Time Use and Life Satisfaction within Couples: A Gender Analysis for Belgium

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January 2021

ECARES working paper 2021-01

ECARES
ULB - CP 114/04
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www.ecares.org

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Abstract

This study looks at the time allocations of individuals with a focus on paid and unpaid work, its division within the households, as well as its link with life satisfaction. The analysis is performed for Belgium in 2016 using the MEqIn database, a database containing information on both partners in the household. Time use by men and women appears to be quite different. Men are found to be more active in the paid activities and women in the unpaid ones. The link between time use and life satisfaction appears to be different for each gender as well. As in previous studies, women are found to be happier when working part-time. However, the usual conclusion that they follow traditional gender norm is challenged as it appears that this result remains only when they also undertake the majority of the unpaid work. This supports the idea that women active on the paid labor market suffer from a double burden. We then look at the within household interdependencies in the time allocations and at the link these can have with the subjective well-being of both men and women. Doing so, it appears that men's behavior can be related to the gender-identity hypothesis, and more precisely to its bread-winner version, while women's behavior is closer to a egalitarian vision of the division of work. We further observe that those behaviors are softened by the presence of children.

Keywords : Time use, Unpaid work, Household division of labor, Subjective well-being, Gender, Parenthood

JEL : D13, J22, J16, I31

1 Introduction

The well-being of the individuals has always been central in micro-economic analysis, and the economic literature has discussed a lot the appropriate measure of well-being to use in welfare analysis. For a long time empirical economists have mainly focused on objective measures such

*This paper makes use of the MEqIn dataset, collected by a team of researchers from Université catholique de Louvain, KU Leuven, Université libre de Bruxelles, and University of Antwerp. The collection of the MEqIn data was enabled by the financial support of the Belgian Science Policy Office (BELSPO) through grant BR/121/A5/MEQIN (BRAIN MEqIn).

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as the revenue or consumption of the households. Nonetheless the increased use of well-being indicators for public policies, the Gross National Happiness indicator used by Bhutan is a good example, has led economists to consider other types of measures. One of these new types of measures is called the Subjective Well-Being (SWB). SWB measures are typically measures of the satisfaction of the individual with regards to life, job, health,... and they are usually collected in surveys through questions of the type "Overall and on a scale from 1 to 10, how satisfied are you with your life nowadays?". Although it has been used for a long time by psychologists and occupational health researchers, it is only relatively recently that economists started to consider such 'soft' indicators as relevant for empirical research.

This study will focus on one of the dimensions that could have an impact on the well-being of individuals: their time allocations. More precisely, it will study the impact this dimension and its division within the households can have on the life satisfaction of the individuals.[1] Indeed, work-life balance is an important determinant of the health and well-being of individuals and families (Parkes and Langford, 2008).

Starting from this premise, some studies have looked at the link between time spent at paid work and subjective well-being (SWB). The findings of those studies are mixed with some of them showing that men are more happy when working more and women are more happy when working part-time rather than full-time. Nonetheless, most of those studies discarded an important type of work, the unpaid work as well as the potential within household interdependencies that can affect individuals' time allocations and their link with their SWB. Finally, many of those studies focus solely on women. These omissions are even more detrimental given the gendered approach of those studies.

This paper tries to fill in these gaps and, therefore, contributes to the existing literature in several ways. First of all, it is one of the few papers to consider other forms of work than paid work. A consideration that is seen as crucial in such gender studies as unpaid work is mostly undertaken by women as opposed to paid work. Moreover, to the best our knowledge, this paper is the first one to include caring activities in an explicit way as part of the unpaid work. A type of work that is believed to be important for, at least, two reasons: caring activities represent a large share of the unpaid activities and are mostly undertaken by women; including childcare in the analysis allows to look closer at the effect of parenthood on the work-life balance and its impact on SWB. Surprisingly, parenthood has not drawn much attention in previous studies on this topic. This paper is the first to analyze that dimension by looking at the effect that parenthood can have on the relation between life satisfaction and work activities (paid and unpaid) for men and women separately. Next, as opposed to most of the previous studies, this paper will also allow for potential interdependencies of the time allocations of partners when analyzing their link with SWB. Doing so appears to be crucial to better discriminate between, among others, the theories of Becker (1965) and Akerlof and Kranton (2000). The first one is gender neutral and states that household members specialize in either paid work or unpaid work depending on their relative characteristics, while the

[1] Although the use of SWB measures, such as the life satisfaction, could suffer from the capability criticism first developer by Sen (1979, 1985). This study considers, following Della Giusta et al. (2011), that life satisfaction is an interesting measure as, even within the capabilities framework, well-being is the end outcome researchers are looking for. See the Section "Thinking about happiness and gender" of Della Giusta et al. (2011) for a more thorough discussion of the use subjective well-being measures in gender studies.

second one states that the division of paid work and unpaid work within households is determined by gender-specific utilities. Finally, this paper will underline the importance of analyzing both the case of men and women, as the results will point to a different behavior of both genders.

The analysis will be performed with the help of the MEqIn database, a survey that was conducted in Belgium in 2016 and that led to the publication of the book by Capéau et al. (2020) analyzing the well-being of individuals in Belgium and the different dimensions that compose their well-being. While being one of the few databases in which both partners of the selected households were interviewed and with information on time use, subjective well-being as well as household and individual characteristics, it further contains questions drawn from the Ten-Item Personality Inventory (TIPI) proposed by Gosling et al. (2003), allowing one to construct measures of the big five personality traits. This allows controlling for characteristics that are usually unobserved. Ferrer-i-Carbonell and Frijters (2004) show that controlling for such characteristics is crucial in studies using measures of the Subjective Well-Being (SWB) as outcome variables. They claim that this can be done by introducing individual fixed effects or random effects when panel data is available, or by introducing measures of the personality traits. Boyce (2010) further show that the personality traits measures can account for a large part of the unobservable heterogeneity across individuals usually dealt with by random or fixed effects.

We will document that the time spent at paid and unpaid work by men and women is still very different, with men being more active in the paid activities and women in the unpaid ones. Looking at the effect of those time allocations of men and women on their well-being separately, it first appears that men are the least happy when being unemployed, while women are happier when working part-time. However, allowing for potential within household interdependencies in time allocations leads to somewhat different results as it appears that the negative effect found for women working full-time holds only when they perform the majority of the unpaid work, backing up the double-burden hypothesis put forward in the public health literature. In addition, looking at the link between time spent at paid work by both partners and their subjective well-being, reveals that men's behavior can be related to the bread-winner version of the gender-identity hypothesis. While women's behavior is closer to an egalitarian hypothesis. Those behaviors appear to be attenuated for both men and women when they have children.

2 Literature review

This work focuses on the link between time allocations of individuals of a different gender, the division of time use within households and the link they can have with individuals' well-being. Stricto sensu, it is therefore concerned with previous research that analyzed the link between time use and well-being. However, looking at the distribution of time use within the households and differentiating by gender also urges one to review what has been done in that literature. This section will be divided in two subsections: one on previous work and findings on time allocations and gender, and another one on the link between time allocations and subjective well-being.

2.1 On gender and time allocations

Recent decades have been the theater of changes in the composition of weekly schedules of individuals overall but as well within couples. In particular, there have been changes in time spent on both paid and unpaid work. The first one comprises among others the activities performed on the labor market and has been the focus of most of the economic studies. The unpaid work comprises, among others, the care activities (caring for the children but also for other household's members or even for other individuals) as well as the domestic work and is raising more and more interest lately.[2] Overall, the allocation of time between the two has raised new interest as we have seen changes linked to economic development (e.g. the introduction of the dishwasher that reduced the time needed to spend on domestic chores) but as well changes in the allocation of tasks within households.

On the one hand, although there has been an increase in women labor force participation (Sayer, 2005) it is still the case that men spend more time in paid work than women even conditional on working full-time (Álvarez and Miles-Touya, 2016; Eurostat, 2008). On the other hand, it has been well documented that the time spent by women on housework has decreased over the years although they still account for most of it (Bianchi et al., 2000; Sayer, 2005). While for childcare, it appears that both parents dedicate more and more time to it (Bianchi, 2000; Sandberg and Hofferth, 2001, 2005; Sayer et al., 2004), although mothers still undertake the bulk of it (Craig, 2006). Finally, some studies have found a positive link between parents' level of education or income, and the time they (both) spend taking care of their children (Kimmel and Connelly, 2007; Guryan et al., 2008),[3] while the link is negative for the time spent on domestic chores. The first result is somehow surprising as those types of parents should have a higher opportunity cost of time spent on childcare.

All those changes have drawn new interest over the way individuals allocate their time with a special focus on the gender differences in time use within households. This debate dates back to Becker (1965) who stated that household members specialize in either paid work or unpaid work depending on their relative characteristics. In Becker's view time allocation within couples should be asymmetric and gender neutral. We should then observe (full) specialization of members of households simply depending on their productivity. In the rest of the paper, the time use patterns following this idea will be referred to as complying with the *specialization hypothesis*.[4]

Akerlof and Kranton (2000) on their side, develop a model in which household members' preferences are influenced by social customs. According to them, the distribution of paid and unpaid work within households is determined by gender-specific utilities. Within their framework, we would therefore expect to observe men spending more time on paid work and women on unpaid

[2] Paid and unpaid work have been called differently before. For instance, sociologists often refer to care work when considering childcare activities and other types of care activities (England, 2005), while within the feminist movement, they have been called as well productive and reproductive work (Vogel, 2013). Note that the reproductive labor has been central in the International Wages for Housework Campaign in the 70's (Cox and Federici, 1976). It was decided to keep using the naming unpaid work throughout this study as care work comprises as well individuals who are getting paid for caring, e.g. nurses.

[3] Chiappori et al. (2017) further show that, as couples are more likely to be composed of individuals with the same level of education, the discrepancies in child development between children with higher-educated and less-educated parents is magnified.

[4] Note that productivity of the individuals has often been proxied by their wages in the economic literature. In this study, since we do not have any good measure of the individuals' wages, we will sometimes simply look at their levels of education.

work.[5] However, the surge of feminist movements in the last decades might have changed mentalities (although to a limited extend) so that Akerlof and Kranton's view might lead to more and more equal sharing of work (paid or unpaid). The former sharing of work has been referred to as complying with the *gender-identity hypothesis*. This includes the bread-winner model as within the traditional gender-identity hypothesis the man is supposed to be earning most of the household income. While for the latter sharing of work, the rest of the paper will define it as complying with an *egalitarian hypothesis*.

Finally, some public health studies analyzing the differences in rate of sickness absence among men and women showed that the higher rate found for women could be explained by the *double burden hypothesis* (see Nilsen et al., 2017, for a systematic review). This hypothesis suggests that women active on the labor market suffer from a double burden as they still undertake most of the unpaid activities.

Part of the rest of the paper will try to see with which of those hypotheses individuals comply by looking at their time allocations depending on their characteristics and by assessing the link between those allocations within couples and the well-being of each partner.

2.2 On the link between time allocations and well-being

There have been more and more studies analyzing the different aspects of individuals' life satisfaction in the last three decades (See Ferrer-i-Carbonell, 2013, for a survey). Among others, researchers have tried to analyze the impact of income on life satisfaction (Clark et al., 2008, for a survey) or the impact of important life events such as unemployment (e.g. Kassenboehmer and Haisken-DeNew, 2009). More recently, economists have tried to look at the link between time spent on paid labor and life satisfaction. Most of those studies focus on the case of women working part-time.

The effect of part-time working is not straightforward and could depend on different things. Booth and Van Ours (2008), for instance, put forward the fact that part-time jobs can have two distinct effects on subjective well-being. They can provide some flexibility in the work-life balance while maintaining one's social connections. However, those types of jobs can be intrinsically unsatisfying (not much future advancement and possible low prestige).

These possible mixed effects have been confirmed by empirical evidence. Gash et al. (2010), for instance, analyzing the difference in subjective well-being of women working part-time or full-time in the UK and Germany, conclude that neither option – full-time or part-time – is always superior under any circumstances. Booth and Van Ours (2009) for their part, look at the impact of part-time work on both men and women within Australian couples. They further allow for potential interdependencies within couples by including the work status of the partner and his/her number of hours worked. Their results are in line with the conservative gender identity hypothesis as women are found to be more satisfied when working part-time and their partner works full time. While men are more satisfied when working full-time and are indifferent of their partner's hours worked.

Other studies have focused on the link between hours mismatch (i.e. the gap between preferred

[5] The same idea is used by Lundberg and Pollak (1993) to develop a model of distribution within the marriage. In their *separate spheres* bargaining model, the threat point is a noncooperative equilibrium within marriage (as opposed to divorce threat bargaining models such as the ones developed by Manser and Brown (1980) and McElroy and Horney (1981)). The noncooperative equilibrium is then one in which traditional gender roles are reflected.

and actual worked hours) and SWB. Wooden et al. (2009) analyzing the case of Australia between 2001 and 2005, find no effect if the number of hours worked are consistent with preferences but a negative effect for overemployment and underemployment. The former being larger. The same is found by Angrave and Charlwood (2015) for the UK. While Wunder and Heineck (2013) analyzing the case of Germany and Kugler et al. (2014) studying Australia and Germany find that it is underemployment that is more detrimental for well-being. All those studies further observe that underemployment and overemployment are respectively associated with short hours and long hours.

The studies cited here usually focus on women labor supply with the aim of discriminating between the theories of Becker and Akerlof and Kranton. Overall, evidence is mixed and depends often on the countries under study. Two main limitations can nonetheless be pointed out in those studies. First of all, most of them did not try to take into account the time use of the partner, with the notable exception of Booth and Van Ours (2009) for hours worked and Wunder and Heineck (2013) for hours mismatch, while those interdependencies are clearly part of the theoretical models that they try to back up. Secondly, those studies focus solely on the time spent at paid work therefore disregarding all other forms of time use and especially unpaid work.

Della Giusta et al. (2011) address this last issue as they consider other types of work than paid work. Starting from the observation that the average life satisfaction is the same for men and women in the UK between 1996 and 2007, but that its distribution is different, they investigate whether the factors that influence the life satisfaction of men and women are different. They find that hours of paid work increase both women and men life satisfaction while housework hours have a significant positive impact only for retired. Childcare (that they proxy by including the number of children of certain age) and caring for adults are found to be negative for women only while insignificant for men. Although those results are interesting, they do not take into account the time use of the partner and are therefore hard to reconcile with any of the theoretical models exposed above.

