time and commitment to be well distributed across domains” (Kirchmeyer, 2000, p.81).

Generally speaking, people deal successfully with the complexity of social roles and life spheres, and this allows them to interact in several different social contexts. Balancing roles is not

always straightforward, especially when demands from one role are in conflict with needs associated with others (Voydanoff, 2005). However, there is nothing intrinsically detrimental about managing many roles: an individual's well-being need not necessarily suffer. According to Linville's self-complexity theory (Linville, 1985), individuals mentally represent themselves across a large set of domains, and, Linville argues, that positive experiences in one domain can balance out negative experiences in other domains. Consistent with this, the more roles that are taken up by the individual, the more there are resources that one can access to fulfil needs and maximize SWB (Barnett and Hyde, 2001). The idea of self-complexity (Linville, 1985, 1987) suggests that individuals who have invested in many roles in society increase their chances of having at least one successful role, which allows them to buffer negative experiences elsewhere. For example, working mothers and fathers can have positive work-family interactions (Wayne, *et al.*, 2007; Greenhaus and Powel, 2006). Rothbard (2001) finds that fathers give more time and energy to the family after having positive experiences with work, while mothers are more focused on work after having experienced home-life positively. Work satisfaction can also contribute to marital satisfaction, and *vice-versa* (Heller and Watson, 2005). In this sense, Linville's idea of "self-complexity" questions the traditional definition of the work-family balance and some of the assumptions behind it. It is not necessary to be satisfied in each life sphere in order to experience high overall life satisfaction: a positive experience in one (or more) roles buffers negative experiences elsewhere. It is worth remembering, though, that the compensation effect among roles can also work the other way. Failure in one important role can decrease the returns from other spheres. Managing, too, many social roles might generate conflict among them: e.g., parents' work-family reconciliation. A number of studies have found that parents are more likely to experience work-family conflict than non-parents (for a meta-analysis see Byron, 2005), particularly when children are young (Higgins *et al.*, 2000). This naturally leads to a reduction in parents' life satisfaction (Matysiak *et al.*, 2016).

Psychological studies have similarly found negative consequences for work-family conflict in terms of mental health outcomes, such as depression (Frone *et al.*, 1996; 2000; Allen *et al.*, 2000).

There is evidence for both “work to family” and “family to work” conflict, in cross sectional and longitudinal analyses (Frone *et al.*, 1997). Time pressure, from work schedules and deadlines, children’s needs and strict school schedules, is commonly experienced by parents. Parents subsequently feel that they have a lack of control over activities and they feel inadequate at not being able to reach goals, with consequent anxiety and depression (Williams *et al.*, 1991). Clearly, the more activities and roles the individual covers, the more likely they are to experience low control and, consequently, low psychological functioning. However, buffering effects can compensate for negative pressure (Hammer *et al.*, 2005), giving positive mental health outcomes (Edwards and Rothbard, 2000; Grzywacz, 2000; Stephens *et al.*, 1997; Wayne *et al.*, 2004).

Because of the persistence of traditional social expectations with work and family tasks, gender often defines whether an individual will feel depressed over work and family roles. In an early study, Schooler *et al.* (1983) found that the perception of failing to control household tasks is related to instances of depression in both working and non-working women: here “failing to control” means having insufficient resources to manage demands from housework and family roles (Lennon and Rosenfield, 1992). However, this was not the case with men. Hill (2005) found similar results. Working fathers reported less work-family conflict and less depression than working mothers.

Subjective well-being and the satisfaction of basic psychological needs

SWB is usually conceptualized as the combination of three components: positive affect, negative affect and life satisfaction (Andrews and Withey, 1976). The first two represent the emotional side of SWB, whereas the third is the cognitive assessment of present life condition. Current literature on SWB still relies on this structure (for an overview: Sirgy, 2012), and in most of the economic or demographic literature, SWB is measured either by happiness or life satisfaction, addressing, respectively, the affective and the cognitive side of the concept (Campbell *et al.*, 1976). In some cases, the affective element is also represented by positive and negative emotions, depression scales and mental health measures (e.g., Moor and Komter, 2012).

Self Determination Theory (SDT), an important psychological theoretical framework on motivation and personality (Deci and Ryan, 1985, 2000), has three basic psychological needs, namely *autonomy*, *competence* and *relatedness*. The satisfaction of these, it is argued, serves as the foundation for an individual's SWB. *Autonomy* is the need to experience behaviour as self-endorsed and volitional (DeHaan and Ryan, 2014), and it is experienced when people act according to their own choices. *Competence* is related to an individual's capability and effectiveness in important activities in life (*ibidem*). *Relatedness* is the need to feel connected and significant to others (*ibidem*), and it involves the feeling of belonging to social groups or being supported by/ or being supportive to others. The satisfaction of these three basic psychological needs has a robust positive association with SWB measures (e.g., Baard *et al.*, 2004; Deci *et al.*, 2001), and a negative one with depression and anxiety indicators (Ryan and Deci, 2000). More specifically, SDT posits that being involved in activities can affect an individual's SWB if the behavioural motivation works. Self-determined, intrinsically motivated activities – i.e. those fitting an individual's basic psychological needs – are able to increase satisfaction. Behaviour, on the other hand, resulting from external pressures and those not perceived as intrinsically motivated – i.e. those that are not self-determined – invariably decrease one's well-being. Therefore, satisfaction within a life domain is the result of basic needs satisfaction in the same domain (e.g., Milyavskaya and Koestner, 2011).

The satisfaction of basic psychological needs depends not only on an individual's innate capabilities and resources, but also on context (Ryan and Deci, 2000). To help individuals maintain their level of well-being, the social environment should satisfy all three needs. However, Sheldon and colleagues (1996 and 1997) argue that the degree to which satisfaction in each life sphere contributes to SWB depends on the *autonomy* that the individual experiences in each role. Similar results for *autonomy* and *competence*, particularly in the work sphere, have also recently been pointed to (Deci *et al.*, 2001; Baard *et al.*, 2004). Meanwhile, the satisfaction of *autonomy* and *relatedness* needs is important for the quality of a couple's relationship, the balance between them has been identified as

the main condition for partners to experience a mature relationship (Knee *et al.*, 2005; Schmahl and Walper, 2012).

As far as we know, Senécal and colleagues (2001) is the only study that takes into account basic psychological needs satisfaction as a precondition for reaching a good work-family balance and, therefore, high SWB. The authors claim that time spent in doing activities does not reflect the motivation of the individual towards the activity. Their main findings support SDT. They show that a self-determined motivation to act in a given way– i.e. the satisfaction of basic psychological needs behind work and family roles – is a precondition for avoiding work-family conflict and consequent emotional exhaustion.

III. Data, method and indexes construction

The PAIRFAM longitudinal dataset

Our research is based on data from the German Family Panel³ (PAIRFAM). The dataset provides longitudinal information and includes all the variables we need to measure basic psychological needs satisfaction at work and in the family, plus several measures of overall subjective well-being. The survey focuses on partnership development and family processes. However, it collects information on issues related to other life domains, individual's personality, preferences, expectations and needs. PAIRFAM was launched in 2008 and currently has six waves. The original sample had more than 12,000 individuals born in the 1971-73, 1981-83 and 1991-93 cohorts. Because some pieces of information are collected only in specific waves, we restricted our sample to waves 3 (2011/12) and 4 (2012/13). Our sample is composed of 3,027 observations, corresponding to 1,510 individuals (715 men and 795 women), all part of a couple. For present purposes, the sample has been divided into six sub-samples: women and men; mothers and fathers; working mothers and working fathers. In the sub-samples of parents, we have 515 fathers and 612 mothers, while in the sub-sample of working parents, we have information on 493 fathers and 404 mothers.

Life satisfaction and mental health

Subjective well-being is collected through two main indicators: [1] life satisfaction, measured on a scale from 0 (very dissatisfied) to 10 (very satisfied), with an average of 7.74, and with no significant differences by gender (see Appendix, Table 2A); and [2] mental health, measured through a depressiveness⁴ scale, based on the ten items of the “State-Trait-Depression Scale” (STDS Form Y-2; Spaderna *et al.*, 2002). Five items assess positive moods (e.g. *happy, feel good, secure, calm* and *enjoy life*), and five items assess negative moods (e.g. *melancholy, depressed, sad, desperation* and *gloomy*). The question asks “How often did you feel [a mood of this kind] in the past four weeks?” and responses range from 1 (almost never) to 4 (almost always). We created two Mental Health Indices, one based on positive items (Positive Index - PI) and one based on negative items (Negative Index - NI), calculating the mean score⁵:

$$PI = \frac{\sum X_{i,PI}}{N - X_{i,PI}}$$

$$NI = \frac{\sum X_{i,NI}}{N - X_{i,NI}}$$

where $X_{i,PI}$ and $X_{i,NI}$ refer to the scores for positive and negative items, while $N - X_{i,PI}$ and $N - X_{i,NI}$ count, respectively, the number of positive and negative items. The distribution of the dependent variables in the sub-samples are shown in the Appendix (Table 2A).

Basic psychological needs

The PAIRFAM survey gathers information on basic psychological needs satisfaction in the three life spheres of interest: intimate relationships, work and parenting⁶. In the PAIRFAM questionnaire the level of agreement with each statement is asked (see Table 1), scaling answers from 1 (do not agree) to 5 (agree). In order to work with reliable measures of the three needs, we have selected those items, which are more comparable with the validated scale for *autonomy, competence, and relatedness*⁷.

[Table 1 about here]

We then ran confirmative factor analyses as a check for whether the three-factor structure of the items fits the data: items that express negative attitudes have been converted to their positive counterparts. We performed separate analyses for each life domain, using the Varimax rotation⁸ of the loadings matrix. In the couple relationship domain, the first factor explains 51% of the total variance, the second accounts for 45% and the third for 22%. In the work domain, the first factor explains 85% of the variance, the second 36% and the third 22%. In the parenting sphere the first factor accounts for 65% of the variance, and 36% and 32% for, respectively, the second and the third. Table 2 shows the factor loadings associated to each item, for each of the three factors: i.e. how the variables are weighted for each factor, but also the correlation between the variables and the factor.

Results from the analyses, therefore, suggest the presence of all three dimensions, which correspond exactly to the division of the items among the three basic psychological needs.

[Table 2 about here]

Finally, the items have been combined into nine indices, calculated as followed:

$$BPN = \frac{\sum X_{i,BPN}}{N - X_{i,BPN} \times 5}$$

where *BPN* refers to the basic psychological needs (*autonomy*, *competence* and *relatedness*) calculated in each life sphere (intimate relationship, work, and parenting), and subscript *i* is for the items within each need. The number of items has been multiplied by five, so the index scores on the

same scale as the items related to basic psychological needs. The distribution of the indices for the basic psychological needs in each sub-samples can be found in the appendix (Table 2A).

