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Relatively Different? How do Gender Differences in Well-Being Depend on Paid and Unpaid Work in Europe?

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Abstract Absolute as well as relative hours of paid and unpaid work may influence well-being. This study investigates whether absolute hours spent on paid work and housework account for the lower well-being among women as compared to men in Europe, and whether the associations between well-being and hours of paid work and housework differ by gender attitudes and social context. Attitudes towards women's and men's paid work and housework obligations may influence how beneficial or detrimental it is to spend time on these activities, as may social comparison of one's own hours to the number of hours commonly spent among similar others. A group of 13,425 women and men from 25 European countries are analysed using country fixed-effects models. The results suggest that while men's well-being appears to be unaffected by hours of paid work and housework, women's well-being increases with increased paid working hours and decreases with increasing housework hours. Gender differences in time spent on paid work and housework account for a third of the European gender difference in well-being and are thus one reason that women have lower well-being than men have. Gender attitudes do not appear to modify the associations between hours and well-being, but there is a tendency for women's well-being to be higher the less housework they do compared to other women in the same family situation and country. However, absolute hours of paid work and housework appear to be more important to women's well-being than relative hours.

Keywords Well-being · Paid working hours · Housework hours · Gender · Gender attitudes · Social comparison · Europe

1 Introduction

Time spent on paid work has been associated with high well-being in several studies, while long hours spent on unpaid work within the family is associated with low well-being, or unrelated to well-being (Bird and Fremont 1991; Glass and Fujimoto 1994; Gähler and

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Rudolphi 2004; Kessler and McRae 1982). This has been shown to contribute to the lower well-being among women as compared to men in Sweden (Boye 2008) and the US (Bird 1999). The aim of the present study is to investigate whether the associations between well-being and paid and unpaid work differ by gender attitudes and social context and whether time spent on paid and unpaid work account for any of the gender difference in well-being in Europe.

Hours spent on paid and unpaid work may not have the same meaning to everyone. Attitudes concerning paid and unpaid work and comparison of ones own hours with the hours commonly spent by similar others may influence the associations between hours devoted to paid and unpaid work and well-being. Gender attitudes may render different types of work more or less attractive and hence more or less beneficial to well-being. In heterosexual couples, people with egalitarian gender attitudes divide housework more equally than do people with traditional gender attitudes (Buunk et al. 2000; Cunningham 2005; Nordenmark 2004), and egalitarian women do more paid work than traditional women do (Corrigall and Konrad 2007; Nordenmark 2004). On the other hand, several studies show incongruence between people's gender attitudes and their work (Goldberg and Perry-Jenkins 2004; McHale and Crouter 1992; Perry-Jenkins 1992). Hence, it is likely that external factors place restraints on the time that people spend on paid and unpaid work and on the division of labour in households, creating discrepancies between actual hours spent and the hours that would accord with the preferences people have developed based on their gender attitudes (Corrigall and Konrad 2007; McRae 2003). This may in turn cause distress (Kroska 1997), resulting in lower well-being among people who have not managed to arrange their paid and unpaid work according to their gender attitudes.

The countries of Europe exhibit quite diverging numbers of hours spent on paid and unpaid work among women, and also, although to a smaller degree, among men (Aliaga 2006). The time spent on paid and unpaid work also differs depending on the presence and age of children in the household (Coltrane 2000). Theories of social comparison (e.g., Festinger 1954; Merton 1957) predict beneficial effects on well-being of behaving in a way that is in line with common behaviour among individuals that resemble oneself in central aspects. As women and men spend a different amount of time on paid and unpaid work depending on where they live and their family situation, it seems plausible that well-being is promoted by a time use that is common among individuals of the same sex and family situation in the same country. That is, not only absolute but also relative hours of paid and unpaid work may be of importance to women's and men's well-being.

This study makes use of the considerable variation in time spent on paid work and housework displayed by European women and men to investigate the importance of time spent on these activities for the gender difference in well-being, and to study whether gender attitudes and social comparison influence the associations between work and well-being. The analysis is based on data from the 25 countries participating in the European social survey (ESS) Round 2.