Álvarez and Miles-Touya (2016) are the only one to investigate whether the distribution within the household of other time allocation decisions, such as domestic work might interact with the effect of paid work on SWB. They find that, when controlling for housework either by matching or conditional on women doing most of it, women are more satisfied with their life when working part-time. This is in line with the double burden hypothesis as women working full time still end up doing most of the chores. They further find that the type of hours mismatch that penalizes working women's subjective well-being the most is actually doing less housework than desired, a finding that is in line with the gender-identity hypothesis. However, they only look at the division of time spent on housework within the couples. This precludes them from observing potential behaviors in line with the egalitarian hypothesis and make them consider women doing all the housework when they do 5 hours in the same way as women doing 20 hours. Furthermore, their analysis focuses solely on women while, given that the gender question is of matter, it would be of interest to perform the same analysis for men. This study will fill in this gap by looking at the within households' interdependencies in time allocations and the link they have with both men's and women's life satisfaction.

Finally, none of the previous studies include the time spent at unpaid childcare in a direct way. Indeed, while Della Giusta et al. (2011) try to include the childcare dimension by using the

number of young children as a proxy, no study appears to use a direct measure of the time spent at childcare. However, this is a crucial dimension as childcare appears to be an important item of time use mainly taken care of by women, and a dimension that is worth studying separately from the other unpaid work activities since, as stated above, studies have reported a positive link between parental time and level of education and wages (as opposed to domestic chores). Having a direct measure of the time spent on childcare by each partner, this study will be one of the first to evaluate the impact of this work activity on the individuals' well-being. Finally, the impact of having children on the link between the distribution of time spent at paid work within households and the individuals' well-being will be analyzed as well.

3 The MEqIn data

3.1 Database and sample selection

This analysis will be performed with the use of the so-called MEqIn data. A database that is representative for Belgium in 2016 and that led to the publication of the book by Capéau et al. (2020) analyzing the well-being of individuals in Belgium and the different dimensions that compose their well-being. This database is especially suited for the type of analysis performed in this study for several reasons. First of all, it is one of the few databases containing information on time use as well as measures of subjective well-being. It further contains information on many dimensions of the individuals' life as well as the household they compose: consumption, income, health, composition of the household,... Moreover, it has the advantage of having a lot of information on the time use of individuals within which information on the time spent on caring activities, a dimension that could not be properly included in previous studies while being an important part of unpaid work and hence of total work.

One of the main advantages of this database for this type of study is the fact that both partners in the households were interviewed so that it contains accurate information on both of them. This will allow us to see how time spent at work (paid and unpaid) is divided between partners within a household and to see how this division of work impacts the SWB of individuals. While some studies looked at the division of paid work between the partners (Booth and Van Ours, 2009; Wunder and Heineck, 2013), Álvarez and Miles-Touya (2016) are the only one to look at the division of unpaid work but they do so only by considering whether women do all the housework or not. The availability of the exact time spent per week at each activity by each of the two partners will allow to be even more precise in this study.

Finally, the MEqIn questionnaire contained questions drawn from the Ten-Item Personality Inventory (TIPI) proposed by Gosling et al. (2003), thus allowing to construct measures of the big five personality traits. The psychology literature has defined and relied extensively on a framework in which individual personality can be modeled by five factors. Those factors are neuroticism, extraversion, openness, agreeableness, and conscientiousness (Sharpe and Desai, 2001). Neuroticism will be referred to by its opposite, emotional stability, in this study. The availability of those measures will allow controlling for usually unobservable individual characteristics that are often seen as crucial in explaining the heterogeneity across individuals in studies using perception-based

variables such as the SWB. Indeed, Ferrer-i-Carbonell and Frijters (2004) show that taking into account this heterogeneity is crucial. While they do so by introducing fixed effects or random effect, this will not be possible in the case of this study since the MEqIn database is only cross-sectional. However Boyce (2010) shows, as hinted by Ferrer-i-Carbonell and Frijters (2004), that controlling for the personality traits accounts for a large part of the heterogeneity across individuals.

The sample used in this study is made of heterosexual households composed of two partners and in which both partners were interviewed. Given the aim of the study it was decided to exclude households composed of grand-parents living with their grand-children, households with retired partners, and households with adult children. This leaves us with 392 households with partners of both genders in each of them.

3.2 Descriptive statistics of the sample considered

Table 1 presents the average characteristics of men and women composing the sample as well as their differences. The characteristics presented in the table are the ones that will be used as controls in the regression analyses presented in Section 5. The sample considered in Table 1 excludes the households in which one of the partners has a missing observation for one of the variables in the table. The same will be done in the benchmark regression analysis to make sure that we compare men and women of the same couples.

It appears from Table 1 that men in the sample are slightly older than women, that women are, on average, more educated, while no statistical differences in terms of health is found. Concerning the working status, it appears that there is a significantly larger share of men employed than women while the share of women voluntarily nonemployed (either for taking care of the family of for another reason) is significantly larger than for men. Finally, most of the differences appear to be found for the personality traits of the women and men, as it appears that women in the sample consider themselves, on average, more extroverted, agreeable, and conscientious but less emotionally stable. Those last results are in line with what has been found in the psychology literature (see Weisberg et al., 2011, for instance). To account for those differences in characteristics, and following what was done in previous studies (Álvarez and Miles-Touya, 2016; Booth and Van Ours, 2008; Della Giusta et al., 2011), the regression analysis will include the variables presented here as controls.

4 Descriptive statistics of time allocations and SWB

This section will first put a focus on the time allocations of the individuals as well as their level of satisfaction with life. It will do so by first looking at women and men separately. This will allow for investigating if there are some systematic differences. Then, taking advantage of the partnered nature of the data, the time allocations within couples will be analyzed as well as whether these allocations change depending on the couples' characteristics. This will already help in trying to see which of the hypotheses exposed in Section 2.1 are backed up by the data.

Table 1: Average household and individual characteristics and the difference between gender

	Variable	Male (1)	Female (2)	Difference (3)	Household (4)
	Age of respondent	41.97	39.68	-2.292***	
		[0.58]	[0.59]	[0.828]	
Education level	Low	0.2	0.16	-0.047	
		[0.02]	[0.02]	[0.031]	
	Middle	0.4	0.36	-0.041	
		[0.03]	[0.03]	[0.039]	
	High	0.39	0.48	0.087**	
		[0.03]	[0.03]	[0.040]	
Health	Good	0.38	0.39	0.009	
		[0.03]	[0.03]	[0.040]	
	Better	0.5	0.47	-0.035	
		[0.03]	[0.03]	[0.040]	
	Worse	0.11	0.14	0.027	
		[0.02]	[0.02]	[0.027]	
Working status	Employed	0.9	0.74	-0.164***	
		[0.02]	[0.03]	[0.030]	
	Unemployed	0.05	0.06	0.011	
		[0.01]	[0.02]	[0.020]	
	Disabled or sick	0.04	0.06	0.028	
		[0.01]	[0.01]	[0.017]	
	Voluntarily nonemployed	0.01	0.04	0.029**	
		[0.01]	[0.01]	[0.012]	
	Voluntarily nonemployed: Family care	0	0.1	0.095***	
		[0.00]	[0.02]	[0.017]	
Big 5 personality traits	Extraversion	4.31	4.58	0.271**	
		[0.08]	[0.08]	[0.114]	
	Agreeableness	5.21	5.37	0.162*	
		[0.06]	[0.06]	[0.084]	
	Conscientiousness	5.36	5.61	0.252***	
		[0.07]	[0.07]	[0.096]	
	Emotional stability	5.3	4.55	-0.749***	
		[0.07]	[0.08]	[0.106]	
	Openness	5.09	5.07	-0.019	
		[0.07]	[0.07]	[0.103]	
Households' characteristics	Living in a large city				0.22
					[0.02]
	Income				3818.37
					[113.85]
	Number of children				1.12
					[0.07]
N		350	350	700	700

Note: * p<0.10, ** p<0.05, *** p<0.01; Standard errors are in parenthesis; This table presents the average characteristics of men, column (1), and women, column (2), in couples as well as their difference, column (3). Column (4) displays the average characteristics of the households; The sample excludes all households in which one of the partners has a missing observation for one of the variables; The same exercise was performed without excluding those observations and the results are overall similar (results available upon request).

4.1 Time allocations of men and women

Table 2 gives the average hours spent per week by men and women on the different work activities (paid and unpaid) as well as the difference of these averages. The first three columns consider all the individuals in our sample, the middle three, only the individuals who declare being currently in paid employment, and the last three only the individuals declaring not being currently in paid employment.

Table 2: Average hours spent per week by men and women on different activities and their differences

	Unconditional			In paid employment			Not in paid employment		
Variable	Male	Female	Diff	Male	Female	Diff	Male	Female	Diff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paid work and commuting	42.9	28.22	-14.672***	47.65	39.1	-8.557***			
	[1.00]	[1.08]	[1.475]	[0.73]	[0.72]	[1.026]			
Housekeeping	7.34	17.48	10.138***	7.27	15.05	7.772***	7.91	23.78	15.871***
	[0.37]	[0.63]	[0.732]	[0.35]	[0.61]	[0.709]	[1.91]	[1.38]	[2.348]
Taking care of children	6.09	9.62	3.522***	6.16	10.09	3.926***	5.47	8.39	2.915
	[0.48]	[0.67]	[0.825]	[0.50]	[0.77]	[0.913]	[1.73]	[1.37]	[2.196]
Informal care of other	4.31	5.3	0.992*	4.09	4.3	0.205	6.25	7.9	1.648
than children	[0.37]	[0.39]	[0.539]	[0.38]	[0.39]	[0.539]	[1.51]	[0.93]	[1.771]
Total work	60.6	60.61	-0.02	65.18	68.53	3.347**	19.63	40.06	20.434***
	[1.19]	[1.26]	[1.729]	[0.97]	[1.19]	[1.534]	[3.37]	[2.25]	[4.038]
Leisure	19.5	18.08	-1.371	19.03	16.31	-2.722**	23.24	22.68	-0.565
	[0.82]	[0.80]	[1.145]	[0.77]	[0.81]	[1.119]	[4.43]	[1.89]	[4.799]
Time left: rest, sleep	76.2	75.16	-1.014	72.26	70.01	-2.249	111.44	88.53	-22.912***
and other	[1.31]	[1.29]	[1.839]	[1.12]	[1.21]	[1.645]	[5.65]	[3.01]	[6.375]
N	392	392	784	353	287	640	39	105	144

Note: * p<0.10, ** p<0.05, *** p<0.01; Standard errors are in brackets; The table shows the average time spent per week for each of the variables for men and women and the difference of those averages; The middle three columns considers only the individuals declaring to be in paid employment; The last three columns consider only the individuals declaring to not be in paid employment; The variable "Informal care of other than children" contains the time spent on helping household members other than children and on informal care of non-household members; The variable "Total work" is the sum of the four previous variables.

The first six columns of the table confirm what has been found in previous studies and was summarized in Section 2.1. It appears that, on the one hand, men spend significantly more time in paid work than women and that this is the case even conditional on being in paid employment. This difference is quite substantial as it appears that men spend on average more than 14 hours more per week on paid work and that the difference remains at 8.5 hours per week if we remove the individuals not in paid employment. On the other hand, women are found to be more active, on average, in some of the unpaid activities. This is again true even conditional on being in paid employment. More precisely, they appear to spend 10 hours more per week than their partner doing domestic chores (almost 8 hours conditional on being in paid employment) and almost 4 hours more on childcare. Overall, while it appears that men spend more time in paid employment than women, this difference is compensated by the fact that women spend more time on domestic chores and taking care of the children. The difference is even more than compensated when we consider only individuals in paid employment as women are found to work 3.35 hours more per week than men and to have 2.72 hours less dedicated to leisure. This finding is in line with the double burden hypothesis as working women are found to still undertake more unpaid activities.

The analysis of the last three columns of Table 2 considering only the individuals not in paid employment is interesting as well, as we first see that there are more than twice more women not

in paid employment than men. Table A.1, in Appendix A, gives a better idea of the labor market status of the partners considered in the study. It appears that, while most of the couples are composed of two individuals active in paid employment (69.4%), there is still almost one fourth of the couples that are fully specialized (i.e. couples in which only one member is active in the paid market)[6] and that for most of those households (and one fifth of the sample) it is the man who is active in paid employment. We saw as well in Table 1, that among the nonemployed women, more than the half is voluntarily so, either for taking care of their family or for other reasons (while only 10% of the unemployed men are voluntarily so). While this is suggestive of a certain degree of specialization among the couples, it could as well be due to conservative gender norms that lead women take care of the domestic affairs and men to define themselves by bringing bread on the table. This difference between men and women not in paid employment could explain the differences found in the last three columns of Table 2. Indeed, it appears that nonemployed women are working much more than nonemployed men (with the difference coming mainly from domestic chores) and that the latter consequently have much more "time left". This last variable is constructed as the amount of time left in a week when all the previous time use questions have been answered. However, there is no information on the time spent looking for a job in the database, which could bias those results as most of the nonemployed men are involuntarily unemployed and hence probably actively looking for a job.[7]

Table 3 reports the average time spent on different work activities (paid and unpaid) by men and women and differencing on whether they have children or not. The differences are then displayed both between the two genders conditional on having children or not, and within each gender between the individuals with children and the ones without children. For instance, within column (1) that is concerned with the time spent on paid work and commuting, the first cell reports the average for men without children, the second cell the average for men who have children, and the third cell the difference between those two categories of men. While the first cell of column (3) reports the difference between the average time spent at paid work by men and women without children.

We observe quite some variation in the different time use activities. If we look at the bottom right part of Table 3 (i.e. the one considering with Total work), we see that the individuals with children spend on average much more time on work activities (paid and unpaid) than the individuals without children. The difference is quite substantial as they are found to spend between 14 and 20 hours more per week on work activities. The rest of the table teaches us that most of this difference is, not surprisingly, due to the increased time spent taking care of the children. However, it also appears from the table that both men and women with children spend on average more than 4 hours more per week in paid work. This difference could reflect a more important need for income in families with children.