OLS and Fixed Effects regressions

We model the relationship using both Ordinary Least Squares (OLS) and Fixed Effects (FE) regressions⁹ with robust standard errors. We do so in order to evaluate the effect of the satisfaction of basic needs in the relationship, parenting, and working spheres of the individual's SWB (life satisfaction and mental health). OLS may show biased results: for instance, when there are unobserved variables that are correlated with the regressors, but that are not accounted for in the model. As such, FE might stand as an alternative methodology that accounts for unobserved time-constant individual-specific characteristics.

The multivariate model using OLS allows us to verify the presence of the expected correlations between the three needs and SWB. The FE model takes into account whether the actual satisfaction of the basic needs is related to a change in individuals' SWB. The models have been run separately for women and men, mothers and fathers, as well as for working mothers and working fathers.

We included the individual's socio-economic characteristics as control variables (for the sample distribution see the Appendix, Table 3A). We looked at: age; education (primary, secondary, and tertiary); and the net monthly equivalent income; the occupational status of the individual, distinguishing between full-time and part-time workers, self-employed, unemployed, those in parental leave, and a general "inactive" category; the number of children in the household and the age of the youngest child; the health status of the respondent on a subjective 4-point scale measure (from "bad" to "very good"); residence in metropolitan or rural areas of the country; the age of the partner; and the frequency of sexual intercourse over a month. We also considered the relative amount of housework and childcare done by the partners to disentangle the effect of needs satisfaction related to the work-family balance. The partners' engagement in work and family tasks is operationalized as

what is perceived as an equal share of housework and childcare between the couple (see Appendix Table 4A). There was no information on the amount of time spent on unpaid and paid work, or, for that matter, information on the employment condition of the partner: this obviously places a limit on our analysis.

IV. Results from multivariate regressions

Life satisfaction

The estimations using the OLS model show the determinants of life satisfaction (see Table 3, and Table 5A for complete models).

As in the relevant literature, we see that satisfying basic psychological needs correlates significantly with the presence of a high level of overall life satisfaction, with some gender differences. The need for *competence* is a significant predictor for a high level of life satisfaction across all the spheres, but it is more evident in the work sphere for men and in partnership with women. A feeling of competence in parenting is associated with higher parental well-being, but satisfaction in parenting is always a significant determinant for mothers' SWB.

Looking at the FE estimations, satisfaction in work-related roles is important only for men: this is especially true of competence and autonomy in work. Conversely, the parenting effect is especially relevant for women, revealing the crucial role that motherhood plays in women's identity. In fact, there is a confounding effect among women's roles when we consider parenting. According to the self-complexity hypothesis, need satisfaction within an especially relevant role can buffer¹⁰ the effects of basic needs satisfaction in other roles and so affect the individual's subjective well-being more generally. This seems to be the case with women and parenting.

Running separated models for each life sphere for women, we have no significant effects in the FE estimation, except for *competence* in parenting for women. Nevertheless, by only including parenting in the FE model with the work and relationship spheres we also obtain significant results for the need for relatedness in partnership and the need for *autonomy* at work. *Relatedness* in a

partnership is associated with the feeling of being supported by - and being supportive to - the partner. This seems to be especially important after controlling for a mother's satisfaction within her parental role, as support from the partner might increase the life satisfaction of a mother who is already satisfied with her parenting. A similar set of considerations can be made with the mother's role in the work sphere. Enjoying *autonomy* at work becomes a relevant issue after controlling for women's satisfaction with their role as parents.

[Table 3 about here]

Mental Health

As noted above, we provide estimations for the effects of basic needs satisfaction in the three life spheres of relationship, parenting and work: in other words, we offer an index for positive and negative emotions.

Results for the *positive index* are generally similar to those obtained earlier from life satisfaction. The need for *competence* is, once again, the strongest predictor for higher levels of mental health (see Table 4 – OLS estimations)¹¹. Work and family spheres also weigh differently on women's and men's mental health: satisfaction in the relationship and parenting spheres show how significant relationships embody the most positive emotions for women, while the work sphere comes out as being especially important for the well-being of men. Accordingly, feeling competent in intimate relationships for men and in parenting for women boosts mental health.

Results from OLS models are further supported by FE estimations. If we look at the subsample of parents, being competent as a partner and worker is especially important for the fathers' well-being. Mothers, on the other hand, increase their well-being when they feel competent in their partnership and competent as a parent. Being supportive and supported by the partner and being competent as a father or mother is particularly important for working parents. Mutually supportive partners can probably better face the difficulties related to work and family commitments. Moreover, working fathers need to feel good about being a parent and a worker in order to increase their mental well-being, while working mothers need to perceive themselves as good mothers with supportive

relationships at work. As with the life satisfaction results, we find confounding effects among mothers' roles, but not among fathers' roles. Here again for mothers, FE coefficients in the relationship sphere, become significant after the parental sphere is included in the model. These results suggest that the persistence of traditional gender roles is there in the way that people prioritize their roles, and that it is still culturally rooted.

Comparing the results for positive and negative mental health indices we notice that the two are not completely symmetrical. OLS results for the two emotions (Table 5) are comparable with each other, while those from FE regressions are less so. As with life satisfaction, *competence* proves to be the strongest predictor for negative emotions using OLS. Partnership and parenting again stand out for women, while results from all three spheres are significant for men, with work in first place. This datapoint stands out with the FE models: men who are unsatisfied in work-related roles are more likely to become depressed.

Our results support the literature on the gendered effect of the work-family balance on mental health. Feeling less competent in their jobs, as well as experiencing less *autonomy* and *relatedness*, increases symptoms of depression among fathers. Feeling incompetent in their parental role as mothers, and in general having low satisfaction with parenting needs, increases the likelihood of a mother becoming depressed. The absence of buffering or confounding effects for the negative mental health index implies that, while positive emotions can be affected by spill-over effects, negative emotions are more rooted in the life sphere to which they refer.

[Table 4 about here]

[Table 5 about here]

V. Conclusion

This study offers an innovative take on the conceptualisation and operationalization of the work-family balance, as well as its implications for women's and men's SWB. Our study is

multidisciplinary, incorporating a traditional sociological approach to the work-family balance and a psychological approach to SWB, using the Self Determination Theory.

Our results support the idea that the satisfaction of basic psychological needs within work and family spheres affects women's and men's overall life satisfaction and mental health differently. Not surprisingly, in Germany, where traditional gender values are still widespread, satisfaction with parenting and the life of the couple is more relevant for women's SWB, while the work sphere, i.e. satisfaction with a work-related role, is more relevant for men's well-being. Parenting is crucial for mothers' SWB. Indeed, it has a buffering effect for basic psychological needs from motherhood to the partnership and working sphere. The satisfaction of basic psychological needs in parenting, and the need for competence in particular, is, then, the most important predictor of a mother's life satisfaction and positive emotions. Dissatisfaction in intimate relationships and in parenting is the strongest predictors for depression in both men and women. With fathers, meanwhile, being unsatisfied in the workplace is linked to negative emotions and depression.

However, both women and men need to feel satisfied within each role in order to be consciously happy about their life. All three life spheres – and in particular feeling competent within each of them – are important in giving a sense of meaning, and this is true regardless of gender. At the same time, the family sphere has additional importance in supporting individuals' well-being by satisfying their *relatedness* needs.

The difference in the way that men and women conceive and perceive their SWB depends on differing priorities. Family represents the most important sphere for an individual's well-being. But the motivation behind work and family roles are not the same for mothers and fathers. As we have noted, the relative importance of each life sphere seems to be still partially rooted in traditional gender roles. In the cognitive evaluation of their lives, women and men face the need to feel competent as parents, workers and partners in order to be satisfied and to experience positive emotions. However, being a “good mother” is particularly relevant for women's SWB, and being “a good worker” for

men's SWB. Work-related stress affects working fathers much more than working mothers, women, in turn, become more depressed by difficulties within their family roles.

VI. References

- Allen, T. D., Herst, D. E. L., Bruck, C. S., and Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research, *Journal of Occupational Health Psychology*, **5**, 278–308.
- Andrews, F. M., and Withey, S. B. (1976). *Social indicators of well-being: America's perception of life quality*. New York: Plenum.
- Baard P, Deci E, and Ryan R. (2004). Intrinsic need satisfaction: a motivational basis of performance and well-being in two work settings, *Journal of Applied Social Psychology* **34(10)**: 2045-2068.
- Barnett, R. C. (1994). Home-to-work spillover revisited: A study of full-time employed women in dual-earner couples. *Journal of Marriage and the Family*, 647-656.
- Barnett R, and Hyde J. (2001). Women, men, work and family: An expansionist theory, *American Psychologists*, **56(10)**: 781-786.
- Bedeian, A. G., Burke, B. G., and Moffett, R. G. (1988). Outcomes of work-family conflict among married male and female professionals, *Journal of management*, **14(3)**, 475-491.
- Broeck, A., Vansteenkiste, M., Witte, H., Soenens, B., and Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology*, **83(4)**, 981-1002.
- Bunning M. (2015). What Happens after the ‘Daddy Months’? Fathers’ Involvement in Paid Work, Childcare, and Housework after Taking Parental Leave in Germany, *European Sociological Review*, **31(6)**, 738–748.
- Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents, *Journal of vocational behavior*, **67(2)**, 169-198.

- Campbell A., Converse P. E. and Rodgers W. L. (1976), *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.
- Carlson, D. S., Kacmar, K. M. and Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational behavior*, **56(2)**, 249-276
- Cooke, L. P. (2011). *Gender-Class Equality in Political Economies*. New York: Routledge
- Cummins R. A. (1996), The domains of life satisfaction: An attempt to order chaos, *Social Indicators Research*, **38(3)**: 303-328.
- Deci, E. L., and Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality, *Journal of research in personality*, **19(2)**, 109-134.
- Deci, E. L., and Ryan, R. M. (2000). The " what" and" why" of goal pursuits: Human needs and the self-determination of behavior, *Psychological inquiry*, **11(4)**, 227-268.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., and Kornazheva, B. P. (2001). Need Satisfaction, Motivation, and Well-Being in the Work Organizations of a Former Eastern Bloc Country: A Cross-Cultural Study of Self-Determination, *Personality and Social Psychology Bulletin*, **27(8)**, 930-942.
- DeHaan C, and Ryan R. (2014). *Symptoms of wellness: Happiness and eudaimonia from a self-determination perspective*. In K Sheldon and R Lucas (eds.). *Stability of happiness: Theories and evidence on whether happiness can change*. Elsevier.
- Edwards, J. R., and Rothbard, N. P. (2000), Mechanisms linking work and family: Clarifying the relationships between work and family constructs, *Academy of Management Review*, **25**, 178–199.
- Frone, M. R., Russell, M. and Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: testing a model of the work-family interface. *Journal of applied psychology*, **77(1)**, 65.

- Frone, M. R., Russell, M., and Barnes, G. M. (1996). Work–family conflict, gender, and health-related outcomes: A study of employed parents in two community samples. *Journal of occupational health psychology*, **1(1)**, 57.
- Frone, M. R., Russell, M., and Cooper, M. L. (1997). Relation of work–family conflict to health outcomes: A four-year longitudinal study of employed parents, *Journal of occupational and organizational psychology*, **70(4)**, 325-335.
- Frone, M. R. (2000). Interpersonal conflict at work and psychological outcomes: testing a model among young workers, *Journal of occupational health psychology*, **5(2)**, 246.
- Greenhaus, J. H. and Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of management review*, **10(1)**, 76-88.
- Greenhaus, J. and Powell, G. (2006). When work and family are allies: a theory of work-family enrichment, *The Academy of Management Review* **31(1)**, 72-92.
- Greenwald, A. G. and Pratkanis, A. R. (1984). The self. In R. S. Wyer & T.K.Srull (Eds.), “Handbook of social cognition”. Hillsdale, NJ: Erlbaum
- Grzywacz, J. G. (2000). Work–family spillover and health during mid-life: Is managing conflict everything? *American Journal of Health Promotion*, **14**, 236–243.
- Hammer, L. B., Cullen, J. C., Neal, M. B., Sinclair, R. R., and Shafiro, M. V. (2005). The longitudinal effects of work-family conflict and positive spillover on depressive symptoms among dual-earner couples, *Journal of occupational health psychology*, **10(2)**, 138.
- Heller D, and Watson D. (2005). The dynamic spillover of satisfaction between work and marriage: The role of time and mood, *Journal of Applied Psychology*, **90(6)**, 1273-1279.

- Higgins, C., Duxbury, L., and Johnson, K. L. (2000). Part-time work for women: does it really help balance work and family? *Human Resource Management*, **39(1)**, 17-32.
- Hill J.E. (2005), Work-Family Facilitation and Conflict, Working Fathers and Mothers, Work-Family Stressors and Support, *Journal of Family Issues*, **26(6)**, 793-819.
- Hofäcker, D., Stoilova, R., and Riebling, J. R. (2013). The gendered division of paid and unpaid work in different institutional regimes: Comparing West Germany, East Germany and Bulgaria. *European sociological review*, **29(2)**, 192-209.
- Huinink J, Brüderl J, Nauck B, Walper S, Castiglioni L, and Feldhaus M. (2011). Panel Analysis of Intimate Relationships and Family Dynamics (PAIRFAM): Conceptual framework and design. *Zeitschrift für Familienforschung, Journal of Family Research*, **23**, 77-101.
- Kihlstrom, J. F. and Cantor, N. (1983). Mental representations of the self. In L. Berkowitz (Ed.), "Advances in experimental social psychology". New York: Academic Press.
- Kirchmeyer, C. (2000). Work-Life Initiatives: Greed or Benevolence Regarding Workers' Time?, *Trends in organizational behavior*, **7**, 79-94
- Knee C, Lonsbary C, Canevello A, Patrick H. (2005). Self-determination and conflict in romantic relationship, *Journal of Personality and Social Psychology*, **89(6)**, 997-1009.
- Kohler, H. P., & Mencarini, L. (2016). The Parenthood Happiness Puzzle: An Introduction to Special Issue, *European Journal of Population*, **32(3)**, 327-338.
- Kossek, E., and Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research, *Journal of applied psychology*, **83(2)**, 139.

- Kuiper, N. A., and Derry, P. A. (1981). The self as a cognitive prototype: An application to person perception and depression. In N. Cantor and J. F. Kihlstrom (Eds.), "Personality, cognition, and social interaction". Hillsdale, NJ: Erlbaum
- Lennon, M. C., and Rosenfield, S. (1992). Women and mental health: the interaction of job and family conditions, *Journal of health and social behavior*, 316-327.
- Linville, P. (1985). Self-complexity and affective extremity: Don't put all your eggs in one cognitive basket, *Social Cognition*, **3(1)**, 94-120.
- Linville P. (1987). Self-complexity as a cognitive buffer against stress related illness and depression, *Journal of Personality and Social Psychology*, **52(4)**: 663-676.
- Luppi, F. (2016). When is the second one coming? The effect of couple's subjective well-being following the onset of parenthood, *European Journal of Population*, **32(3)**, 421-444.
- MacEwen, K. E. and Barling, J. (1994). Daily consequences of work interference with family and family interference with work. *Work & Stress*, **8(3)**, 244-254.
- Margolis, R., & Myrskylä, M. (2015). Parental well-being surrounding first birth as a determinant of further parity progression, *Demography*, **52(4)**, 1147-1166.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, **41**, 954-969.
- Matysiak, A., Mencarini, L., & Vignoli, D. (2016). Work–Family Conflict Moderates the Relationship Between Childbearing and Subjective Well-Being, *European Journal of Population*, **32(3)**, 355-379.
- Milyavskaya, M., and Koestner, R. (2011). Psychological needs, motivation, and well-being: A test of Self-Determination Theory across multiple domains, *Personality and Individual Differences*, **50**, 387-391.

- Moor, N., and Komter, A. (2012). Family ties and depressive mood in Eastern and Western Europe. *Demographic research*, **27**, 201-232.
- Reeve, J., & Sickenius, B. (1994). Development and validation of a brief measure of the three psychological needs underlying intrinsic motivation: The AFS scales, *Educational and Psychological Measurement*, **54**, 506-515.
- Rosenberg, S. and Gala, M. A. (1985). The multiplicity of personal identity. In P. Shaver (Ed.), "Review of personality and social psychology". Beverly Hills, CA: Sage.
- Rothbard N. (2001). Enriching or depleting? The dynamics of engagement in work and family roles, *Administrative Science Quarterly*, **46(4)**, 655-684.
- Ryan R, and Deci E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being, *American Psychology*, **55(1)**, 68-78.
- Schmahl F, and Walper S. (2012). Can you relate? The importance of need satisfaction for the quality and progressive union formation process of intimate relationship, *Comparative Population Studies*, **37**, 361-392.
- Schooler, C., Kohn, M.L., Miller, K.A., and Miller, J. (1983). Housework as work, in: C.A. Schooler and M.L. Kohn, eds., *Work and Personality: An Inquiry Into the Impact of Social Stratification*, Norwood, NJ, Ablex Publishing Co.
- Senécal, C., Vallerand, R. J., and Guay, F. (2001). Antecedents and outcomes of work-family conflict: Toward a motivational model, *Personality and Social Psychology Bulletin*, **27(2)**, 176-186.
- Sheldon K, Reis H, and Ryan R. (1996). What makes for a good day? Competence and autonomy in the day and in the person, *Personality and Social Psychology Bulletin*, **22**, 1270-1279.

- Sheldon K, Ryan R, Rawsthorne L, and Ilardi B. (1997). Trait self and true self: cross-role variation in the Big Five traits and its relations with authenticity and subjective well-being, *Journal of Personality and Social Psychology*, **73**, 1380-1393.
- Sirgy, M. J. (2012). *The psychology of quality of life: Hedonic Well-Being, Life Satisfaction, and Eudaimonia*. Dordrecht: Springer Netherlands.
- Spaderna, H., Schmukle, S. C., and Krohne, H. W. (2002). Bericht über die deutsche Adaptation der State-Trait Depression Scales (STDS). *Diagnostica*, **48**, 80-89
- Stephens, M. A. P., Franks, M. M., and Atienza, A. A. (1997). Where two roles intersect: Spillover between parent care and employment, *Psychology and Aging*, **12**, 30–37
- Voydanoff, P. (1988). Work role characteristics, family structure demands, and work/family conflict. *Journal of Marriage and the Family*, 749-761.
- Voydanoff, P. (2005). Consequences of boundary-spanning demands and resources for work-to-family conflict and perceived stress, *Journal of occupational health psychology*, **10(4)**, 491.
- Wayne, J. H., Musisca, N., and Fleeson, W. (2004). Considering the role of personality in the work–family experience: Relationships of the Big Five to work–family conflict and facilitation, *Journal of Vocational Behavior*, **64**, 108–130.
- Wayne J, Grzywacz J, Carlson D, and Kacmar K. (2007). Work-family facilitation: A theoretical explanation and model of primary antecedents and consequences, *Human Resource Management Review*, **17(1)**: 63-76.
- Williams, K. J., Suls, J., Alliger, G. M., Learner, S. M., and Wan, C. K. (1991). Multiple role juggling and daily mood states in working mothers: An experience sampling study, *Journal of Applied Psychology*, **76**, 664–674.

VII. End notes

¹ This paper uses data from the German Family Panel PAIRFAM, coordinated by Josef Brüderl, Karsten Hank, Johannes Huinink, Bernhard Nauck, Franz Neyer, and Sabine Walper. PAIRFAM is a long-term project funded by the German Research Foundation (DFG).

² The Total Fertility Rate in 2015 was 1.4 children per woman.

³ Panel Analysis of Intimate Relationship and Family Dynamics. A detailed description of the study can be found in Huinink *et al.*, (2011).

⁴ Depressiveness is the tendency towards depressive behaviour, which differs from depression itself: i.e. clinically diagnosed mental illness.

⁵ We did not take the sum of the scores alone, so as not to discard the observations with missing values for some items.

⁶ Basic psychological needs are surveyed in different waves. For the imputation of missing values see the Appendix “Dataset construction and missing values imputation”.

⁷ In order to measure needs satisfaction, a group of scales has been created under the heading “Basic Psychological Needs Scale”: one scale addresses needs satisfaction in overall life, while the others are more specific for life domains. The complete scale has 21 items, even if there are studies that worked with three or nine items (Broek *et al.*, 2010; Reeve and Sickenius, 1994).

⁸ The analyses are robust, dividing the sample by gender.

⁹ We also run random effects (RE) regressions. We evaluate the consistency of the RE estimators comparing them with the FE estimators using the Hausman test. The test does not reveal the higher efficiency of the RE estimator, so we prefer the FE ones.

¹⁰ Buffering or confounding effects are considered when the coefficients of basic psychological needs related to one role change their significance when adding psychological basic needs for another role to the model.