Finally, looking at the gender differences, the same patterns as in Table 2 come out. Women

[6] Note that this is somehow an abuse of language as we don't know whether the individuals chose not to be in paid employment. Table 1 gave already some information on that matter.

[7] The time spent looking for a job is a variable unfortunately often missing in time use databases. This variable could be crucial in studies such as this one as, without it, unemployed individuals are seen as having a lot of time left (seen as positive for SWB) while in fact they are looking for jobs (a stressful activity). Another activity seldom recorded in time use database is time spent volunteering. This activity could be interesting as well as for studies such as this one as it could be seen as a highly self-rewarding unpaid work activity.

Table 3: Average time spent at work activities for men and women with and without children and their differences

Variable	Paid work and commuting			Housekeeping			
	Male (1)	Female (2)	Difference (3)	Male (4)	Female (5)	Difference (6)	N
No children	40.46	25.64	-14.815***	7.36	17.7	10.344***	169
	[1.65]	[1.67]	[2.350]	[0.62]	[0.98]	[1.161]	
Children	44.85	30.29	-14.556***	7.32	17.29	9.973***	223
	[1.21]	[1.40]	[1.854]	[0.45]	[0.82]	[0.936]	
Difference	4.389**	4.647**		-0.04	-0.406		392
	[2.047]	[2.183]		[0.763]	[1.281]		
Variable	**Childcare**			**Total work**			
	Male (7)	Female (8)	Difference (9)	Male (10)	Female (11)	Difference (12)	N
No children				52.49	49.63	-2.862	169
				[1.71]	[1.68]	[2.397]	
Children	11	17.36	6.360***	67.19	69.46	2.27	223
	[0.67]	[0.86]	[1.089]	[1.47]	[1.55]	[2.139]	
Difference	11.005***	17.365***		14.702***	19.834***		392
	[0.669]	[0.860]		[2.259]	[2.284]		

Note: * p<0.10, ** p<0.05, *** p<0.01; Standard errors are in brackets; The table shows the average time spent per week for each of the variables for men and women, with and without children and the difference of those averages; The rows entitled "Difference" display the differences within each gender between individuals with and without children while the differences displayed in the columns (3), (6), (9), and (12) are the differences between men and women conditional on having children (or not); The variable "Total work" is the sum of the paid and unpaid work activities.

are found to spend more than 14 hours less on paid work activities than their partner whether they have children or not. They are found to spend 10 hours more than their partner on domestic chores no matter what their parenthood status is, and 6 hours more taking care of their children than their partner when they have children. In terms of total work, no significant difference is found between men and women, although women appear to work more in couples with children (while the opposite is true for couples without children). This is probably linked to the fact that they take on most of the childcaring activities.

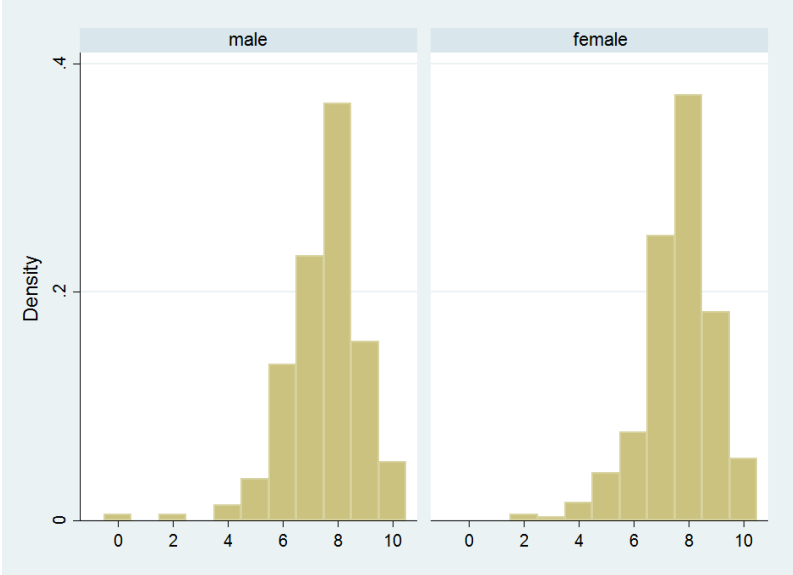
4.2 Life satisfaction of men and women

As explained above, this study will focus on a measure of subjective well-being that is often called life satisfaction. This metric was collected by asking the interviewed individuals the following type of questions: Overall and on a scale from 0 to 10, how satisfied are you with your life nowadays?

Figure 1 plots the distribution of the answers to this question separately for men and women. It also indicates the mean value for each gender as well as the results from a Pearson Chi-squared test to see if the distributions are different for men and women. First of all, we see that most of the life satisfaction scores are above 5 with the mode being at 8 for both men and women. Moreover, when comparing both distributions, they appear to be quite similar. An observation that is confirmed by the Chi-squared test. We see as well that the means are quite similar although women have a slightly higher mean but this difference is not significant.

We then turn to the distributions of life satisfaction scores for men and women conditional on their employment status. Figure A.1, in Appendix A, shows those distributions as well as

Figure 1: Distribution of Life satisfaction of men and women



Mean		Pearson chi squared test	
Men	Women		
7.536	7.663	test-statistic	11.477
(0.074)	(0.067)	P-value	0.244

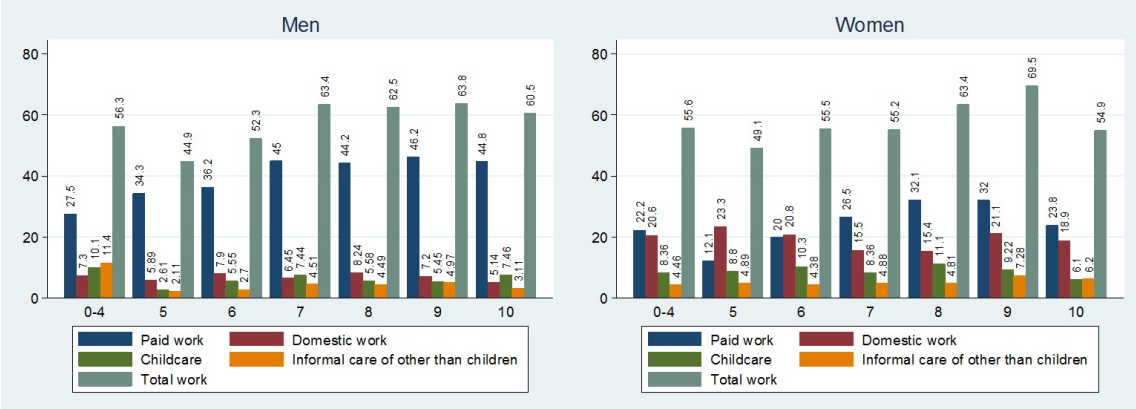
Note: This figure shows the distribution of the answers to the life satisfaction question: "Overall and on a scale from 0 to 10, how satisfied are you with your life nowadays?" This separately for men and women. A Chi squared test was then performed to see if the distributions are different. The means for each gender, the test statistic, as well as the p-value are reported in the table under the figure.

the means for each gender and the results from the Pearson Chi-squared test. It appears that individuals who are not in paid employment are, on average, less happy than individuals who are, an effect that appears to be larger for men. The distribution of the life satisfaction scores appears to be more flat as well, as we see more scores under 7. Once again, this effect appears to be stronger for men. The distributions of life satisfaction scores of men and women indeed appear to be less similar when they are not in paid employment. This observation is more or less confirmed as well by the Chi-squared test of the difference of the distributions of both gender since the p-value is much lower than in the other cases.

To have a first idea of the potential link between time allocations and SWB, the mean time allocated per week to each work activities by men and women with different life satisfaction scores is simply plotted. Given the few observations with a life satisfaction score under 5 it was decided to pool together the scores from 0 to 4.

Figure 2 therefore plots the average time spent per week by men and women with different satisfaction levels in: paid work, domestic work, childcare, informal care of other than children, and total work (i.e. the sum of the four previous activities). It already gives us an idea of the possible link between time allocation and life satisfaction. For instance, it seems that, less happy men are spending less time in paid work on average. A similar relation can be seen for women although it appears that the average time spent in paid work by the least happy women is higher than the one for women with scores of 5 and 6 and that women with a life satisfaction score of

Figure 2: Time spent in work activities (paid and unpaid) for different life satisfaction scores



Note: This figure shows the mean time spent in the different work activities for men and women with different life satisfaction scores. The scores from 0 to 4 were pooled together given the few observations with those scores.

10 work less on average. The relation is less clear for hours spent in unpaid work. Indeed, the averages seem to be quite stable across life satisfaction scores for men, although the most unhappy men are found to be the ones spending more time in unpaid work activities, while there seems to be more variation for women, especially for house work. More precisely, it appears that women on the two sides of the distribution are spending an important amount of time on housework on average.

While the results presented here gives us a first idea of the fact that there might be a link between time allocation and subjective well-being, it is very imprecise since the life satisfaction score might depend on many other variables that have already been put forward in the literature as explained in Section 2.2. To control for those potential confounding factors, regression analyses will be performed in Section 5 where variables that have been proven to have link with the life satisfaction will be added as controls.

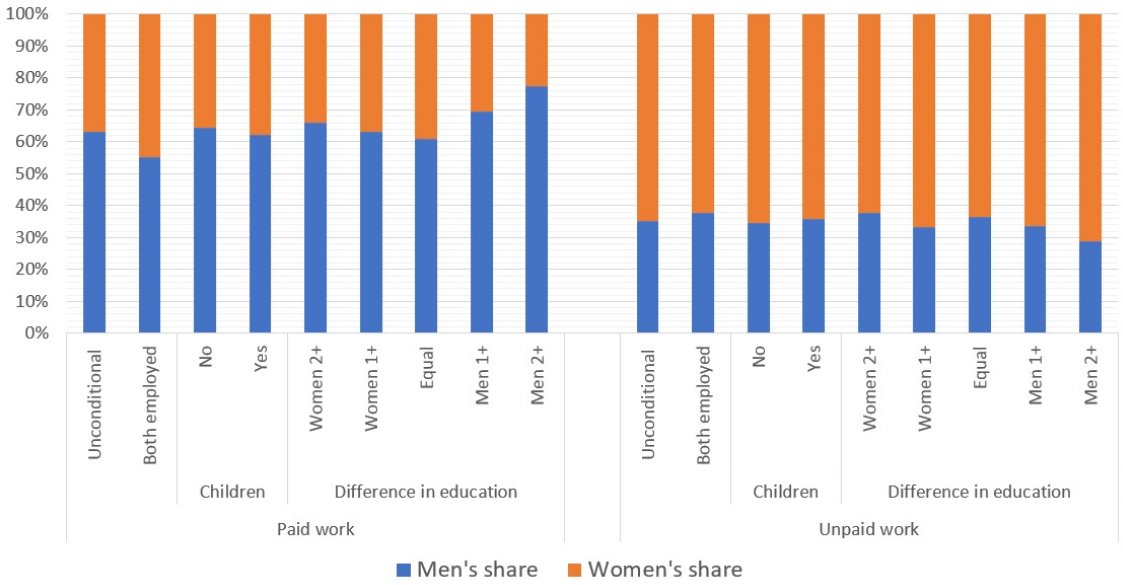
Finally, while the systematic differences between gender exposed in this section are interesting they do not allow one to say much about the hypotheses exposed in Section 2.1. The next section will already go in that direction as the division of the work activities within the households will be analyzed as well as how those divisions change for different types of households.

4.3 Looking inside the couples - the division of the activities

Taking advantage of the partnered nature of the data, this section analyses the division of the work activities between men and women within the couples. This will be done as well for different characteristics of the partners.

Figure 3 displays the average shares of paid and unpaid work activities performed by each partner within their couple. The shares were constructed by summing up the time spent in each activity by the two partners and then dividing the time spent by each partner by this total. The left-hand side of the figure considers the time spent at paid work, and the right-hand side, the time spent at unpaid work. Within each of those 9 bars, the first one considers the whole sample, the

Figure 3: Shares of work activities (paid and unpaid) performed by the men/women in the couples



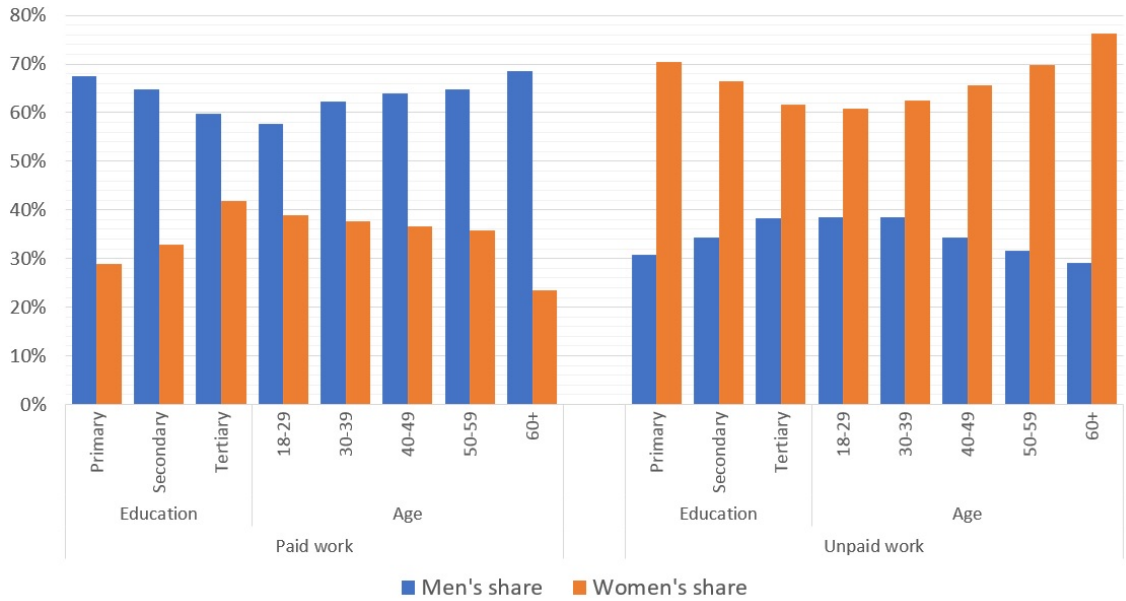
Note: This figure shows the average shares of work activities (paid and unpaid) performed by the men and women within their couple; The shares were constructed by summing up the time spent in each activity by the two partners and then dividing the time spent by each partner by this total; The left part of the figure considers the time spent at paid work, and the right part the time spent at unpaid work; The difference in education category is based on the difference between the partners' level of education, the level of education considered are: primary, secondary, and tertiary.

second one only households in which both partners declare to be in paid employment. Then, the sample is divided depending on the parenthood status of the partners and on their difference in education.