¹¹ Results for the control variables are reported in the Appendix (Table 6A and 7A)

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Table 1. Indicators of the three basic psychological needs: *autonomy, competence and relatedness*.

Life sphere	Basic Psychological Need
Partner Relationship	
I can settle my personal matters by myself without conflicts	<i>Autonomy</i>
I can usually do what I want	<i>Autonomy</i>
I can follow own interests without partner getting upset	<i>Autonomy</i>
I can fulfil my partner's needs very well	<i>Competence</i>
I can make big contribution to making our partnership work	<i>Competence</i>
When I plan something in the partnership I'm able to carry it out	<i>Competence</i>
Partner lets me know that she/he understands me	<i>Relatedness</i>
Partner listens/give chance to express myself	<i>Relatedness</i>
Partner supports me when I have a problem	<i>Relatedness</i>
Work	
I have often to work under heavy time pressure	<i>Autonomy</i>
I often have to deal with too heavy workloads	<i>Autonomy</i>
My occupation provides me with interesting tasks	<i>Competence</i>
My occupation is respected	<i>Competence</i>
My colleagues and I do things together after work	<i>Relatedness</i>
I have close relationship with colleagues	<i>Relatedness</i>
Parenting	
Taking care of my children takes up all my strength, revolves whole life	<i>Autonomy</i>
I feel trapped by my parental duties	<i>Autonomy</i>
Can fulfil child's needs very well	<i>Competence</i>
If I set parenting goals I can reach them	<i>Competence</i>
Can control when I am a good parent or not	<i>Competence</i>
There are enough people who would look after my children	<i>Relatedness</i>
I have enough people I can ask for advice concerning my children	<i>Relatedness</i>

Table 2. Factor loadings of the items associated with the three factors retained form the factor analyses.

	Autonomy	Competence	Relatedness
Partner Relationship			
I can settle my personal matters by myself without conflicts	0.655	0.114	0.086
I can usually do what I want	0.588	0.198	0.142
I can follow own interests without partner getting upset	0.597	0.110	0.174
I can fulfil my partner's needs very well	0.216	0.464	0.347
I can make big contribution to making our partnership work	0.198	0.371	0.268
When I plan something in the partnership I'm able to carry it out	0.486	0.404	0.227
Partner lets me know that she/he understands me	0.107	0.135	0.756
Partner listens/give chance to express myself	0.121	0.102	0.782
Partner supports me when I have a problem	0.102	0.169	0.720
Work			
I have often to work under heavy time pressure	0.755	0.008	-0.013
I often have to deal with too heavy workloads	0.761	-0.007	-0.018
My occupation provides me with interesting tasks	-0.079	0.362	0.155
My occupation is respected	0.116	0.371	0.292
My colleagues and I do things together after work	0.035	0.077	0.426
I have close relationship with colleagues	0.139	0.180	0.464
Parenting			
Taking care of my children takes up all my strength, revolves whole life	0.561	0.063	0.053
I feel trapped by my parental duties	0.611	0.141	0.119
Can fulfil child's needs very well	0.075	0.604	0.048
If I set parenting goals I can reach them	0.078	0.725	0.047
Can control when I am a good parent or not	0.103	0.654	0.037
There are enough people who would look after my children	0.099	-0.007	0.615
I have enough people I can ask for advice concerning my children	0.054	0.113	0.621

Table 3. Multivariate regression coefficients (OLS and FE) for basic need satisfactions on *life satisfaction*, by gender and work conditions (with control variables^a)

	WOMEN						MEN					
	ALL		MOTHERS		WORKING MOTHERS		ALL		FATHERS		WORKING FATHERS	
	OLS	FE	OLS	FE	OLS	FE	OLS	FE	OLS	FE	OLS	FE
Partnership												
<i>Autonomy</i>	0,080	0,143	0,020	0,078	0,017	0,088	0,008	-0,037	0,006	0,065	0,014	0,062
<i>Competence</i>	0,400 ***	0,090	0,409 ***	0,350	0,379 ***	0,266	0,426 ***	0,478 *	0,415 ***	0,412	0,492 ***	0,622 **
<i>Relatedness</i>	0,203 ***	0,417 **	0,250 ***	0,361 *	0,248 **	0,309	0,202 ***	-0,189	0,256 ***	0,088	0,209 ***	-0,119
Work												
<i>Autonomy</i>	0,077 **	0,157 ***	0,066 *	0,108 *	0,096 **	0,064	0,096 **	0,213 ***	0,084 *	0,242 ***	0,083 *	0,236 ***
<i>Competence</i>	0,187 ***	0,115	0,124 **	0,069	0,161 **	-0,066	0,385 ***	0,318 ***	0,375 ***	0,360 **	0,358 ***	0,341 **
<i>Relatedness</i>	0,034	-0,019	0,011	-0,114	-0,001	-0,135	0,093 *	0,025	0,082	0,008	0,093	0,046
Parenting												
<i>Autonomy</i>	0,141 **	-0,111	0,129 *	-0,130	0,106	0,029	0,069	-0,006	0,073	0,019	0,075	0,018
<i>Competence</i>	0,392 ***	0,560 ***	0,400 ***	0,551 ***	0,374 ***	0,502 **	0,424 ***	0,237	0,427 ***	0,183	0,429 ***	0,226
<i>Relatedness</i>	0,105 **	0,124	0,126 **	0,141	0,217 ***	0,195	0,110 *	0,021	0,098 *	0,006	0,073	-0,134

^a Control variables: age, education (primary, secondary, and tertiary), net monthly equivalent income, occupational status (full-time and part-time workers, self-employed, unemployed, in parental leave, inactivity), number of children in the household, age of the youngest child, health status, residence in the metropolitan areas, partner's age, relative amount of housework and childcare done by the partners, judgment of the equal share of housework and childcare.

Note: * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

Table 4. Multivariate regression coefficients (OLS and FE) for basic need satisfactions on *positive emotions*, by gender and work conditions (with control variables^a)

	WOMEN						MEN					
	ALL		MOTHERS		WORKING MOTHERS		ALL		FATHERS		WORKING FATHERS	
	OLS	FE	OLS	FE	OLS	FE	OLS	FE	OLS	FE	OLS	FE
Partnership												
<i>Autonomy</i>	0,018	0,051	0,001	-0,005	0,000	0,056	0,050 *	0,008	0,050	-0,003	0,055	-0,017
<i>Competence</i>	0,201 ***	0,106	0,208 ***	0,195 *	0,169 ***	0,054	0,152 ***	0,194 *	0,168 ***	0,246 **	0,165 ***	0,179
<i>Relatedness</i>	0,108 ***	0,133 *	0,117 ***	0,158 **	0,126 ***	0,238 **	0,098 ***	0,046	0,106 ***	0,079	0,105 ***	0,215 **
Work												
<i>Autonomy</i>	0,027 *	-0,017	-0,004	-0,036	0,006	-0,037	0,025 *	0,024	0,010	0,036	0,013	0,033
<i>Competence</i>	0,031	-0,018	0,011	-0,021	-0,021	-0,039	0,087 ***	0,056	0,098 ***	0,090 **	0,094 ***	0,102 **
<i>Relatedness</i>	0,014	0,027	0,027	0,038	0,024	0,079 **	0,059 ***	0,031	0,060 ***	0,040	0,064 ***	0,036
Parenting												
<i>Autonomy</i>	0,088 ***	0,028	0,091 ***	0,025	0,060 **	-0,016	0,048 *	-0,001	0,042	0,017	0,059 **	0,030
<i>Competence</i>	0,199 ***	0,189 **	0,198 ***	0,194 **	0,228 ***	0,282 ***	0,133 ***	0,100	0,126 ***	0,109	0,116 ***	0,126 *
<i>Relatedness</i>	0,030 *	0,073	0,036 **	0,067	0,042 *	0,056	0,027	0,018	0,026	0,066	0,018	0,033

^a Control variables: age, education (primary, secondary, and tertiary), net monthly equivalent income, occupational status (full-time and part-time workers, self-employed, unemployed, in parental leave, inactivity), number of children in the household, age of the youngest child, health status, residence in the metropolitan areas, partner's age, relative amount of housework and childcare done by the partners, judgment of the equal share of housework and childcare.

Note: * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

Table 5. Multivariate regression coefficients (OLS and FE) for basic need satisfactions on *negative emotions*, by gender and work conditions (with control variables^a)

	WOMEN						MEN					
	ALL		MOTHERS		WORKING MOTHERS		ALL		FATHERS		WORKING FATHERS	
	OLS	FE	OLS	FE	OLS	FE	OLS	FE	OLS	FE	OLS	FE
Partnership												
<i>Autonomy</i>	-0,022	-0,096	0,004	-0,044	-0,022	-0,096	0,018	-0,035	0,018	-0,069	0,018	-0,035
<i>Competence</i>	-0,135 ***	0,017	-0,132 ***	-0,042	-0,135 ***	0,017	-0,138 ***	-0,087	-0,100 ***	-0,097	-0,138 ***	-0,087
<i>Relatedness</i>	-0,046	-0,032	-0,089 ***	-0,059	-0,046	-0,032	-0,056	-0,018	-0,071 **	-0,100	-0,056	-0,018
Work												
<i>Autonomy</i>	-0,015	0,008	-0,014	0,012	-0,015	0,008	-0,030	-0,070 **	-0,025 *	-0,065 ***	-0,030 *	-0,070 **
<i>Competence</i>	0,046 **	0,007	0,032 *	-0,006	0,046 **	0,007	-0,096 ***	-0,082	-0,066 ***	-0,076 *	-0,096 ***	-0,082
<i>Relatedness</i>	-0,025	-0,026	-0,023	-0,035 *	-0,025	-0,026	-0,053 ***	-0,083 **	-0,038 **	-0,058 **	-0,053 ***	-0,083 **
Parenting												
<i>Autonomy</i>	-0,004	0,033	-0,034	-0,017	-0,004	0,033	-0,037 *	0,005	-0,047 **	-0,016	-0,037 *	0,005
<i>Competence</i>	-0,115 ***	-0,095	-0,100 ***	-0,108 *	-0,115 ***	-0,095	-0,137 ***	-0,097	-0,129 ***	-0,066	-0,137 ***	-0,097
<i>Relatedness</i>	-0,045 **	-0,061	-0,031 *	-0,045	-0,045 **	-0,061	-0,031 *	-0,091	-0,018	-0,110 **	-0,031 *	-0,091

^a Control variables: age, education (primary, secondary, and tertiary), net monthly equivalent income, occupational status (full-time and part-time workers, self-employed, unemployed, in parental leave, inactivity), number of children in the household, age of the youngest child, health status, residence in the metropolitan areas, partner's age, relative amount of housework and childcare done by the partners, judgment of the equal share of housework and childcare.