When we look at the first two bars of the left and right part of the figure, we observe the same patterns as before as men are found to spend more time than their partner in paid work activities, even conditional on both being active in paid employment, and women are found to spend more time in unpaid activities so that the difference is (more than) compensated if we consider total work (Results available upon request). The bars differentiating for the presence of children, are overall quite similar. It therefore appears that, within our sample, couples with and without children have, on average, the same division of work activities with the man spending more time in paid work and the women more time in unpaid work, so that the total amount of work is overall evenly distributed. The bars considering the couples according to the difference in the level of education of the partners are quite interesting as it appears that when the man is more educated than his partner, his share of paid work increases while this is not the case when the women is more educated than her partner. In fact the most even distribution is found when both partners have the same level of education (although the man still undertake 60% of the paid work). This seems to go against Becker's specialization hypothesis as the more educated women could be considered as more productive and should therefore spend more time in paid work than their partners. Overall, this is more in line with the conservative gender-identity hypothesis (and even a bread-winner version of it). As far as unpaid work is concerned, the women appear to always perform more than 60% of it, and this difference is even more marked when their partner

is more educated than they are, with women performing up to 70% of the unpaid work when they have a primary degree and their partner a tertiary one.

Figure 4: Shares of work activities (paid and unpaid) performed by the men/women in the couples according to their level of education and age



Note: This figure shows the average shares of work activities (paid and unpaid) performed by the men and women within their couple according to their age and level of education; The shares were constructed by summing up the time spent in each activity by the two partners and then dividing the time spent by each partner by this total; The left part of the figure considers the time spent at paid work, and the right part the time spent at unpaid work.

To deepen the analysis of the shares of work activities performed by the men and women within the households, Figure 4 reports the shares of paid and unpaid work performed by men and women within their couple depending on their age and level of education. As before, a first striking observation from Figure 4, and similar to what was found before, is the fact that no matter their levels of education or age, the men in the sample always perform more than half of the paid work and less than half of the unpaid work. Looking at the level of education, it appears that the less educated the individuals, the less equal the division of paid and unpaid work (with men doing most of the paid work and women most of the unpaid work). This, again, goes against the specialization hypothesis. It could further show that more educated individuals tend to seek a more equal division of the paid and unpaid work and would hence behave according to the egalitarian hypothesis. However, one still has to be careful with such a statement as more educated individuals are likely to earn a larger wage, which could allow them to work less in the paid sector or outsource the unpaid work. As far as the age of the individuals is concerned, a clear relation also comes out of the figure. It appears that the older the individuals, the less equal the division of paid and unpaid work.

5 Regression analysis

In this section, the link between the time allocations of the individuals and their subjective well-being will be analyzed with the help of regressions. Some questions arise when performing this type of regression analyses. A first one is the choice of the control variables to be included in the analysis. It was decided to include control variables that have been proven to have an impact on subjective well-being in the literature, as well as variables that were included in previous studies on the link between time allocations and life satisfaction. The controls included in this study can be seen as being part of two categories: the household's controls, and the individual's characteristics. The first one includes the logarithm of the household's income, the number of children in the household, as well as whether the household lives in a large city. The second one is composed of the age of the individual, his/her marital status, level of education, health, and whether his/her partner is employed. The choice of those control variables relies on previous research such as Della Giusta et al. (2011), Álvarez and Miles-Touya (2016) or Booth and Van Ours (2009).

Performing a regression with the life satisfaction as a dependent variable also urges one to think about whether this variable should be seen as cardinal or ordinal. That is, whether the difference between a score of 3 or 4 for an individual should be seen as the same as the difference between 9 and 10 for another individual. Ferrer-i-Carbonell and Frijters (2004) explore this question by reviewing what has been done in different branches of research. They show that this question has been treated differently. On the one hand, psychologists and sociologists, when using measures of subjective well-being such as the life satisfaction scores, tend to consider it as cardinal and comparable across individuals and therefore run OLS regressions. On the other hand, economists prefer to see it as an ordinal variable and therefore mainly use ordered latent response models. In their paper, Ferrer-i-Carbonell and Frijters show that there are only small differences in the results when assuming cardinality or ordinality.

They further show that what seems to matter is to account for unobservables. They say that this can be done by allowing for individual fixed-effects or by controlling for time-invariant personality traits. Indeed, when thinking about individual heterogeneity that could influence their well-being, researchers often claim explicitly that it mainly comes from personality traits. Boyce (2010) even shows that when including a measure of the personality traits in the regressions, it accounts for a large part of the unobservable heterogeneity across individuals. In this study, given that the data is only cross-sectional, individual fixed effects cannot be accounted for. Nonetheless, the MEqIn database has the advantage of containing measures of the big 5 personality traits, therefore allowing to control for usually unobserved characteristics. Having those measure further allows analyzing more in detail what traits are linked to the life satisfaction of individuals.

The analyses presented in this section will be divided in two main parts. The first one will follow and replicate the results found in previous studies (e.g. Booth and Van Ours, 2009; Della Giusta et al., 2011; Álvarez and Miles-Touya, 2016) and extend it for the unpaid work activities. The life satisfaction scores of men and women will therefore be regressed on the time allocation variables and the controls for men and women separately. The second part will analyze the potential impact on the individuals' SWB of the possible time allocations interactions that might occur within couples, and the division of the work activities. Considering those interdependencies will prove crucial

in determining which of the hypotheses exposed in Section 2.1 (specialization, gender-identity, double-burden) is backed up by our data.

5.1 Setting the stage: regressions for men and women separately

Table 4: Results from the regressions (OLS and Ologit) with time variables as continuous for men and women separately

		Women					Men				
		OLS				Ologit	OLS				Ologit
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Working status (OC: Voluntarily nonemployed)	Unemployed	-0.175	-0.021	-0.018	-0.068	-0.355	-0.427	-0.788	-1.170	-1.380*	-1.933
		(0.715)	(0.965)	(0.973)	(0.899)	(0.625)	(0.609)	(0.319)	(0.132)	(0.070)	(0.105)
	Employed	0.209	0.044	-0.189	-0.196	-0.410	-1.106	-0.719	-1.392	-1.990	-1.926
		(0.740)	(0.943)	(0.785)	(0.779)	(0.713)	(0.382)	(0.561)	(0.317)	(0.176)	(0.377)
	Disabled or sick	0.369	0.506	0.434	0.465	0.485	-0.432	0.120	-0.272	-0.512	-0.131
		(0.519)	(0.373)	(0.505)	(0.467)	(0.666)	(0.632)	(0.903)	(0.785)	(0.605)	(0.916)
	Family care	0.803*	0.808*	0.779	0.756	0.729					
		(0.070)	(0.076)	(0.129)	(0.135)	(0.319)					
Paid work	Hours per week/10	0.370	0.421*	0.541**	0.569**	0.880*	0.579	0.234	0.325	0.475	0.337
		(0.140)	(0.071)	(0.032)	(0.040)	(0.059)	(0.151)	(0.566)	(0.497)	(0.354)	(0.663)
	(Hours per week/10)^2	-0.041	-0.055*	-0.075**	-0.079**	-0.123**	-0.048	-0.015	-0.026	-0.040	-0.029
		(0.218)	(0.076)	(0.032)	(0.034)	(0.047)	(0.214)	(0.701)	(0.571)	(0.408)	(0.713)
Housework	Hours per week	0.003	-0.001	-0.000	-0.002	0.005	0.004	0.006	0.002	-0.002	-0.009
		(0.657)	(0.946)	(0.962)	(0.808)	(0.721)	(0.742)	(0.569)	(0.879)	(0.858)	(0.602)
Childcare	Hours per week	-0.002	-0.005	-0.005	-0.005	-0.003	-0.007	-0.010	-0.018*	-0.020**	-0.030**
		(0.704)	(0.373)	(0.451)	(0.465)	(0.745)	(0.443)	(0.291)	(0.085)	(0.046)	(0.022)
Adult care	Hours per week	0.021**	0.014	0.013	0.014	0.028	-0.008	-0.006	0.000	0.002	0.030**
		(0.027)	(0.188)	(0.269)	(0.224)	(0.128)	(0.607)	(0.651)	(0.995)	(0.893)	(0.031)
Added Controls											
	Personal charateristics	NO	YES	YES	YES	YES	NO	YES	YES	YES	YES
	Household characteristics	NO	NO	YES	YES	YES	NO	NO	YES	YES	YES
	Personality traits	NO	NO	NO	YES	YES	NO	NO	NO	YES	YES
	N	392	379	351	350	350	392	382	354	350	350
	R-squared	0.086	0.183	0.173	0.198		0.062	0.182	0.215	0.266	
	Pseudo R-squared					0.066					0.094

Notes: * p<0.10, ** p<0.05, *** p<0.01; p-values are in parentheses; This table presents the results of the regressions for which the time variables were taken as continuous; OC stands for Omitted Category; The columns (5) and (10) report results of the ordered logit regressions, while the other columns report results from OLS regressions; Columns (4),(5),(9) and (10) excluded all individuals in households in which one of the partners has missing values for the variables included; Personal characteristics are: the age of the individual, his/her marital status, education, health, and whether his/her partner is employed; Household characteristics are: the logarithm of the household's income, the number of children in the household as well as whether the household lives in a large city; Personality traits are: extraversion, agreeableness, conscientiousness, emotional stability, openness.

Table 4 presents the results for men and women separately, when the time spent in work activities is introduced in a continuous way. It first appears from the table that, when comparing OLS and Ologit regressions (i.e. when considering SWB to be a cardinal or an ordinal variable respectively), the results are similar, with the exception of the effect of taking care of household members other than children and/or of non-household members, which appears to have a significant effect for men, only when the ordered logit regression is performed. These effects will nonetheless be similar for both OLS and Ologit when the variable is introduced as categorical. This is in line with what was found by Ferrer-i-Carbonell and Frijters (2004) and Della Giusta et al. (2011). Therefore, the rest of the paper will focus on the results obtained by OLS regressions.

The first four rows of the table then show the link between the labor market status and the SWB. It first appears that, as far as labor market status are concerned, men are less happy when they are unemployed than when they are voluntarily nonemployed (and the effect seems quite large). This is not the case for women. Women are found to be happier when taking care of their family but this effects disappears when personality traits are introduced as controls.

Turning to the variable of interest of this study, we can observe a positive but decreasing link between time spent at paid work and life satisfaction that is significant for women but not for men (and even less so once we introduce the controls). Housework surprisingly appears to have no effect on men's or women's life satisfaction while childcare is found to have a negative and significant effect on men's SWB. The results appear to be overall stable when controls are included. More precisely, the effect found for paid work appears to become significant (lower p-value) for women when controls are included while the p-value increases for men when controls are included. While those results are already interesting (and in line with previous studies for paid work), the non-linear analysis exposed hereunder will give us more insights about how those effects occur.

Table 5 displays the results from the regressions in which the time variables are introduced as categorical variables. Once again, we find a (large) negative effect of being unemployed for men. Turning to the variable measuring the time spent in paid work, we find a result that is also in line with previous studies, namely that women are happier when working part-time (i.e. less than 40 hours) rather than when working full-time. As in the continuous case, no effect is found for the time spent in paid work for men. The time spent doing domestic chores does not appear to have a significant effect on men's or women's life satisfaction, although it is always negative for women and positive for men when they spend only a few hours at it. Concerning childcare, the variable new to this study, men are found to be negatively impacted especially when they dedicate a lot of time to it. Since the number of children is controlled for, and since women undertake, on average, most of the childcaring activities, this results could be linked to the presence of children with special needs who end up 'forcing' their fathers to spend a lot of time taking care of them. However, this is only a first result of the effect of childcare on men and more research is needed on this matter. Finally, the time spent on helping household members other than children and non-household members is found to have a positive effect for both men and women. For men, it is found to be significantly positive when they spend between 7 and 14 hours per week but not for the other categories, a result that could explain the non-significance of the effect in the linear case.

Turning to the control variables, the coefficients obtained can be found in Table A.2, in Appendix A. No significant effect is found for age although most of the coefficients are positive, going in the direction of the usual U-shaped effect on happiness as was put forward, for instance, by Clark and Oswald (2006). Married individuals are found to be happier than the cohabiting ones. There is no clear effect of education for women, while more educated men are found to be more happy. Health appears to have, as expected, a significant impact on life satisfaction as individuals with a better health are found to be happier and the ones with a worse health less happy. No effect of income is found for women, while we observe a positive effect for men with a p-value of 16.6%. Although non-significant, the number of children appears to be positively correlated with life satisfaction for men in couples while it is not for women in couples. This could be linked to the fact that women take responsibilities for most of the childcare related activities, so that having more children is actually more costly for them. This is in line with evidence put forward by Doepke and Kindermann (2019) who find that low fertility countries are those where women are more likely to oppose having another child as they understand that they will bear most of the burden coming with the additional children. Turning to the personality traits, emotional stability is found to have a positive effect for women and men, and extraversion and agreeableness are found

Table 5: Results from the regressions (OLS and Ologit) with time variables as categorical for men and women separately

		Women		Men	
		OLS	Ologit	OLS	Ologit
		(1)	(2)	(3)	(4)
Working status (OC: Voluntarily nonemployed)	Unemployed	-0.113	-0.404	-1.309*	-2.044*
		(0.837)	(0.579)	(0.070)	(0.072)
	Disabled or sick	0.494	0.517	-0.406	-0.159
		(0.458)	(0.658)	(0.683)	(0.902)
	Family care	0.638	0.567		
		(0.225)	(0.452)		
Paid work in categories (OC: not working)	Less than 20 hours per week	0.743	1.015	-0.965	-0.955
		(0.201)	(0.279)	(0.233)	(0.492)
	20-40 hours per week	0.876*	1.251**	-0.545	-0.803
		(0.051)	(0.039)	(0.375)	(0.444)
	40+ hours per week	0.587	0.920	-0.666	-0.922
		(0.213)	(0.146)	(0.281)	(0.376)
Housework in categories (OC:<3.5 hours per week)	3.5-10 hours per week	-0.411	-0.410	0.115	0.151
		(0.178)	(0.372)	(0.498)	(0.582)
	10-20 hours per week	-0.186	-0.078	-0.275	-0.466
		(0.532)	(0.864)	(0.259)	(0.166)
	20+ hours per week	-0.180	0.148	-0.080	-0.202
		(0.588)	(0.784)	(0.819)	(0.689)
Childcare in categories (OC: no care)	0-10 hours per week	0.025	0.065	-0.407*	-0.734*
		(0.935)	(0.899)	(0.097)	(0.065)
	10-20 hours per week	-0.193	-0.228	-0.151	-0.515
		(0.461)	(0.589)	(0.588)	(0.285)
	20+ hours per week	-0.010	0.186	-0.940**	-1.289***
		(0.973)	(0.676)	(0.014)	(0.009)
Adult care in categories (OC: no care)	0-7 hours per week	0.236	0.513*	0.004	0.027
		(0.158)	(0.078)	(0.981)	(0.920)
	7-14 hours per week	0.253	0.435	0.452**	0.743**
		(0.214)	(0.195)	(0.024)	(0.028)
	14+ hours per week	0.498*	1.058**	-0.217	0.685
		(0.068)	(0.021)	(0.688)	(0.200)
	N	350	350	350	350
	R-squared	0.202		0.283	
	Pseudo R-squared		0.070		0.098

Notes: * p<0.10, ** p<0.05, *** p<0.01; p-values are in parentheses; This table presents the results of the regressions for which the time variables were taken as categorical; OC stands for Omitted Category; The columns (2) and (4) report results of the ordered logit regressions, while the other columns report results from OLS regressions; Individuals in households in which one of the partners has missing values for the variables included were excluded for this exercise; All the regressions performed include personal characteristics (age,marital status, education, health, partner employed), household characteristics (income, number of children, living in a large city), and personality traits (extraversion, agreeableness, conscientiousness, emotional stability, openness) as controls; The employed working status is not included anymore to avoid perfect collinearity with the categories of the paid work variable.

to have a positive effect for men.

Finally, Appendix B contains some of the robustness checks that were performed. More precisely, it considers the interest of adding job related measures as controls and the impact that controlling for such variables has on the results presented above. Furthermore, and since leisure is central in the standard neoclassical theory of labor supply, it considers the impact that leisure and time left can have on individuals' SWB. It appears that the results are overall quite robust to the inclusion of job related measures. While no effect of leisure or time left on life satisfaction is found.

Overall, the analyses performed in this section looked at the effect of time allocations of women and men separately without taking into account possible within households' interactions. Concerning paid work, as in Booth and Van Ours (2008), the results seem to point towards an effect that is more pronounced on the extensive margin for men, as we observe a large negative effect when they are unemployed and no effect of the time spent at paid work. For women, the effect found is in line with what Booth and Van Ours (2009), and Álvarez and Miles-Touya (2016) found. Namely we observe a positive but decreasing effect of time spent at paid work and that women are most happy when working part-time. Regarding the time allocation variables new to this study, we find no effect of the time spent doing domestic chores, while childcaring appears to have a negative effect on men especially when they dedicate a lot of time to it. Taking care household members other than children and non-household members is found to have positive effect for both genders. Finally, no effect is found for leisure or the time left.

While those results already give a first idea of the differences between genders in the effect of their time allocations on their SWB, they did not take into account the potential interdependencies of men and women in their time allocations and the impact those collective choices can have on each individual's life satisfaction. The next section will try to introduce some of those interdependencies. Doing so will allow to better differentiate between the hypotheses exposed in Section 2.1 (specialization, gender-identity, double-burden) and to try to see which is potentially backed up by our data.

5.2 Looking within the couples: regressions with partners' interactions

Two ways of allowing for the interactions in time allocations between partners are considered. The first one looks at how partners divide the work activities between themselves. To do so, three categories for each activity are created: the partner does the majority of the work, the individual does the majority of the work, there is equal sharing of the work.[8] This method is similar to what was done by Álvarez and Miles-Touya (2016). Although it is interesting, it can be seen as well as a case in which individuals only care about their relative position in the household. More precisely within this analysis, women doing 5 hours of housework per week when their partner only does 2 would be grouped together with women doing 25 hours of housework per week when their partner only does 5. The second way of allowing for interactions will therefore focus on absolute time spent in each activity. In this case, the life satisfaction of, say, women will be regressed on quadratic

[8]Since hours spent in each activity per week can be given in a quite precise way, it was decided to consider as equal sharing every households in which partners do between 45 and 55% of the total time spent on the activity considered.

forms of both their time spent at paid work and the time spent at paid work by their husband, as well as an interaction term of the two. This study is, to the best of our knowledge, the first one to introduce such an interaction term.

Is it all relative? The effect of the division of work activities within households

Table 6 reports the results for the case in which the division of work within the household is analyzed. It first reports the effect of the division of work on SWB for each activity separately and then allowing for interactions in the division of different activities. This is in the spirit of what was done by Álvarez and Miles-Touya (2016). The idea here is to see, for instance, if women doing most of the paid work are less happy because they do as well most of the housework. The first four columns of Table 6 therefore show the results of the specifications in which no interaction terms were included. In columns (1) and (2) all unpaid work activities were grouped together, while in columns (3) and (4) the effect of their division is analyzed separately. The last two columns show the results when an interaction between paid work and unpaid was included. Table 6 is as well composed of two parts, the upper part which shows the coefficients obtained for the regressions and the lower part which reports the marginal effects of the interactions between the divisions of paid and unpaid work.

Looking at the first two columns it appears that women are less happy when doing the majority of the paid work. This result could be related to the (somewhat puzzling) finding that women are more happy when working part-time exposed in Section 5.1, and could lead one to think that those women behave according to the gender-identity hypothesis. However, the results from column (3) actually urges us to nuance this conclusion. Indeed, when the interaction between the division of paid and unpaid work is accounted for, we see that it is only women who are doing both the majority of the paid and unpaid work who are significantly less happy. Differentiating for the unpaid activities, the same result is found when the interaction between paid work and housework is considered. When the division of the different unpaid work activities is analyzed, without any interactions, it appears that while women enjoy doing most of the informal care of other than children, no other significant effect emerges, although a negative coefficient associated to a p-value of 0.2 is found for women who do the majority of childcare.

Overall, the analysis based on the first two columns could lead one to consider that women in the sample behave according to the gender-identity hypothesis. However, the introduction of interaction terms urges one to nuance this conclusion as it appears that it is actually the fact of combining both the majority of paid and unpaid work that negatively impacts women's SWB. This is therefore supportive of the double burden hypothesis as working women still have to take care of most of the unpaid work and end up doing double shifts.

Turning to the results for men, a negative effect is found for both unequal division of paid work but the coefficient is larger and associated with a lower p-value when their partner does the majority of the paid work, while for unpaid work both coefficients are positive but the lowest p-value is found in the case in which their partner does the majority of the unpaid work. Analyzing the different unpaid work activities separately, it appears that doing most of the childcaring affects significantly and negatively men's life satisfaction. Finally, the introduction of the interaction between paid and unpaid work reveals that men are indeed found less happy when their partner

Table 6: Regressions with the division of work activities within couples

		Women			Men		
		(1)	(2)	(3)	(4)	(5)	(6)
Division of paid work	Partner does the majority (1)	-0.035	-0.033	0.017	-0.561	-0.540	-1.224**
		(0.821)	(0.830)	(0.954)	(0.108)	(0.151)	(0.013)
	Individual does the majority (2)	-0.600**	-0.604***	-0.604	-0.254	-0.225	-0.122
		(0.013)	(0.010)	(0.246)	(0.143)	(0.174)	(0.752)
Division of unpaid work	Partner does the majority (3)	0.172		-0.036	0.270		0.155
		(0.409)		(0.905)	(0.171)		(0.577)
	Individual does the majority (4)	0.170		0.255	0.249		0.711**
		(0.283)		(0.205)	(0.371)		(0.032)
Division of housework	Partner does the majority		-0.042			-0.043	
			(0.836)			(0.856)	
	Individual does the majority		0.099			0.103	
			(0.548)			(0.707)	
Division of childcare	Partner does the majority		0.111			-0.256	
			(0.573)			(0.189)	
	Individual does the majority		-0.221			-0.641**	
			(0.208)			(0.032)	
Division of adult care	Partner does the majority		0.269			0.166	
			(0.145)			(0.359)	
	Individual does the majority		0.317*			0.120	
			(0.069)			(0.554)	
Interactions	(1)#(3)			0.477			1.757***
				(0.317)			(0.004)
	(1)#(4)			-0.151			-0.452
				(0.673)			(0.542)
	(2)#(3)			0.263			-0.095
				(0.674)			(0.824)
	(2)#(4)			-0.081			-0.141
				(0.894)			(0.769)
Marginal effect of the interactions of division of paid and unpaid work							
Partner does the majority of paid work	Equal time in unpaid work			0.017			-1.224**
				(0.954)			(0.013)
	Partner does majority of unpaid work			0.494			0.533
				(0.182)			(0.142)
	Individual does majority of unpaid work			-0.134			-1.676***
				(0.500)			(0.007)
Individual does the majority of paid work	Equal time in unpaid work			-0.604			-0.122
				(0.246)			(0.752)
	Partner does majority of unpaid work			-0.342			-0.217
				(0.354)			(0.290)
	Individual does majority of unpaid work			-0.685*			-0.263
				(0.072)			(0.447)
	N	327	327	327	327	327	327
	R-squared	0.201	0.217	0.205	0.272	0.285	0.320

Note: * p<0.10, ** p<0.05, *** p<0.01; P-values are in parenthesis; All controls were included in the regressions presented in each of the 6 columns; Individuals in households in which one of the partners has missing values for the variables included were excluded for this exercise; Households with both partners inactive in paid work were excluded for this exercise; The bottom part of the table presents the marginal effects of the interaction between paid work and unpaid work; The omitted category for the marginal effects is the category for which both partners do an equal amount of paid work; The marginal effects were computed only for the last 2 columns.

does the majority of the paid work while they do most of the unpaid work. Those results are in line with a bread-winner version of the gender-identity hypothesis.

Or is it absolute? The interaction of time spent in paid work by both partners

Having considered who's doing the majority of the work activities within the couples, we now turn to the analysis in which the way we allow for interactions is considering the absolute time spent in each activity. As explained above, in this case the life satisfaction of men and women will be regressed (separately) on quadratic forms of both theirs and their partner's time spent at work activities (paid and unpaid) as well as an interaction term of the time spent by each partner. Since those types of results can be hard to analyze, it was decided to compute the predicted values of life satisfaction scores for different hours spent at paid work by the two partners. Unless expressed explicitly, all other variables included in the regressions were set at the mean. As often in the happiness literature, the idea here is not really to be able to say things such as "if women work one hour more it increases their SWB by x points". Instead, we will be mostly interested in the dynamics of SWB when we change the time allocations.

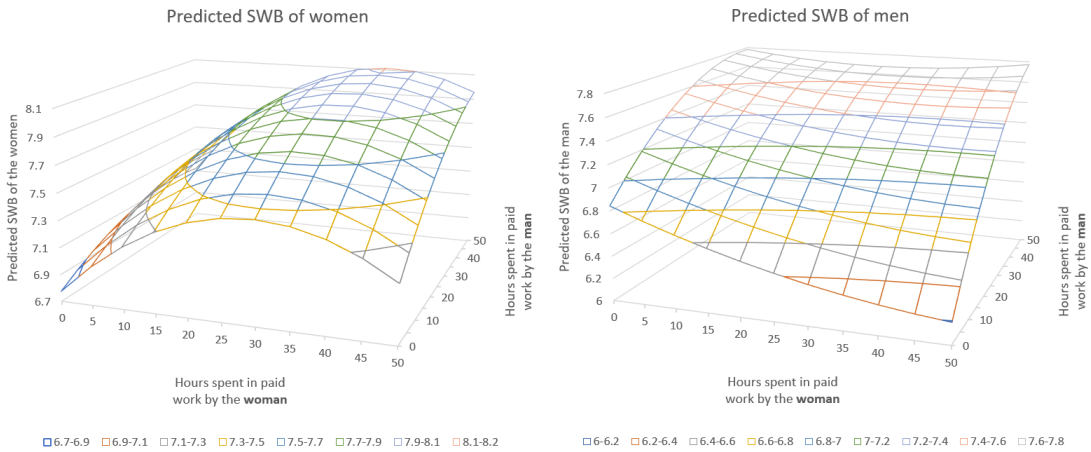
Figure 5 shows those predictions for women and men separately. The results from the regressions on which those predictions are based can be found in Table A.3 for panel (a) and Table A.4 for panel (b), both in Appendix A. One can immediately see here that the dynamics are not the same for both genders. It appears from panel (a) that, overall, men are more happy when they work more no matter what amount of time their partner is spending in paid work, and that, they are less happy if their partner works more hours. Although not significant, the link between the time spent at paid work by their partner and their own SWB is found to be negative for men. While for women, as in the separate case presented in Section 5.1, it appears that they are happier when they work more, although in a decreasing fashion. It further appears that they are as well happier when their husband works more (although the slope is smaller), so that the optimum for women seems to be when both them and their partner work around 40 hours a week.

It is interesting as well to analyze those figures along two diagonals that we will call the total work diagonal and the inequality diagonal. The first one is the one going from (0,0) to (50,50), while the second one goes from (0,50) to (50,0) (i.e. from a state in which the wife does not work and the husband works full-time to a state in which it is the opposite). Looking at those diagonals, it appears that, while both men and women seem to be happier when total paid work increases, their behaviors regarding the inequality of its division differ. Indeed, while women appear to dislike unequal division of any type, men are found, on the contrary to be happier when they work more than their partner, and less happy when their partner works more than they do. This is, once again, in line with a bread-winner version of the gender-identity hypothesis and with what was found above.