Note: * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

Appendix

Dataset construction and missing values imputation

Files in Pairfam are separate cross-sections by survey instrument, i.e., for anchor, partner, parents, child, and parenting survey. We selected the files on anchor, partner, and parenting (waves 2-6) and created separate longitudinal panel datasets by appending all available waves, keeping only partnered individuals and anchor-respondent observations in the parenting surveys. This is a balanced panel consisting of 36,366 observations.

After checking for the relevant variables across waves, we implemented mean imputation for the variables of interest that contain missing observations accordingly. This procedure allows us to maximize the use of the variables and the number of observations, although it should be noted that doing so decreases the variability of the variables, leading to underestimated standard deviations and variations.

While imputation introduces measurement error in the explanatory variables, which should generally make it more difficult to observe statistically significant effects, the imputation controls ensure that the results are robust against possible bias arising from data imputation. To have a uniform “tone” among the variables, we have transformed the original questions to be consistently positive (or negative) throughout. The table below shows in full detail the imputation and transformation of the variables we have undertaken. To illustrate, for the domain variable that refers to autonomy, information is only available for waves 1, 2, 3, and 5, and we imputed for wave 4 by taking the mean of waves 3 and 5 (see Table 1A).

Next, we dropped observations with missing information on life satisfaction, occupation status, education, age, and gender, creating an unbalanced panel. To maximize the sample size that we can use, we generated dummy variables to indicate missing observations and converted the corresponding observations to 0's. We then kept only waves 3 and 4. We also generated an indicator variable for whether childbirth occurred between these two waves. After a final “cleaning” by dropping observations with missing information on federal state, we came up with a final sample of 3,021 observations.

Table 1A. Variables with imputed values in wave 3 and 4

Variable Description	Original Variables	Available in waves	Imputed for waves
<i>Relationship Autonomy</i>	Partner finds it all right if I stand up for my own interest	1-3, 5	4
	I can settle my personal matters by myself without conflicts	1-3, 5	4
	I can usually do what I want	1-3, 5	4
<i>Relationship Competence</i>	I can fulfil my partner's needs very well	1-3, 5	4
	I can make big contribution to making our partnership work	1-3, 5	4
	When I plan something in the partnership I'm able to carry it out	1-3, 5	4
<i>Relationship Relatedness</i>	Partner lets me know that he/she understands me	1,3,5	4
	Partner listens/gives chance to express myself	1,3,5	4
	Partner supports me when I have a problem	1,3,5	4
<i>Parenting Autonomy</i>	Taking care of my children takes up all my strength, revolves whole life	2,4,6	3
	I feel trapped by my parental duties	2,4,6	3
<i>Parenting Competence</i>	Can fulfil child's needs very well	2,4,6	3
	If I set parenting goals I can reach them	2,4,6	3
	Can control when I am a good parent or not	2,4,6	3
<i>Parenting Relatedness</i>	There are enough people who would look after my children	3,5	4
	I have enough people I can ask for advice concerning my children	3,5	4

<i>Fairness of division of labour</i>	How fair is the division of labour (housework and paid work) between you and your partner?	1,3,5	4
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Table 2A. Averages of life satisfaction and mental health variables and of the indices for *autonomy*, *competence*, and *relatedness* needs in relationship, work, and parenting, in the sub-samples of men and women, parents and working parents.

	Males	Females	Fathers	Mothers	Working Fathers	Working Mothers
	(n=1430)	(n=1590)	(n=1031)	(n=1223)	(n=985)	(n=807)
<i>Dependent Variables</i>						
Life satisfaction (Range: 0 Not at all -10 Completely)	7.71	7.77	7.63	7.77	7.69	7.88
Positive mental health (Range: 0-5)	3.26***	3.19***	3.24	3.17	3.25	3.22
Negative mental health (Range: 0-5)	1.45***	1.54***	1.45	1.53	1.44	1.48
<i>Basic Psychological Needs (Range: 1 Not at all - 5 Very strongly)</i>						
Relationship: Autonomy	3.42***	3.87***	3.35	3.79	3.35	3.81
Relationship: Competence	3.72	3.74	3.69	3.68	3.68	3.73
Relationship: Relatedness	4.09*	4.04*	4.04	3.96	4.05	3.98
Work: Autonomy	2.49***	2.12***	2.42	2.01	2.52	2.25
Work: Competence	3.56***	2.67***	3.53	2.47	3.68	2.94
Work: Relatedness	3.08***	2.44***	3.04	2.22	3.16	2.57
Parenting: Autonomy	1.47	1.41	2.04	1.84	2.04	1.84
Parenting: Competence	2.71***	3.01***	3.75	3.92	3.76	3.91
Parenting: Relatedness	2.60***	2.84***	3.60	3.70	3.62	3.71

*** gender differences significant at 1%

* gender differences significant at 5%

† gender differences significant at 10%

Table 3A. Sample distribution around main socio-demographic control variables, in the sub-samples of men and women, parents and working parents.

	Males	Females	Fathers	Mothers	Working Fathers	Working Mothers
	(n=1430)	(n=1590)	(n=1031)	(n=1223)	(n=985)	(n=807)
<i>Net monthly income (average, in Euros)</i>	2988	2657	3077	2618	3143	2760
Marital status						
Married	73%	76%	85%	86%	86%	84%
Partnered or cohabiting	27%	24%	15%	14%	14%	16%
Occupation status						
Full-time	79%	27%	79%	14%	83%	21%
Self-employed	10%	4%	10%	4%	10%	7%
Part-time or occupational	6%	29%	5%	32%	5%	48%
Parental leave	1%	13%	2%	16%	2%	24%
Unemployed	3%	3%	3%	3%		
Civil service or homemaker	2%	25%	1%	31%		
Education						
Primary	19%	12%	22%	15%	22%	10%
Secondary	47%	51%	46%	53%	45%	53%
Tertiary	34%	37%	32%	33%	33%	38%
Partner's occupation status						
Full-time	24%	70%	12%	70%	12%	68%
Self-employed	6%	12%	5%	11%	5%	13%
Part-time or occupational	24%	7%	26%	6%	27%	7%
Parental leave	13%	1%	17%	2%	17%	2%
Unemployed	7%	2%	9%	2%	9%	1%
Civil service or homemaker	22%	4%	28%	4%	28%	4%
Missing observations	4%	4%	3%	4%	3%	4%
Birth Cohort						
1970-1973	66%	60%	78%	68%	79%	67%
1980-1983 and 1990-1993	34%	40%	22%	32%	21%	33%
Number of Children						
No children	28%	23%				
1 child	24%	24%	33%	31%	33%	35%
2 children	34%	37%	46%	48%	47%	47%
3 or more children	15%	17%	20%	22%	20%	17%
Age of Youngest Child						
No children	28%	23%				
Less than 3 years old	28%	26%	38%	34%	38%	37%
3-6 years old	19%	20%	26%	26%	26%	26%
6-18 years old	23%	29%	32%	38%	31%	35%
18 years old or older	3%	2%	4%	2%	4%	2%
Health Status in the Past 4 Weeks						
Bad	1%	2%	2%	2%	1%	2%
Not so good	8%	12%	9%	11%	8%	10%
Satisfactory	21%	24%	21%	26%	21%	26%
Good	49%	44%	51%	44%	51%	44%
Very good	20%	18%	18%	17%	18%	18%
Macrostate						
Berlin	2%	3%	3%	3%	3%	4%
Bremen and Hamburg	2%	3%	2%	3%	2%	3%
Baden-Wuerttemberg and Bavaria	29%	29%	27%	29%	28%	27%
Hesse and North Rhine-Westphalia	31%	29%	32%	28%	33%	27%
Other states	36%	37%	36%	38%	35%	40%

Table 4A. Sample distribution around main work and family related control variables, in the sub-samples of men and women, parents and working parents.

	Males	Females	Fathers	Mothers	Working Fathers	Working Mothers
	(n=1430)	(n=1590)	(n=1031)	(n=1223)	(n=985)	(n=807)
<i>(Fairness of) Division of Activities, dummy variables</i>						
<i>Division of Housework</i>						
Mostly my partner	64%	4%	72%	3%	73%	4%
Mostly 50/50	27%	26%	22%	20%	21%	24%
Mostly me	4%	65%	3%	74%	3%	69%
Missing observations	6%	5%	2%	3%	2%	3%
<i>Division of Child Care</i>						
Mostly my partner	44%	2%	61%	2%	62%	3%
Mostly 50/50	23%	26%	31%	33%	30%	38%
Mostly me	2%	47%	3%	61%	2%	56%
Missing observations	32%	26%	5%	4%	5%	3%
<i>Division of Labor between Housework and Paid Work</i>						
I do a bit/much less than my fair share	23%	4%	25%	3%	25%	3%
I do about my fair share	66%	64%	68%	65%	69%	63%
I do a bit/much more than my fair share	4%	26%	3%	28%	3%	29%
Missing observations	7%	6%	4%	4%	4%	5%
<i>Outsourcing of Housework, shopping, finance, child care</i>						
Only done by anchor or partner	98%	96%	98%	96%	98%	96%
Some outsourcing	2%	4%	2%	4%	2%	4%
<i>Frequency of Sexual Intercourses in the Last 3 Months</i>						
Not in the past 3 months	6%	6%	7%	6%	7%	6%
Once or less per month	14%	16%	14%	15%	15%	16%
2-3 times per month	25%	25%	26%	26%	27%	27%
Once a week	25%	22%	25%	21%	24%	22%
2-3 times per week	18%	17%	16%	17%	16%	15%
More than 3 times per week	4%	3%	4%	3%	4%	3%
Daily	1%	1%	1%	1%	1%	1%
Never had sex or Missing observations	7%	11%	7%	12%	7%	10%
<i>Hands-on Child Care by Anchor</i>						
No hands-on child care	76%	44%	66%	27%	68%	29%
Part-time	21%	44%	29%	57%	28%	54%
Full-time	4%	13%	5%	16%	4%	17%

Table 5A. Estimated coefficients of the control variables from the OLS and FE models for life satisfaction, for mothers and fathers