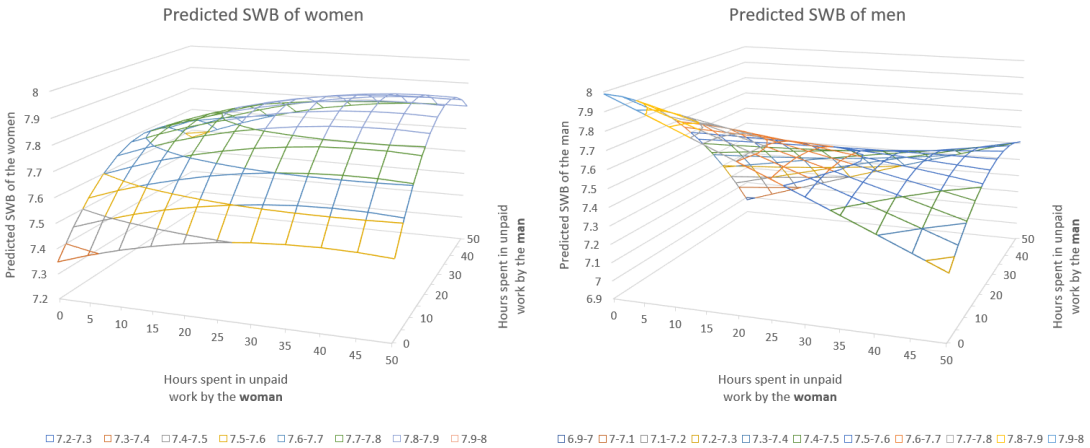
As far as unpaid work is concerned, panel (b) reveals that the dynamics are different as well for both genders and that, while women have a behavior that is comparable to the one with paid work, men's behavior differ from the one found for paid work. It appears, from panel (b), that women are happier when there is more unpaid work performed in the household, while men are the most happy when no unpaid work is performed in the household. Regarding the inequality diagonal, it appears that both men and women are more happy when there is an equal division of

Figure 5: Predictions of Life satisfaction scores of men and women for different combinations of work hours (paid and unpaid separately)

(a) Paid work



(b) Unpaid work



Note: This figure shows the predictions of life satisfaction scores of women and men when one varies the time spent at work activities by each partner; The regressions used to compute those predictions included the time spent on work activities by both partners in a quadratic form as well as an interaction term; Panel (a) of the Figure is concerned with paid work, while panel (b) with unpaid work; The results from those regressions can be found in Table A.3 for panel (a) and Table A.4 for panel (b), both in Appendix A.

unpaid work.

Parenthood is often considered as a life-changing event that has many consequences on the time allocations of both partners. This was confirmed in Table 2 in Section 3.2 as we saw that individuals with children end up working more and that most of the extra-burden, especially its unpaid part, falls on the women. It was, therefore, decided to perform the previous analysis broken down by parenthood status. That is, in addition to seeing how time allocation of both partners impacts their SWB, we want to see if there is also a difference depending on whether they have children or not.

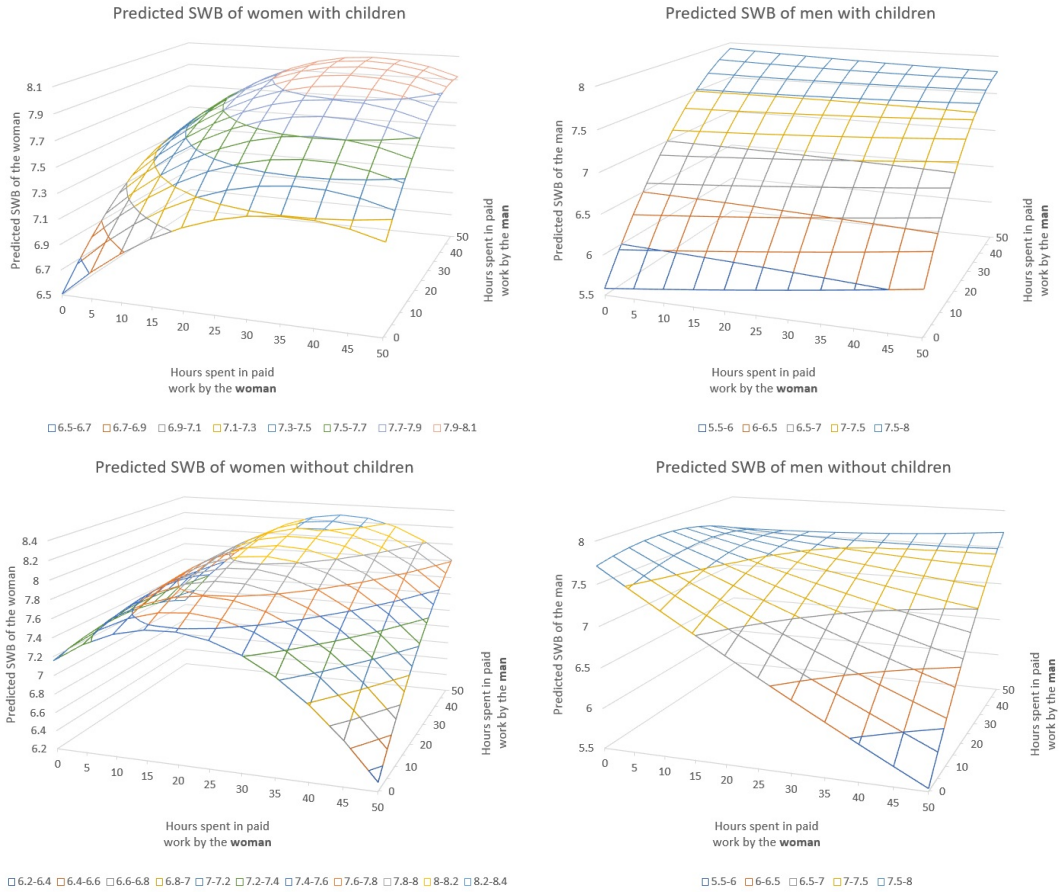
Figure 6 shows the predictions obtained for the analysis when individuals with and without children are considered separately. As for Figure 5, panel (a) is concerned with paid work and panel (b) with unpaid work. For each panel, the upper part is concerned with individuals with children and the lower part with individuals without children. We can first see, from panel (a), that the shape of the figure is quite similar for women whether they have children or not and to the one presented in panel (a) of Figure 5. Nonetheless, it is interesting to analyze those figures along the two diagonals described above. Looking at total work diagonal, we can see that, independently on having children, women seem to be happier when total paid work increases. However, if we now consider the other diagonal, it appears that women without children are more sensitive to unequal division of the paid work as the concavity of this diagonal is more pronounced, while women with children seem to be more indifferent. This is as well confirmed if we look at the results presented in Table A.3, in Appendix A, as it appears that the interaction term of the time spent by their partners and themselves is positive and significant for women without children. Overall, it seems that women without children behave more according to the egalitarian hypothesis with regard to the paid work, while women with children are more concerned about total paid work and less about its equal division. This could be raised by a stronger need for money when having children.

The figures of panel (a) obtained for men are interesting as well, as it appears that in both cases, the results can be linked to the gender-identity hypothesis although with some nuance between the two cases. Indeed, on the one hand, in the case with children, the findings are quite close to those of Figure 5 with the only difference that when they are not working, men are found to be slightly happier if their partners work more. The findings for men without children on the other hand, can be reconciled with a more extreme version of the gender-identity hypothesis as they are found to be more satisfied when the division of work is unequal and in their favor and less satisfied if it favors their partner. Furthermore, they do not seem to care much about the total amount of paid work of the household. This is completely in line with the bread-winner model, in which men should be earning more than their wives, and this, even if it results in both working only a very few hours.

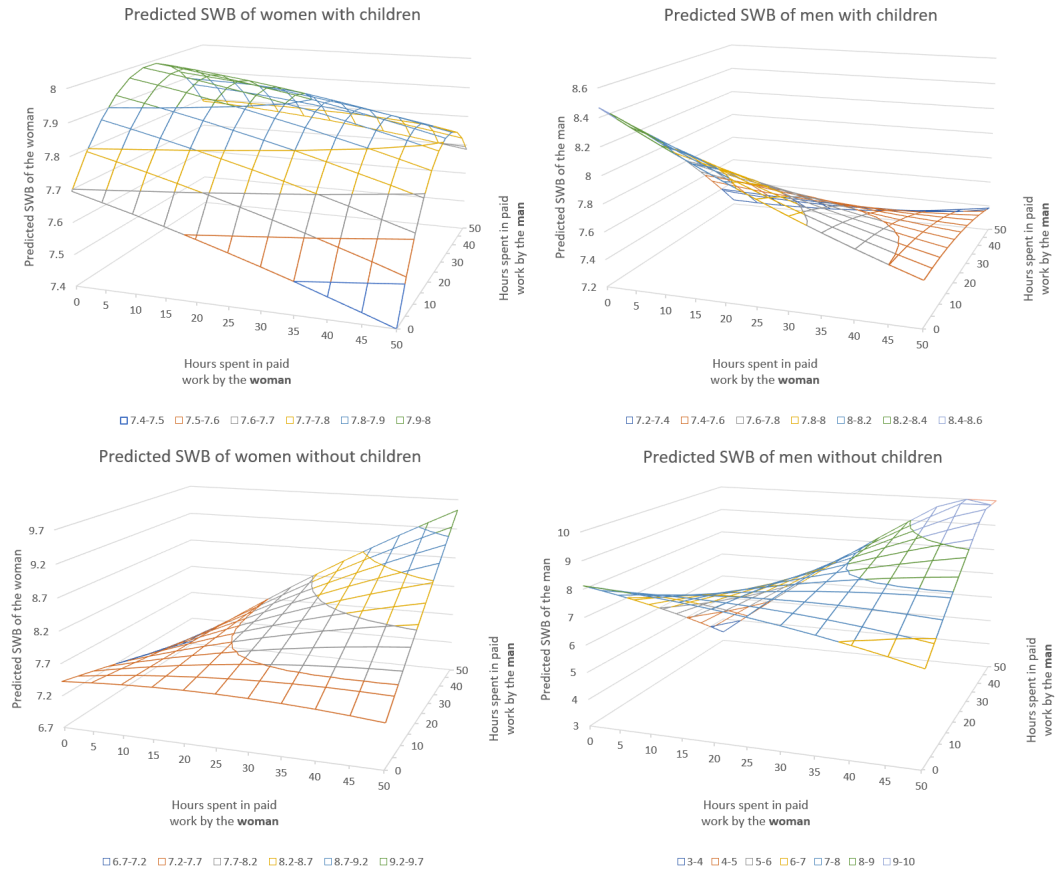
Panel (b) shows the results when unpaid work is considered for individuals with and without children. The results appear to be somewhat different than the ones for paid work and different as well depending on whether the individuals have children or not. For women, it appears that, when they have children, the time they spend on unpaid work is always negatively correlated with their life satisfaction while the relationship between their life satisfaction and the time spent on unpaid work by their partner is convex so that, overall, they are the most happy when their partner spends around 30 hours in unpaid work and they spend none. The results are quite different for women

Figure 6: Predictions of Life satisfaction scores of men and women with and without children

(a) Paid work



(b) Unpaid work



Note: This figure shows the predictions of life satisfaction scores of women and men when one varies the time spent at work activities (paid in panel (a), and unpaid in panel (b)) by each partner and conditional on having children or not; The regressions used to compute those predictions included the time spent on the work activity by both partners in a quadratic form as well as an interaction term; In both panels (a) and (b), the upper part considers individuals with children while the lower part considers individuals without children; The results from those regressions can be found in Table A.3, for panel (a), and Table A.4, for panel (b), both in Appendix A.

without children as they are found to be happier when the total unpaid work in the household increases and to favor a relatively equal division of the unpaid work. For men, while both men with children and without children appear to favor a relatively equal division of the unpaid work within the household, those without children are found to be happier when the total unpaid work performed in the household decreases while the ones with children are happier when it increases.

The results presented in this section show that taking into account the within household interdependencies is important in order to understand the behavior of men and women and to try to relate it to one of the hypothesis exposed in Section 2.1 (specialization, gender-identity, double-burden). They further support the idea that analyzing both men and women's case is crucial as it appears that they are behaving in opposite ways. Namely, as far as paid work is concerned, women seem to behave more according to the egalitarian hypothesis while men more to the gender-identity one. Those behaviors seem, however, to be soften by the fact of having children as we see that women start caring more about the total time spent at paid work by both partners and that men stop caring about their partner working more than they do. Concerning unpaid work and its relation with the individuals' life satisfaction, both men and women are found to favor relatively equal division of the unpaid work within the household. However, women are found to be happier when the total unpaid work performed in the household is larger while men when it is lower. Those results change if we look separately at individuals with and without children. For instance, men without children are found to be happier when the total unpaid work of the household increases. This, again, shows the interest and the need to consider the within household interactions in such type of studies and claims for further work on the effect of unpaid activities on the well-being of both men and women as well as taking into account parenthood.

6 Conclusion

This study looked at the time allocations of individuals with a focus on work activities, paid and unpaid, their division within the households as well as the link those can have with life satisfaction. This was done using the MEqIn database, a database representative for Belgium in 2016, that has the advantage of containing information on both partners in the household, as well as a measure of their personality traits.

Overall, this study showed that the time spent at paid and unpaid work by men and women is still very different, with men being more active in the paid activities and women in the unpaid ones. This division seems to occur independently of the level of education of the partners. The time spent at each activity appears to correlate differently with the subjective well-being of each gender. Analyzing the link between time allocations and subjective well-being (SWB) of men and women, it appears that women are happier when working part-time while men are found to be less happy when taking care of their children. Nonetheless, when looking at the within household division of paid and unpaid activities, it appears that the negative effect found for women working full-time holds only when they perform the majority of the unpaid work, backing up the double-burden hypothesis put forward in the public health literature. It further appears that analyzing both cases of men and women as well as taking into account the within households' interdependencies

in their time allocations is crucial in such studies as it is found that men's behavior can be related to Akerlof and Kranton (2000) gender-identity hypothesis (and even to its bread-winner version). While women's behavior is closer to an egalitarian hypothesis. Finally, some more interest should be given to parenthood in future studies as it is found that the behaviors of men and women described above are even more marked in the absence of children.