	Fathers		Mothers	
	OLS	FE	OLS	FE
Family Income				
Household family income	0.1900 (0.154)	0.2626* (0.158)	0.3516 ** (0.171)	-0.0038 (0.225)
Missing	1.4668 (1.246)	1.9760 (1.259)	2.7730 ** (1.361)	-0.1281 (1.836)
Marital Status (reference: married)				
Partnered but not married/cohabiting	-0.1961 (0.165)	-0.7687 ** (0.316)	-0.2442 (0.164)	0.0601 (0.537)
Occupation Status (reference: full-time)				
Self-employed	-0.0198 (0.175)	-0.0273 (0.537)	0.0320 (0.246)	0.7640 ** (0.362)
Part-time/Occational/Trainee	0.0325 (0.219)	-0.2025 (0.419)	0.2021 (0.156)	0.6220 * (0.327)
Parental leave	2.1176 *** (0.775)	3.1005 * (1.692)	0.5011 ** (0.227)	0.8763 ** (0.405)
Unemployed	0.8370 (0.782)	1.2045 (1.839)	-0.2367 (0.293)	0.2397 (0.461)
Civil service/Homemaker/Retired	0.4853 (0.668)	0.4758 (1.616)	0.1863 (0.191)	0.5906 (0.386)
Education (Reference: Primary)				
Secondary education	0.0239 (0.149)		-0.2838 ** (0.141)	
Tertiary education	0.0968 (0.152)		-0.1870 (0.157)	
Partner's Occupation Status (Reference: full-time)				
Missing	-0.4596 (0.394)	-2.4723 *** (0.733)	0.0923 (0.375)	-0.2874 (0.453)
Self-employed	-0.0059 (0.226)	-0.1682 (0.409)	0.2898 ** (0.131)	0.6431 ** (0.279)
Part-time/Occational/Trainee	-0.0484 (0.182)	-0.4849 (0.393)	0.1177 (0.185)	0.3421 (0.404)
Parental leave	-0.1584 (0.208)	-0.5966 (0.461)	0.0511 (0.290)	0.2143 (0.443)
Unemployed	-0.1971 (0.227)	-0.4462 (0.501)	-0.2937 (0.280)	-0.4988 (0.544)
Civil service/Homemaker/Retired	-0.1908 (0.208)	-0.6733 (0.523)	0.0807 (0.303)	-0.7828 (0.626)
Cohort (Reference: 1980-1983, 1990-1993)				
1970-1973	-0.2006 (0.150)		0.0321 (0.117)	
Number of Children Alive (Reference: 1 child)				
No child				
2 children alive	0.0111 (0.118)	-0.2844 (0.346)	0.1498 (0.117)	-0.6766 (0.519)
3 or more children alive	0.1261 (0.159)	0.0264 (0.598)	0.1295 (0.152)	-0.8433 (0.632)
Age of Youngest Child (Reference: 18 or above)				

Younger than 3 years old	0.1235 (0.430)	-0.4717 (0.682)	-0.2958 (0.636)	0.4412 (1.048)
3 to 6 years old	0.0580 (0.432)	-0.2225 (0.673)	-0.1513 (0.626)	0.2561 (1.042)
6 to 18 years old	-0.1665 (0.427)	-0.1177 (0.680)	-0.4862 (0.615)	-0.2075 (1.035)
Self-reported Health Status in Past 4 Weeks (Reference: Bad)				
Not so good	1.1820 ** (0.528)	1.2778 (1.091)	1.0533 ** (0.483)	0.1921 (0.355)
Satisfactory	1.6195 *** (0.510)	1.9418 * (1.044)	1.5424 *** (0.499)	0.6482 * (0.368)
Good	1.9901 *** (0.497)	2.0180 * (1.041)	1.7223 *** (0.499)	0.5965 * (0.361)
Very good	2.1347 *** (0.504)	2.2380 ** (1.047)	2.1496 *** (0.508)	0.6606 * (0.374)
Frequency of Sexual Intercourses last 3 months (Reference: 2-3 times/month)				
Never had sex (missing)	0.2045 (0.203)	0.9750 ** (0.468)	-0.1783 (0.145)	-0.4203 (0.310)
Not in the past 3 months	-0.0946 (0.226)	0.3887 (0.304)	-0.4641 ** (0.217)	-0.3889 (0.321)
Once or less per month	-0.0651 (0.133)	-0.1218 (0.200)	-0.3782 *** (0.140)	-0.2700 * (0.144)
Once a week	0.1175 (0.117)	0.0315 (0.204)	0.0976 (0.111)	-0.0110 (0.156)
2-3 times per week	0.1092 (0.143)	0.1968 (0.228)	0.2524 ** (0.124)	-0.0450 (0.173)
More than 3 times per week	0.0747 (0.289)	0.4402 (0.394)	0.0989 (0.246)	-0.0239 (0.332)
Daily	-0.4291 (0.726)	1.2501 ** (0.489)	0.0001 (1.295)	-2.6534 *** (0.853)
Missing (Never had sex)				
Hands-on Childcare (Reference: Full-time by anchor)				
No hands-on childcare	0.0960 (0.301)	0.6405 (0.436)	-0.0989 (0.169)	0.0694 (0.247)
Part-time hands-on childcare	0.0492 (0.296)	0.5976 (0.409)	-0.0821 (0.131)	-0.1457 (0.214)
Missing	-0.1704 (0.187)	0.0352 (0.374)	0.2143 (0.174)	-0.1182 (0.259)
Macrostate (Reference: Berlin)				
Bremen and Hamburg	0.7711 (0.482)	-0.8769 (0.617)	0.7152 * (0.379)	-3.8376 ** (1.754)
Baden-Wuerttemberg and Bavaria	0.8300 ** (0.362)	-0.7595 * (0.450)	0.2185 (0.287)	-4.2927 ** (1.858)
Hesse and North Rhine-Westphalia	0.5909 * (0.358)	-1.5970 *** (0.539)	0.0239 (0.285)	-1.6285 (1.746)
Other states	0.4837 (0.364)	-1.2407 *** (0.418)	0.1249 (0.287)	
Wave (Reference: wave 3)				
Wave 4	-0.9494 (0.614)	-0.5380 (0.574)	-0.4677 (0.363)	- 0.8424 *** (0.284)
Relationship				
Autonomy	0.0060 (0.085)	0.0654 (0.235)	0.0193 (0.086)	0.0776 (0.216)

Autonomy, missing	-0.3476 (0.519)	0.0114 (0.958)		0.2824 (0.503)	0.4380 (1.153)	
Competence	0.4145 *** (0.123)	0.4117 (0.339)		0.4091 *** (0.107)	0.3500 (0.238)	
Competence, missing	1.6653 *** (0.595)	-0.2058 (1.463)		1.3853 *** (0.464)	1.3469 (0.926)	
Relatedness	0.2562 *** (0.089)	0.0881 (0.348)		0.2503 *** (0.080)	0.3610 (0.208)	*
Relatedness, missing	1.6248 *** (0.608)			0.9011 (0.742)		
Work						
Autonomy	0.0844 * (0.049)	0.2418 *** (0.078)		0.0658 (0.042)	0.1076 (0.069)	
Autonomy, missing	-0.6072 (0.916)	-3.8079 * (1.954)		0.1844 (0.439)	1.3147 (0.850)	
Competence	0.3751 *** (0.079)	0.3599 ** (0.153)		0.1240 ** (0.062)	0.0690 (0.108)	
Competence, missing	0.9409 ** (0.424)	3.4100 *** (1.221)		0.1353 (0.312)	-0.3532 (0.714)	
Relatedness	0.0822 (0.058)	0.0079 (0.110)		0.0109 (0.053)	-0.1141 (0.083)	
Relatedness, missing	-0.2691 (0.442)	0.4158 (0.394)		0.2683 (0.347)	-0.7288 (0.520)	
Parenting						
Autonomy	0.0728 (0.070)	0.0193 (0.110)		0.1273 * (0.067)	-0.1300 (0.080)	
Autonomy, missing	-0.5534 (0.678)	-0.1782 (0.757)		0.0823 (0.459)	-1.3069 (0.452)	***
Competence	0.4274 *** (0.084)	0.1832 (0.269)		0.4007 *** (0.080)	0.5508 (0.212)	***
Competence, missing	1.3459 *** (0.436)	0.6950 (1.024)		1.7265 *** (0.383)	3.1461 (1.348)	**
Relatedness	0.0980 * (0.058)	0.0060 (0.179)		0.1249 ** (0.049)	0.1408 (0.140)	
Relatedness, missing	1.0993 ** (0.476)	0.2001 (0.839)		0.1519 (0.543)	0.1330 (0.703)	
Extent of Sharing Duties in Housework (Reference: Split 50/50)						
Missing	-1.6389 (1.091)	-2.3971 *** (0.847)		-0.2622 (0.607)	0.4623 (0.614)	
Mostly partner	-0.0488 (0.126)	-0.1823 (0.187)		0.1038 (0.256)	-0.0802 (0.373)	
Mostly me	-0.2395 (0.292)	-0.7231 (0.493)		-0.0736 (0.122)	-0.0305 (0.202)	
Extent of Sharing Duties in Taking Care of Children (Reference: Split 50/50)						
Missing	-0.1152 (0.384)	0.9075 ** (0.445)		0.2412 (0.656)	0.1363 (0.384)	
Mostly partner	-0.0598 (0.115)	-0.3470 ** (0.171)		0.5819 ** (0.269)	0.8004 (0.434)	*
Mostly me	0.0597 (0.352)	-0.0712 (0.512)		0.0264 (0.103)	-0.1467 (0.155)	
Fairness of Division of Labor (Housework and Paid Work) Between Partners (Reference: I do about my fair share)						
Missing	-0.3377 (0.525)	1.2424 (0.865)		0.3612 (0.307)	0.0216 (0.616)	
I do a bit/much less than my fair share	-0.0687	0.1017		-0.1557	-0.5913	

	(0.107)	(0.258)	(0.241)	(0.477)
I do a bit/much more than my fair share	0.3028 (0.228)	0.1920 (0.536)	0.1230 (0.101)	-0.0507 (0.237)
Outsourcing of housework, shopping, repairs, finance, or childcare (Reference: None)				
Some outsourcing	-0.3332 * (0.200)	-0.6693 (0.515)	0.0419 (0.178)	0.3642 (0.276)
Missing	2.0616 * (1.152)	0.1354 (0.831)	-0.4184 (0.942)	0.1446 (0.742)
Constant	-2.1100 (1.634)	0.9043 (2.886)	-2.0030 (1.732)	4.3649 (2.694)
Observations	1,031	1,031	1,223	1,223
R-squared	0.338	0.247	0.320	0.189
Number of id		602		736

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6A. Estimated coefficients of the control variables from the OLS and FE models for positive mental health, for mothers and fathers

	Fathers		Mothers	
	OLS	FE	OLS	FE
Family Income				
Household family income	0.0002 (0.045)	0.0078 (0.053)	0.2195*** (0.054)	0.0844 (0.094)
Missing	-0.0897 (0.366)	0.0284 (0.443)	1.7067*** (0.438)	0.6912 (0.759)
Marital Status (reference: married)				
Partnered but not married/cohabiting	-0.0274 (0.059)	-0.0035 (0.116)	-0.0335 (0.053)	-0.046 (0.151)
Occupation Status (reference: full-time)				
Self-employed	-0.0184 (0.064)	0.1751 (0.202)	-0.0679 (0.093)	-0.158 (0.148)
Part-time/Occational/Trainee	0.0885 (0.069)	0.0747 (0.147)	0.0333 (0.056)	-0.118 (0.081)
Parental leave	0.4959 ** (0.228)	0.7484 *** (0.272)	0.2068 ** (0.081)	-0.009 (0.158)
Unemployed	0.3035 (0.209)	0.9791 (0.280) ***	0.2139* (0.122)	0.2970 (0.186)
Civil service/Homemaker/Retired	0.1281 (0.125)	0.4527 (0.275)	0.0723 (0.069)	0.0111 (0.194)
Education (Reference: Primary)				
Secondary education	0.0663 (0.049)		-0.0231 (0.055)	
Tertiary education	0.0327 (0.056)		0.0383 (0.062)	
Partner's Occupation Status (Reference: full-time)				
Missing	-0.0688 (0.132)	-0.9302 ** (0.373)	0.1897 ** (0.090)	0.0245 (0.178)
Self-employed	-0.1309 (0.094)	-0.1281 (0.176)	-0.0358 (0.053)	0.0590 (0.145)
Part-time/Occational/Trainee	-0.0995 (0.068)	-0.2691 (0.184)	0.0402 (0.063)	-0.025 (0.183)
Parental leave	-0.1056 (0.077)	-0.2480 (0.189)	-0.0327 (0.116)	0.0374 (0.244)
Unemployed	0.0129 (0.081)	-0.1089 (0.203)	0.0135 (0.089)	-0.024 (0.201)
Civil service/Homemaker/Retired	-0.1226 * (0.074)	-0.2958 (0.213)	-0.0356 (0.078)	-0.056 (0.240)
Cohort (Reference: 1980-1983, 1990-1993)				
1970-1973	0.0315 (0.052)		0.0298 (0.044)	
Gender				
Male				
Number of Children Alive (Reference: 1 child)				
No child				
2 children alive	-0.0028 (0.044)	0.1164 (0.134)	0.0145 (0.041)	0.1307 (0.113)
3 or more children alive	-0.0080	0.0921	-0.0682	0.0017

	(0.058)	(0.188)	(0.050)	(0.169)
Age of Youngest Child (Reference: 18 or above)				
Younger than 3 years old	-0.0121 (0.169)	0.0050 (0.191)	0.0425 (0.185)	0.8915 ** (0.411)
3 to 6 years old	0.0065 (0.167)	0.0802 (0.184)	0.0722 (0.182)	0.8216 ** (0.404)
6 to 18 years old	-0.0621 (0.166)	0.1572 (0.186)	0.0121 (0.177)	0.7072 * (0.389)
Self-reported Health Status in Past 4 Weeks (Reference: Bad)				
Not so good	0.0493 (0.200)	-0.1630 (0.236)	0.2851 * (0.146)	0.2575 (0.166)
Satisfactory	0.2402 (0.189)	0.0094 (0.216)	0.4546 *** (0.142)	0.3083 * (0.161)
Good	0.3788 ** (0.191)	0.0001 (0.216)	0.6056 *** (0.143)	0.3566 ** (0.162)
Very good	0.4967 *** (0.192)	-0.0172 (0.218)	0.7205 *** (0.147)	0.3578 ** (0.174)
Frequency of Sexual Intercourses last 3 months (Reference: 2-3 times/month)				
Never had sex (missing)	0.0536 (0.073)	-0.0609 (0.136)	0.0662 (0.049)	0.1597 * (0.084)
Not in the past 3 months	-0.0035 (0.078)	-0.0232 (0.106)	-0.1895 (0.070)	0.0168 (0.138)
Once or less per month	-0.0303 (0.054)	-0.0251 (0.064)	-0.0469 (0.051)	0.0198 (0.068)
Once a week	0.0570 (0.046)	0.0726 (0.059)	0.0040 (0.040)	0.0956 * (0.055)
2-3 times per week	0.0853 * (0.046)	0.1102 (0.067)	0.0090 (0.044)	0.0610 (0.084)
More than 3 times per week	0.1594 (0.098)	0.1420 (0.126)	-0.0557 (0.101)	-0.172 (0.197)
Daily	0.0677 (0.189)	0.2735 (0.244)	0.0769 (0.292)	-0.294 (0.215)
Missing (Never had sex)				
Hands-on Childcare (Reference: Full-time by anchor)				
No hands-on childcare	0.0939 (0.090)	0.0415 (0.100)	-0.0966 (0.063)	0.0158 (0.083)
Part-time hands-on childcare	0.0864 (0.090)	0.0730 (0.099)	-0.0719 (0.046)	-0.002 (0.064)
Missing	-0.0318 (0.067)	-0.0948 (0.150)	0.2078 *** (0.066)	0.0194 (0.121)
Macrostate (Reference: Berlin)				
Bremen and Hamburg	0.3353 ** (0.146)	-0.0031 (0.165)	0.3051 ** (0.125)	
Baden-Wuerttemberg and Bavaria	0.2325 ** (0.110)	-0.4288 *** (0.086)	0.0999 (0.106)	-0.670 ** (0.317)
Hesse and North Rhine-Westphalia	0.1501 (0.109)	0.2471 ** (0.121)	0.0138 (0.105)	-0.123 (0.141)
Other states	0.2154 * (0.110)		0.0076 (0.105)	
Wave (Reference: wave 3)				
Wave 4	-0.2826 * (0.160)	-0.0431 (0.129)	-0.0749 (0.125)	0.0880 (0.136)
Relationship				

Autonomy	0.0497 (0.033)	-0.0033 (0.084)	0.0006 (0.027)	- (0.078)
Autonomy, missing	0.2272 (0.232)	0.3665 (0.339)	-0.1962 (0.146)	- (0.425)
Competence	0.1680 *** (0.041)	0.2457 ** (0.122)	0.2080 *** (0.037)	0.1954 * (0.106)
Competence, missing	0.3476 (0.221)	0.4871 (0.441)	0.7689 *** (0.172)	0.6680 (0.426)
Relatedness	0.1064 *** (0.032)	0.0790 (0.108)	0.1173 *** (0.029)	0.1580 ** (0.079)
Relatedness, missing	0.6188 ** (0.291)		0.6773 *** (0.233)	
Work				
Autonomy	0.0101 (0.017)	0.0360 (0.025)	-0.0043 (0.016)	- (0.027)
Autonomy, missing	-0.4348 (0.272)	-0.3854 (0.447)	-0.1216 (0.177)	- (0.257)
Competence	0.0980 *** (0.025)	0.0901 ** (0.043)	0.0108 (0.022)	-0.021 (0.044)
Competence, missing	0.4365 ** (0.191)	0.2861 (0.297)	-0.2039 * (0.110)	-0.224 (0.311)
Relatedness	0.0596 *** (0.023)	0.0404 (0.033)	0.0265 (0.019)	0.0384 (0.032)
Relatedness, missing	-0.0017 (0.150)	0.0406 (0.294)	0.2968 ** (0.143)	0.2235 (0.176)
Parenting				
Autonomy	0.0421 (0.026)	0.0166 (0.032)	0.0900 *** (0.024)	0.0254 (0.031)
Autonomy, missing	0.0010 (0.193)	0.1471 (0.183)	0.4149 ** (0.161)	0.3575 * (0.187)
Competence	0.1256 *** (0.034)	0.1092 (0.078)	0.1981 *** (0.030)	0.1936 ** (0.076)
Competence, missing	0.4254 *** (0.160)	0.4762 (0.317)	0.9395 *** (0.144)	1.4665 *** (0.289)
Relatedness	0.0260 (0.020)	0.0663 (0.060)	0.0354 ** (0.018)	0.0665 (0.048)
Relatedness, missing	0.1205 (0.143)	0.2394 (0.250)	0.0099 (0.149)	0.1111 (0.308)
Extent of Sharing Duties in Housework (Reference: Split 50/50)				
Missing	0.0384 (0.191)	-0.0851 (0.213)	-0.0584 (0.188)	-0.099 (0.140)
Mostly partner	0.0475 (0.044)	0.1308 * (0.067)	0.0235 (0.087)	-0.014 (0.089)
Mostly me	-0.0247 (0.113)	-0.1231 (0.141)	-0.0543 (0.042)	-0.076 (0.065)
Extent of Sharing Duties in Taking Care of Children (Reference: Split 50/50)				
Missing	0.0730 (0.135)	0.0454 (0.159)	0.2345 * (0.135)	0.4031 * (0.214)
Mostly partner	0.0057 (0.037)	-0.0567 (0.054)	0.1640 * (0.097)	-0.044 (0.088)
Mostly me	0.0326 (0.126)	0.0971 (0.137)	-0.0036 (0.036)	-0.058 (0.048)
Missing	-0.1691	-0.0368	0.0367	0.0525

	(0.283)	(0.205)	(0.129)	(0.180)
I do a bit/much less than my fair share	0.0189	-0.0553	0.0412	-0.085
	(0.041)	(0.097)	(0.099)	(0.518)
I do a bit/much more than my fair share	-0.0194	0.4861 ***	0.0651 *	0.1123
	(0.114)	(0.121)	(0.039)	(0.093)
Outsourcing of housework, shopping, repairs, finance, or childcare (Reference: None)				
Some outsourcing	-0.0552	0.0011	-0.0460	-0.028
	(0.099)	(0.187)	(0.085)	(0.105)
Missing	-0.2208	0.2254	-0.1681	-0.301
	(0.293)	(0.192)	(0.274)	(0.284)
Constant	0.2439	0.5691	-1.8594 ***	-1.021
	(0.521)	(0.848)	(0.534)	(1.110)
Observations	1,011	1,011	1,206	1,206
R-squared	0.339	0.211	0.405	0.233
Number of id		594		730

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 7A. Estimated coefficients of the control variables from the OLS and FE models for negative mental health, for mothers and fathers