The sole focus on women as well as the lack of consideration of the within households' interdependencies concerning time allocations could have led previous studies such as Álvarez and Miles-Touya (2016) to conclude that there is a "continued dominance of traditional gender norms". This study showed that this is actually true only for men, while women appear to favor an egalitarian division of the paid work.

Further work on time allocation of individuals, its division within the households and its link with the life satisfaction could deepen the understanding of the effect of childcaring on both partners as well as the effect of parenthood while taking into account the within household interdependencies in time allocations.

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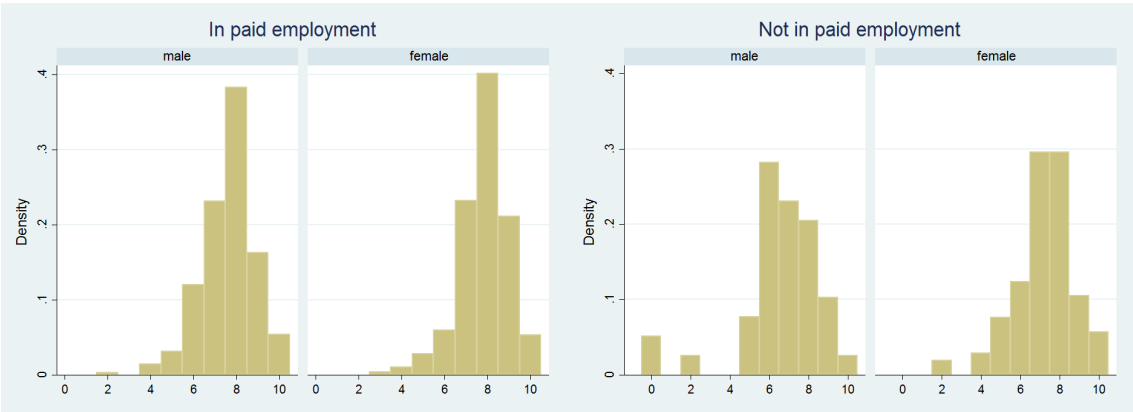
A First Appendix: additional figures and tables

Table A.1: Frequencies of the couples in which one, all or no partner is active in paid employment

Working status of couples	Freq.	Percent	Cum.
Both not working	27	6.89	6.89
Both working	272	69.39	76.28
Only man working	79	20.15	96.43
Only woman working	14	3.57	100
Total	392	100	

Figure A.1: Distribution of Life satisfaction of men and women for different groups



Mean		Pearson chi squared test		Mean		Pearson chi squared test	
Men	Women			Men	Women		
7.623	7.811	test-statistic	10.807	6.751	7.279	test-statistic	12.691
(0.074)	(0.070)	P-value	0.289	(0.300)	(0.156)	P-value	0.123

Note: This figure shows the distribution of the answers to the life satisfaction question: "Overall and on a scale from 0 to 10, how satisfied are you with your life nowadays?" This separately for men and women and for different groups. Chi squared tests were then performed to see if the distributions are different. The test statistics as well as the p-values are reported under the figure.

Table A.2: Full results from the regressions (OLS and Ologit) with time variables as continuous for men and women separately

		Women					Men				
		OLS				Ologit	OLS				Ologit
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Working status (OC: Voluntarily nonemployed)	Unemployed	-0.175	-0.021	-0.018	-0.068	-0.355	-0.427	-0.788	-1.170	-1.380*	-1.933
		(0.715)	(0.965)	(0.973)	(0.899)	(0.625)	(0.609)	(0.319)	(0.132)	(0.070)	(0.105)
	Employed	0.209	0.044	-0.189	-0.196	-0.410	-1.106	-0.719	-1.392	-1.990	-1.926
		(0.740)	(0.943)	(0.785)	(0.779)	(0.713)	(0.382)	(0.561)	(0.317)	(0.176)	(0.377)
	Disabled or sick	0.369	0.506	0.434	0.465	0.485	-0.432	0.120	-0.272	-0.512	-0.131
		(0.519)	(0.373)	(0.505)	(0.467)	(0.666)	(0.632)	(0.903)	(0.785)	(0.605)	(0.916)
	Family care	0.803*	0.808*	0.779	0.756	0.729					
		(0.070)	(0.076)	(0.129)	(0.135)	(0.319)					
Paid work	Hours per week/10	0.370	0.421*	0.541**	0.569**	0.880*	0.579	0.234	0.325	0.475	0.337
		(0.140)	(0.071)	(0.032)	(0.040)	(0.059)	(0.151)	(0.566)	(0.497)	(0.354)	(0.663)
	(Hours per week/10)^2	-0.041	-0.055*	-0.075**	-0.079**	-0.123**	-0.048	-0.015	-0.026	-0.040	-0.029
		(0.218)	(0.076)	(0.032)	(0.034)	(0.047)	(0.214)	(0.701)	(0.571)	(0.408)	(0.713)
Housework	Hours per week	0.003	-0.001	-0.000	-0.002	0.005	0.004	0.006	0.002	-0.002	-0.009
		(0.657)	(0.946)	(0.962)	(0.808)	(0.721)	(0.742)	(0.569)	(0.879)	(0.858)	(0.602)
Childcare	Hours per week	-0.002	-0.005	-0.005	-0.005	-0.003	-0.007	-0.010	-0.018*	-0.020**	-0.030**
		(0.704)	(0.373)	(0.451)	(0.465)	(0.745)	(0.443)	(0.291)	(0.085)	(0.046)	(0.022)
Adult care	Hours per week	0.021**	0.014	0.013	0.014	0.028	-0.008	-0.006	0.000	0.002	0.030**
		(0.027)	(0.188)	(0.269)	(0.224)	(0.128)	(0.607)	(0.651)	(0.995)	(0.893)	(0.031)
Age category (OC: 40-49)	18-29		-0.077	-0.039	-0.017	-0.203		-0.000	0.250	0.224	0.001
			(0.739)	(0.879)	(0.945)	(0.619)		(1.000)	(0.416)	(0.455)	(0.999)
	30-39		0.216	0.248	0.234	0.198		-0.204	-0.046	-0.063	-0.126
			(0.261)	(0.227)	(0.258)	(0.569)		(0.281)	(0.817)	(0.748)	(0.677)
	50-59		0.333	0.324	0.251	0.120		-0.099	0.066	0.012	-0.207
			(0.141)	(0.235)	(0.366)	(0.795)		(0.660)	(0.785)	(0.962)	(0.594)
	60+		-0.252	0.032	0.049	-0.152		0.112	0.226	0.213	0.102
			(0.573)	(0.945)	(0.911)	(0.839)		(0.675)	(0.470)	(0.509)	(0.833)
Marital status (OC: Cohabiting)	Single		-0.304	-0.312	-0.256	-0.291		-0.500	-0.598*	-0.585*	-0.450
			(0.271)	(0.275)	(0.401)	(0.491)		(0.130)	(0.078)	(0.072)	(0.284)
	Married		0.391**	0.414**	0.393**	0.633**		0.421**	0.432**	0.318*	0.510*
			(0.018)	(0.019)	(0.026)	(0.033)		(0.021)	(0.026)	(0.090)	(0.076)
	Divorced		-0.386	-0.616	-0.582	-0.738		0.651	0.731	0.584	0.833
			(0.533)	(0.278)	(0.347)	(0.426)		(0.153)	(0.129)	(0.235)	(0.319)
	Partner employed		0.281	0.298	0.285	0.402		0.064	-0.024	-0.092	0.022

			(0.408)	(0.397)	(0.402)	(0.508)		(0.733)	(0.911)	(0.675)	(0.950)
Education	Low		-0.293	-0.292	-0.343	-0.524		-0.128	-0.134	-0.001	0.014
(OC: Middle			(0.251)	(0.283)	(0.205)	(0.273)		(0.589)	(0.592)	(0.996)	(0.971)
education)	High		-0.032	-0.028	-0.033	-0.007		0.200	0.247	0.302*	0.497*
			(0.828)	(0.866)	(0.843)	(0.979)		(0.214)	(0.133)	(0.070)	(0.057)
Health	Better		0.297**	0.255*	0.249*	0.377		0.430***	0.377**	0.367**	0.576**
(OC: Good			(0.035)	(0.083)	(0.087)	(0.107)		(0.006)	(0.019)	(0.019)	(0.025)
health)	Worse		-0.525**	-0.490**	-0.426*	-0.466		-0.954***	-1.025**	-0.893**	-1.252***
			(0.017)	(0.038)	(0.079)	(0.184)		(0.010)	(0.010)	(0.021)	(0.009)
	Log (Household income)			0.076	0.012	-0.144			0.279	0.287	0.390
				(0.723)	(0.955)	(0.665)			(0.193)	(0.166)	(0.288)
	Living in a large city			-0.011	-0.018	0.003			-0.230	-0.181	-0.254
				(0.945)	(0.910)	(0.992)			(0.185)	(0.282)	(0.360)
	Number of children			-0.036	-0.042	-0.092			0.092	0.075	0.104
				(0.676)	(0.625)	(0.502)			(0.341)	(0.342)	(0.444)
The 5 Big	Extraversion				0.039	0.039				0.098*	0.199**
personality					(0.425)	(0.622)				(0.086)	(0.033)
traits	Agreeableness				-0.006	0.029				0.149**	0.327***
					(0.931)	(0.793)				(0.034)	(0.005)
	Conscientiousness				-0.038	-0.035				0.015	0.121
					(0.550)	(0.753)				(0.817)	(0.213)
	Emotional Stability				0.133**	0.255***				0.195***	0.366***
					(0.017)	(0.005)				(0.004)	(0.001)
	Openness				-0.054	-0.100				0.015	-0.027
					(0.333)	(0.252)				(0.816)	(0.770)
	Constant	6.719***	6.370***	5.855***	6.161***		7.189***	7.222***	5.441***	3.328*	
		(0.000)	(0.000)	(0.001)	(0.000)		(0.000)	(0.000)	(0.002)	(0.062)	
	N	392	379	351	350	350	392	382	354	350	350
	R-squared	0.086	0.183	0.173	0.198		0.062	0.182	0.215	0.266	
	Pseudo R-squared					0.066					0.094

Notes: * p<0.10, ** p<0.05, *** p<0.01; p-values are in parentheses; This table present the full results of the regressions for which the for which the time variables were taken as continuous; OC stands for Omitted Category; The columns (5) and (10) report results of the ordered logit regressions, while the other columns report results from OLS regressions; Columns (4),(5),(9) and (10) excluded all individuals in households in which one of the partners has missing values for the variables included; Given the different cuts for the ordered logit regressions, the constants are not shown.

Table A.3: Results from the regressions with an interaction term of the partner's paid work hours

		Women			Men		
			Children	No children		Children	No children
		(1)	(2)	(3)	(4)	(5)	(6)
Working status (OC: Voluntarily nonemployed)	Unemployed	-0.088	0.284	-0.379	-1.546*	-0.558	-5.233***
		(0.869)	(0.727)	(0.507)	(0.078)	(0.494)	(0.001)
	Employed	-0.117	0.449	-0.281	-1.842	-2.060	-4.547***
		(0.868)	(0.703)	(0.768)	(0.216)	(0.405)	(0.004)
	Disabled or sick	0.463	0.968	0.082	-0.643		-4.750***
		(0.469)	(0.342)	(0.905)	(0.557)		(0.009)
	Family care	0.756	1.416*	-0.144			
		(0.132)	(0.069)	(0.804)			
Own paid work	Hours per week/10	0.175	0.339*	0.113	0.383	0.752	0.108
		(0.142)	(0.055)	(0.403)	(0.435)	(0.396)	(0.811)
	(Hours per week/10)^2	-0.021	-0.035	-0.027	-0.039	-0.057	-0.028
		(0.145)	(0.107)	(0.134)	(0.418)	(0.478)	(0.533)
Partner's paid work	Hours per week/10	0.459	0.432	0.468	-0.210	0.080	-0.471*
		(0.137)	(0.362)	(0.345)	(0.298)	(0.738)	(0.081)
	(Hours per week/10)^2	-0.078**	-0.059	-0.128*	0.016	0.003	0.007
		(0.039)	(0.240)	(0.081)	(0.537)	(0.931)	(0.867)
Interaction of partner's and own paid work		0.019	-0.003	0.065*	0.026	-0.024	0.093*
		(0.443)	(0.925)	(0.064)	(0.458)	(0.561)	(0.076)
Housework	Hours per week	-0.003	-0.003	-0.004	-0.002	-0.012	-0.000
		(0.759)	(0.789)	(0.727)	(0.886)	(0.423)	(0.991)
Childcare	Hours per week	-0.005	-0.007		-0.020**	-0.013	
		(0.409)	(0.372)		(0.046)	(0.249)	
Adult care	Hours per week	0.013	-0.012	0.048**	0.002	-0.003	0.012
		(0.260)	(0.347)	(0.012)	(0.864)	(0.814)	(0.588)
	N	350	209	141	350	209	141
	R-squared	0.208	0.243	0.393	0.270	0.349	0.340

Note: * p<0.10, ** p<0.05, *** p<0.01; P-values are in parenthesis; All controls were included in the regressions presented in each of the 6 columns; Individuals in households in which one of the partners has missing values for the variables included were excluded for this exercise; In columns (2) and (5), only individuals in households with children were included; In columns (3) and (6), only individuals in households without children were included.

Table A.4: Results from the regressions with an interaction term of the partner's unpaid work hours

		Women			Men		
			Children	No children		Children	No children
		(1)	(2)	(3)	(4)	(5)	(6)
Working status (OC: Voluntarily nonemployed)	Unemployed	-0.103	0.422	-0.458	-1.283*	-0.554	-4.169***
		(0.841)	(0.602)	(0.435)	(0.095)	(0.532)	(0.000)
	Employed	-0.212	0.414	-0.294	-1.735	-1.302	-2.521*
		(0.757)	(0.726)	(0.779)	(0.234)	(0.576)	(0.059)
	Disabled or sick	0.372	1.021	0.060	-0.212		-2.405***
		(0.552)	(0.317)	(0.931)	(0.825)		(0.002)
	Family care	0.771	1.545**	0.102			
		(0.109)	(0.044)	(0.854)			
Paid work	Hours spend per week/10	0.509*	0.455	0.606	0.450	0.564	0.021
		(0.059)	(0.282)	(0.267)	(0.376)	(0.495)	(0.963)
	(Hours spend per week/10)^2	-0.070*	-0.061	-0.101	-0.036	-0.045	0.004
		(0.056)	(0.219)	(0.220)	(0.461)	(0.565)	(0.937)
Own unpaid work	Hours spend per week/10	0.085	-0.048	0.075	-0.073	-0.202	-0.850**
		(0.441)	(0.762)	(0.776)	(0.694)	(0.276)	(0.027)
	(Hours spend per week/10)^2	-0.011	-0.002	-0.017	-0.026	-0.009	-0.019
		(0.284)	(0.846)	(0.675)	(0.333)	(0.744)	(0.748)
Partner's unpaid work	Hours spend per week/10	0.220	0.215	-0.121	-0.142	-0.232	-0.123
		(0.157)	(0.254)	(0.689)	(0.204)	(0.152)	(0.653)
	(Hours spend per week/10)^2	-0.035*	-0.039*	-0.003	-0.001	0.009	-0.044
		(0.076)	(0.099)	(0.950)	(0.923)	(0.512)	(0.290)
Interaction of partner's and own unpaid work		0.003	0.008	0.113	0.051	0.044*	0.372***
		(0.893)	(0.769)	(0.112)	(0.126)	(0.068)	(0.001)
	N	350	209	141	350	209	141
	R-squared	0.201	0.230	0.360	0.273	0.357	0.422

Note: * p<0.10, ** p<0.05, *** p<0.01; P-values are in parenthesis; All controls were included in the regressions presented in each of the 6 columns; Individuals in households in which one of the partners has missing values for the variables included were excluded for this exercise; In columns (2) and (5), only individuals in households with children were included; In columns (3) and (6), only individuals in households without children were included.

B Second Appendix: Robustness checks

Given the presence of measures on the characteristics of the job in the database, we decided to test for the robustness of the results by including those measures as controls. In the MEqIn database, working individuals were interviewed about the characteristics of their job. In particular, respondents could indicate on a six-point scale to what extent they agreed with a series of statements about their job. Such statements included questions such as: *whether the job requires a lot of physical/mental effort*, *whether they work in dangerous or unsafe conditions*,... (All the available questions can be found in the codebook of the database. This codebook can be downloaded on the following website: https://sites.google.com/view/meqin/data.). Individuals could answer the questions on a scale from 1 to 6 going from *Strongly disagree* to *Strongly agree*.

Since individuals might have different preferences regarding the characteristics of their job, they were as well interviewed about what they would consider an ideal job (i.e. What characteristics this ideal job should have. Is it a job with a lot of, e.g, physical effort and/or mental effort?). The job characteristics were then grouped in the four dimensions based on whether the job is: challenging, physically demanding, allows for autonomy, asks for intellectual efforts. (See Chapter 9 in Capéau et al. (2020) for more information on the answers to the questions related to the job characteristics and the construction of the dimensions).

The working individuals were as well asked for their overall satisfaction with their current job. As for the life satisfaction, the answer could range from 0 to 10. Finally, the MEqIn database contains a measure of the willingness-to-pay (WTP) of the individuals for their ideal job. In a nutshell, this measure tells us how much individuals would be willing to pay (or to reduce their current consumption) in order to go from their current job to their ideal one. The WTP has the advantage of allowing for different preferences of the individuals regarding the importance of the job dimensions. That is, an individual who has a job far from his/her ideal one but who does not think that his/her job is an important driver of his/her well-being would have a low WTP, while an individual with a job close to his/her ideal one but different on some dimensions and who gives a lot of importance to those dimensions would have a high WTP. However, the WTP has some drawbacks as well, as it is not always an easy thought experiment for the interviewed individuals and as constrained individuals (i.e. the ones in precarious positions) can sometimes simply not consider reducing their consumption, or paying for a better job (e.g. if their income level is already too low). More information on WTP and its construction within the MEqIn database can be found in chapter 23 and 24 of Capéau et al. (2020).

Table B.1 reports the results of the regressions for which the job related measures were included both for women and men separately (Panel A and B respectively). Since the job related measures were collected only for working individuals, column (1) reports the results when performing the same regression as in columns (4) and (9) of Table 4 (i.e. OLS with full controls) but this time conditional on being active in paid employment. It appears from this column that the results found above remain stable when we consider only individuals active in paid employment. Table B.1 then reports, in columns (2) to (5), results when each of the four dimensions of the job are included as controls. Columns (6) and (7) report the results when the job satisfaction and the WTP for the ideal job are included respectively.

Concerning women, it appears that the dimensions related to mental or physical effort and to whether the job is challenging are significantly positively linked with their life satisfaction. While

Table B.1: Results from the regressions with the inclusion of job related measures

Panel A: Effect of the inclusion of job related measures on the results for women

		Baseline	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Paid work	Hours per week/10	0.569**	0.471*	0.480*	0.459*	0.457*	0.304	0.329	0.516*
		(0.040)	(0.082)	(0.061)	(0.089)	(0.076)	(0.217)	(0.172)	(0.059)
	(Hours per week/10)^2	-0.079**	-0.065*	-0.061*	-0.063*	-0.061*	-0.046	-0.043	-0.072*
		(0.034)	(0.077)	(0.083)	(0.084)	(0.084)	(0.186)	(0.203)	(0.055)
Housework	Hours per week	-0.002	-0.000	0.003	-0.000	-0.000	-0.003	0.002	-0.001
		(0.808)	(0.999)	(0.733)	(0.982)	(0.992)	(0.770)	(0.802)	(0.938)
Childcare	Hours per week	-0.005	0.002	0.004	0.001	0.003	0.003	0.006	-0.000
		(0.465)	(0.724)	(0.557)	(0.842)	(0.608)	(0.591)	(0.363)	(0.971)
Adult care	Hours per week	0.014	0.018	0.019	0.017	0.017	0.016	0.014	0.017
		(0.224)	(0.196)	(0.145)	(0.210)	(0.203)	(0.208)	(0.253)	(0.224)
Score: intellactual effort in job				0.011***					
				(0.007)					
Score: autonomy in job					-0.003				
					(0.411)				
Score: physical effort in job						0.009*			
						(0.079)			
Score: job challenging and valuable							0.014***		
							(0.002)		
Overall satisfaction with job								0.233***	
								(0.001)	
WTP for ideal job									-0.000
									(0.507)
	N	350	262	262	262	262	262	262	250
	R-squared	0.198	0.182	0.210	0.186	0.198	0.221	0.242	0.185

Panel B: Effect of the inclusion of job related measures on the results for men

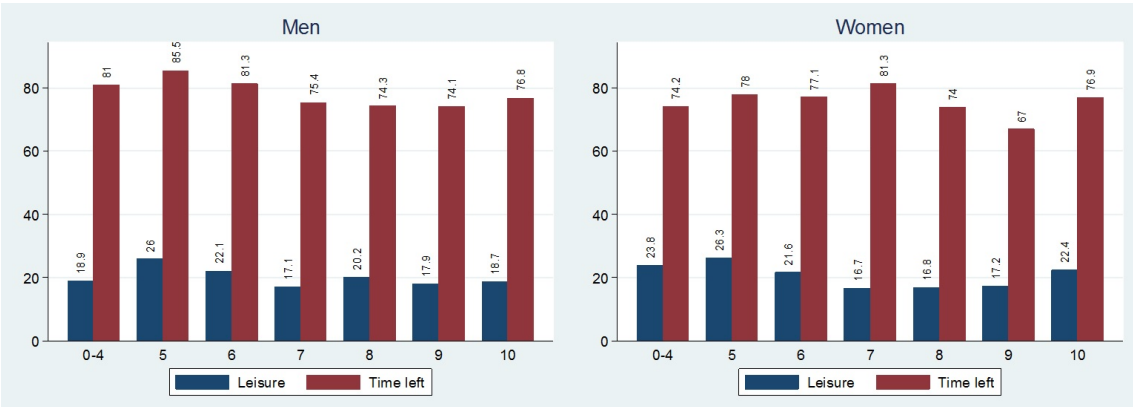
		Baseline	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Paid work	Hours per week/10	0.475	0.507	0.440	0.498	0.502	0.465	0.376	0.418
		(0.354)	(0.330)	(0.382)	(0.329)	(0.335)	(0.348)	(0.346)	(0.450)
	(Hours per week/10)^2	-0.040	-0.042	-0.036	-0.042	-0.041	-0.039	-0.031	-0.035
		(0.408)	(0.388)	(0.440)	(0.385)	(0.396)	(0.398)	(0.396)	(0.497)
Housework	Hours per week	-0.002	0.002	0.002	0.002	0.002	0.003	0.001	0.001
		(0.858)	(0.896)	(0.873)	(0.881)	(0.896)	(0.848)	(0.956)	(0.961)
Childcare	Hours per week	-0.020**	-0.014	-0.015	-0.014	-0.014	-0.012	-0.014	-0.016
		(0.046)	(0.155)	(0.118)	(0.152)	(0.164)	(0.219)	(0.136)	(0.107)
Adult care	Hours per week	0.002	0.013	0.016	0.013	0.013	0.016*	0.022***	0.011
		(0.893)	(0.204)	(0.108)	(0.165)	(0.204)	(0.081)	(0.004)	(0.270)
Score: intellactual effort in job				0.010**					
				(0.034)					
Score: autonomy in job					0.003				
					(0.552)				
Score: physical effort in job						-0.002			
						(0.558)			
Score: job challenging and valuable							0.012**		
							(0.028)		
Overall satisfaction with job								0.276***	
								(0.000)	
WTP for ideal job									-0.001
									(0.277)
	N	350	316	316	316	316	316	316	303
	R-squared	0.266	0.247	0.264	0.249	0.248	0.268	0.326	0.251

Notes: * p<0.10, ** p<0.05, *** p<0.01; p-values are in parentheses; This table present the results of the regressions for which job related measures were included; Panel A report those results for women and Panel B for men; The column "Baseline" reports the results presented before in Table 4; Since the job related measures were collected only for working individuals, column (1) reports the previous results conditional on being active in paid employment; Columns (2) to (5) report results when including measures related to different dimensions of the job characteristics; Column (6) reports the results when the job satisfaction measure is included; Column (7) reports the results when the WTP for the ideal job is included; All columns include as controls the personal characteristics: age, marital status, education, health of the individual, and whether his/her partner is employed, household characteristics: the logarithm of the household's income, the number of children in the household as well as whether the household lives in a large city, and personality traits: extraversion, agreeableness, conscientiousness, emotional stability, openness.

the dimension related to the autonomy in the job is negatively linked with their life satisfaction although it is insignificant. For men, we observe only a significant (and positive) link with the SWB of the intellectual and challenging dimensions. As can be seen from columns (6) of both Panel A and Panel B, the job satisfaction appears to be highly correlated with the life satisfaction of men and women in a positive way. Finally, while the expected sign is found for the WTP in both columns (7) (i.e. the more you are ready to pay for your ideal job the less satisfied you are with your life), it is not significant neither for women nor for men. Overall, the results found for the number of hours spent at work activities are relatively robust to the inclusion of the job related measures, although the effects found for paid work for women are not significant anymore when the challenging dimension of the job is introduced and when the job satisfaction is controlled for.

Since leisure is central in the standard neoclassical theory of labor supply, we as well investigated the potential link that leisure might have with the individuals' SWB. To do so, two variables were used: Leisure and Time left. As explained above, this last variable was constructed as the amount of time left in a week when all the previous time use questions have been answered. Figure B.1 reports the average leisure time and time left per week by men and women with different satisfaction level. Overall, no general trend seems to appear between life satisfaction of men and women and both time left and time spent in leisure, although the men with the lower satisfaction scores are found to have more time left on average, which could simply be due to the fact that they are unemployed as explained above.

Figure B.1: Time left and spent in Leisure for different life satisfaction scores



Note: This figure shows the mean time left and spent in leisure for men and women with different life satisfaction scores. The scores from 0 to 4 were pooled together given the few observations with those scores.

We then performed the same regression as in Section 5.1 with Leisure and Time Left as the time use variables for women and men separately. Table B.2 show the results of those regressions. As seemed to be the case in Figure B.1, no effect of leisure or time left on life satisfaction is found.

Table B.2: Results from the regressions with leisure and time left for men and women separately

		Women			Men		
		(1)	(2)	(3)	(4)	(5)	(6)
Working status (OC: Voluntarily nonemployed)	Unemployed	-0.049	-0.034	-0.038	-1.425*	-1.441*	-1.441*
		(0.927)	(0.949)	(0.943)	(0.067)	(0.063)	(0.063)
	Employed	0.698	0.669	0.677	-0.687	-0.737	-0.737
		(0.113)	(0.136)	(0.134)	(0.285)	(0.268)	(0.272)
	Disabled or sick	0.442	0.459	0.453	-0.381	-0.393	-0.392
		(0.472)	(0.455)	(0.458)	(0.721)	(0.700)	(0.708)
	Family care	0.787	0.800*	0.793			
		(0.108)	(0.100)	(0.104)			
Leisure	Hours spent per week	0.003		0.001	0.001		-0.000
		(0.728)		(0.878)	(0.877)		(0.995)
Time left	Hours spent per week		-0.002	-0.002		-0.001	-0.001
			(0.592)	(0.695)		(0.795)	(0.839)
	N	350	350	350	350	350	350
	R-squared	0.185	0.185	0.185	0.244	0.244	0.244

Notes: * p<0.10, ** p<0.05, *** p<0.01; p-values are in parentheses; This table present the results of the regressions with leisure and time left; OC stands for Omitted Category; Individuals in households in which one of the partners has missing values for the variables included were excluded for this exercise; All the regressions performed included personal characteristics (age,marital status, education, health, partner employed), household characteristics (income, number of children, living in a large city), and personality traits (extraversion, agreeableness, conscientiousness, emotional stability, openness) as controls.