	Fathers		Mothers	
	OLS	FE	OLS	FE
Family Income				
Household family income	-0.0512 (0.032)	-0.0335 (0.041)	-0.1213 *** (0.046)	0.0004 (0.069)
Missing	-0.3444 (0.263)	-0.2381 (0.332)	-0.9284 ** (0.372)	0.0812 (0.550)
Marital Status (reference: married)				
Partnered but not married/cohabiting	0.0710 (0.052)	0.1815 (0.150)	-0.0112 (0.048)	0.1291 (0.086)
Occupation Status (reference: full-time)				
Self-employed	0.0351 (0.058)	-0.1367 (0.110)	0.0866 (0.086)	-0.0699 (0.106)
Part-time/Occational/Trainee	0.0013 (0.066)	0.0049 (0.087)	-0.0459 (0.056)	-0.1415 (0.092)
Parental leave	-0.0794 (0.237)	-0.5166 (0.342)	-0.1168 (0.072)	-0.1868* (0.100)
Unemployed	-0.0873 (0.240)	-0.5985 ** (0.281)	-0.0026 (0.119)	-0.0366 (0.164)
Civil service/Homemaker/Retired	0.1179 (0.210)	-0.5208 (0.536)	0.0160 (0.061)	-0.1156 (0.105)
Education (Reference: Primary)				
Secondary education	-0.0771 * (0.042)		-0.0330 (0.051)	
Tertiary education	-0.0378 (0.046)		-0.0770 (0.056)	
Partner's Occupation Status (Reference: full-time)				
Missing	-0.0563 (0.095)	0.6396 *** (0.171)	-0.0659 (0.112)	0.0443 (0.144)
Self-employed	-0.0058 (0.077)	0.2876 ** (0.113)	0.0253 (0.048)	-0.2433 *** (0.085)
Part-time/Occational/Trainee	-0.0201 (0.057)	0.2574 ** (0.110)	-0.0527 (0.053)	-0.0923 (0.089)
Parental leave	-0.0155 (0.063)	0.3146 *** (0.117)	-0.0358 (0.094)	0.0272 (0.103)
Unemployed	-0.1015 (0.064)	0.1686 (0.131)	-0.0765 (0.095)	-0.1755 (0.134)
Civil service/Homemaker/Retired	0.0540 (0.060)	0.2668 * (0.138)	-0.0109 (0.079)	0.0855 (0.127)
Cohort (Reference: 1980-1983, 1990-1993)				
1970-1973	-0.0440 (0.042)		-0.1209 *** (0.043)	
Number of Children Alive (Reference: 1 child)				
No child				
2 children alive	-0.0448 (0.034)	0.0001 (0.123)	-0.0113 (0.038)	-0.0994 (0.092)
3 or more children alive	0.0252 (0.048)	0.0196 (0.200)	0.0589 (0.054)	0.0200 (0.139)
Age of Youngest Child (Reference: 18 or above)				

Younger than 3 years old	-0.0091 (0.127)	-0.5946 ** (0.237)	0.1153 (0.173)	0.3195 (0.274)
3 to 6 years old	-0.0033 (0.125)	-0.6010 ** (0.234)	0.0557 (0.169)	0.2809 (0.269)
6 to 18 years old	0.0507 (0.120)	-0.6432 *** (0.225)	0.1454 (0.166)	0.4126 (0.268)
Self-reported Health Status in Past 4 Weeks (Reference: Bad)				
Not so good	-0.5996 *** (0.205)	-0.3703 * (0.215)	-0.3896 *** (0.139)	-0.4111 *** (0.124)
Satisfactory	-0.6801 *** (0.202)	-0.5298 ** (0.214)	-0.5174 *** (0.146)	-0.4417 *** (0.120)
Good	-0.8067 *** (0.199)	-0.5132 ** (0.214)	-0.6501 *** (0.145)	-0.5011 *** (0.119)
Very good	-0.8353 *** (0.202)	-0.4902 ** (0.218)	-0.7539 *** (0.147)	-0.4858 *** (0.122)
Frequency of Sexual Intercourses last 3 months (Reference: 2-3 times/month)				
Never had sex (missing)	-0.1116 ** (0.055)	-0.3000 ** (0.133)	-0.0603 (0.044)	-0.0458 (0.067)
Not in the past 3 months	-0.0941 (0.060)	-0.2603 *** (0.095)	0.2379 *** (0.070)	0.0193 (0.082)
Once or less per month	0.0446 (0.043)	0.0300 (0.059)	0.0926 ** (0.044)	0.0305 (0.044)
Once a week	-0.0900 ** (0.037)	-0.0743 (0.048)	0.0249 (0.036)	-0.0123 (0.042)
2-3 times per week	-0.0557 (0.040)	-0.0052 (0.060)	-0.0514 (0.039)	-0.0949 (0.060)
More than 3 times per week	-0.0968 (0.072)	-0.1420 (0.136)	0.0315 (0.086)	0.0422 (0.137)
Daily	0.3453 * (0.195)	-0.4566 ** (0.226)	0.2130 (0.192)	-0.2177 (0.291)
Missing (Never had sex)				
Hands-on Childcare (Reference: Full-time by anchor)				
No hands-on childcare	-0.0162 (0.058)	-0.0600 (0.078)	0.0385 (0.055)	0.0494 (0.061)
Part-time hands-on childcare	0.0050 (0.059)	-0.0218 (0.071)	0.0408 (0.043)	0.0931 ** (0.040)
Missing	0.0183 (0.054)	0.2432 *** (0.092)	-0.0427 (0.063)	0.0959 (0.093)
Macrostate (Reference: Berlin)				
Bremen and Hamburg	-0.0620 (0.129)	-0.5127 *** (0.169)	-0.3056 *** (0.109)	-0.3265 ** (0.135)
Baden-Wuerttemberg and Bavaria	0.0573 (0.106)	-0.0946 (0.124)	-0.0676 (0.090)	0.2756 (0.179)
Hesse and North Rhine-Westphalia	0.0701 (0.107)	0.0402 (0.157)	-0.0070 (0.090)	0.2588 ** (0.117)
Other states	0.0416 (0.105)	-0.2320 ** (0.116)	-0.0682 (0.089)	
Wave (Reference: wave 3)				
Wave 4	0.0897 (0.112)	-0.0893 (0.092)	-0.1941 * (0.105)	-0.3236 *** (0.089)
Relationship				
Autonomy	0.0177 (0.024)	-0.0694 (0.075)	0.0050 (0.026)	-0.0437 (0.058)
Autonomy, missing	0.1327	-0.6640 **	-0.0639	-0.1735

	(0.158)	(0.331)	(0.166)	(0.295)
Competence	-0.0997 ***	-0.0968	-0.1321 ***	-0.0417
	(0.036)	(0.110)	(0.036)	(0.068)
Competence, missing	-0.4178 **	0.2250	-0.4895 ***	0.1313
	(0.171)	(0.392)	(0.173)	(0.283)
Relatedness	-0.0707 **	-0.0995	-0.0887 ***	-0.0594
	(0.036)	(0.077)	(0.029)	(0.051)
Relatedness, missing	-0.3165		-0.3456	
	(0.217)		(0.279)	
Work				
Autonomy	-0.0246 *	-0.0654 ***	-0.0145	0.0123
	(0.014)	(0.023)	(0.014)	(0.019)
Autonomy, missing	0.0073	0.0459	-0.0301	-0.1206
	(0.263)	(0.357)	(0.148)	(0.187)
Competence	-0.0656 ***	-0.0758 *	0.0321 *	-0.0059
	(0.020)	(0.044)	(0.018)	(0.027)
Competence, missing	-0.0956	-0.0207	0.3062 ***	0.3406 **
	(0.137)	(0.231)	(0.101)	(0.171)
Relatedness	-0.0378 **	-0.0577 **	-0.0231	-0.0351 *
	(0.018)	(0.025)	(0.017)	(0.021)
Relatedness, missing	-0.1709 *	-0.1506	-0.2130 *	-0.2288 **
	(0.102)	(0.114)	(0.117)	(0.107)
Parenting				
Autonomy	-0.0466 **	-0.0163	-0.0329	-0.0171
	(0.021)	(0.027)	(0.022)	(0.024)
Autonomy, missing	-0.0949	-0.1980	-0.2964 **	-0.3840 ***
	(0.145)	(0.150)	(0.141)	(0.130)
Competence	-0.1290 ***	-0.0660	-0.1004 ***	-0.1079 *
	(0.028)	(0.070)	(0.025)	(0.055)
Competence, missing	-0.3802 ***	-0.2555	-0.3937 ***	-0.7648
	(0.137)	(0.293)	(0.124)	(0.527)
Relatedness	-0.0184	-0.1099 **	-0.0298 *	-0.0452
	(0.016)	(0.049)	(0.016)	(0.035)
Relatedness, missing	-0.2821 ***	-0.4870 **	0.0116	-0.2970
	(0.101)	(0.207)	(0.131)	(0.255)
Extent of Sharing Duties in Housework (Reference: Split 50/50)				
Missing	0.3848 ***	0.2303	0.0279	0.2432 *
	(0.127)	(0.161)	(0.182)	(0.134)
Mostly partner	-0.0207	-0.0420	0.0596	0.3071 ***
	(0.035)	(0.048)	(0.079)	(0.081)
Mostly me	0.1894 *	0.2421 *	0.0191	0.0672
	(0.109)	(0.132)	(0.040)	(0.045)
Extent of Sharing Duties in Taking Care of Children (Reference: Split 50/50)				
Missing	-0.0883	-0.4445 ***	0.1819	0.2228
	(0.121)	(0.130)	(0.160)	(0.137)
Mostly partner	-0.0216	0.0334	-0.1087	0.0059
	(0.035)	(0.043)	(0.091)	(0.099)
Mostly me	-0.3046 ***	-0.3097 **	-0.0119	0.0113
	(0.113)	(0.153)	(0.031)	(0.033)
Missing	0.2872 **	0.1472	-0.0346	0.0185
	(0.141)	(0.208)	(0.132)	(0.190)
I do a bit/much less than my fair share	0.0030	-0.0350	0.0807	0.0193
	(0.032)	(0.061)	(0.085)	(0.074)
I do a bit/much more than my fair share	0.0597	-0.4319 ***	-0.0691 *	-0.1527 **
	(0.092)	(0.091)	(0.036)	(0.062)

Outsourcing of housework, shopping, repairs, finance, or childcare (Reference: None)

Some outsourcing	-0.0780 (0.069)	-0.0392 (0.128)	-0.0029 (0.075)	0.1242 (0.082)
Missing	-0.4048 ** (0.174)	-0.1550 (0.193)	-0.1324 (0.257)	-0.5407 ** (0.245)
Constant	4.4284 *** (0.420)	5.2853 *** (0.854)	4.8125 *** (0.480)	3.2337 *** (0.795)
Observations	1,015	1,015	1,205	1,205
R-squared	0.327	0.327	0.326	0.224
Number of id		597		730

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1