2 Paid and Unpaid Hours, Gender and Well-Being

When direct relationships between well-being and the amount of time an individual spends on paid and unpaid work have been examined, significant associations have been found for both types of work, although often in opposite directions. In the United States, paid working time shows a negative relationship to depression among women and men, but this

negative association gradually weakens and turns positive at longer working hours (Glass and Fujimoto 1994). Also in the United States, housework hours are associated with higher levels of stress among women and, in some studies, also among men (Coltrane 2000; Glass and Fujimoto 1994; Roxburgh 2004). However, Swedish studies have found that paid work is associated with less distress only among women (Boye 2008; Gähler and Rudolphi 2004), and that time spent on housework is not related to distress (Gähler and Rudolphi 2004) or positively related only at longer hours while being negatively related at shorter hours (Boye 2008). On the condition that the associations regarding positive well-being are similar to those regarding negative aspects such as depression and distress, it is hypothesized that:

H1 There is a positive but curvilinear association between paid working hours and well-being among women and men. The association may be weaker among men than among women.

H2 There is a negative, possibly weak or insignificant, association between hours of housework and well-being among women and men.

Several studies show that well-being is lower among women than among men (see, e.g., Frankenhaeuser et al. 1989; Karasek et al. 1987; McDonough and Walters 2001; Mirowsky and Ross 1995) and one reason for this is that women do more housework than men do (see, e.g., Bird 1999). I have in a previous, Swedish study found that housework hours account for 40% of the gender difference in well-being, while paid working hours did not contribute to the gender difference (Boye 2008). Considering the large differences in paid working hours among European women and men (c.f. Aliaga 2006), the present study will investigate whether not only housework hours but also paid working hours contribute to the gender difference in well-being in Europe. The third hypothesis reads:

H3 Gender differences in time spent on paid work and housework account for part of the European gender difference in well-being.

3 The Influence of Gender Attitudes on Well-Being and Paid and Unpaid Work

In European as well as other countries, egalitarian gender attitudes among women are associated with a higher probability of being employed and with longer paid working hours (Corrigall and Konrad 2007; Nordenmark 2004) and among both women and men, egalitarian attitudes are associated with a more equal division of housework (Buunk et al. 2000; Cunningham 2005; Nordenmark 2004). Hence, people appear to adjust their paid and unpaid work to their gender attitudes. This may be beneficial to well-being. An equal division of housework has been shown to be associated with high well-being mainly among women with egalitarian gender attitudes and women in full-time employment (Piña and Bengtson 1993). Also, discrepancies between, on the one hand, gender attitudes or preferences and, on the other hand, time spent on paid work and the division of paid and unpaid work have been shown to be associated with lower well-being (Goldberg and Perry-Jenkins 2004; Loscocco and Spitze 2007; Perry-Jenkins 1992). Kroska (1997) proposes a model for understanding this by interpreting gender attitudes as reflecting an identity: the individual's gender-ideological identity. While the gender-ideological identity does influence work patterns, social and economic factors may limit the options available to the individual and thus shape her/his work pattern in a way that does not accord with her/his gender-ideological identity (see also Corrigall and Konrad 2007; Crompton and Lyonette 2005; McRae

2003). The resulting discrepancy between the individual's work pattern and her/his gender-ideological identity causes distress. Kroska (1997) argues that identity is more important for behaviour than are attitudes. With the data at hand, it is not possible to take into account the respondent's gender-ideological identity but only her/his gender attitudes as such. Still, the two undoubtedly are correlated. The fourth hypothesis reads:

H4 Paid working hours are more positively and hours of housework more negatively associated with well-being among women the more egalitarian their gender attitudes are. Among men, paid working hours are less positively and hours of housework less negatively associated with well-being the more egalitarian their gender attitudes are.

4 Social Comparison of Paid and Unpaid Work

Most existing studies of the relationships between well-being and paid and unpaid work are single country studies (see, e.g., Coltrane 2000; Glass and Fujimoto 1994; Gähler and Rudolphi 2004; Roxburgh 2004). However, different countries display varying amounts of time commonly used for paid and unpaid work, and in European as well as other countries, significant differences in the common hours spent exist by gender (Aliaga 2006) and parental status (Coltrane 2000). Thus, the associations between work and well-being may vary significantly depending on both location and individual characteristics. According to the theory of social comparison, we have an intrinsic need to evaluate our own situation, and in the absence of an objective criterion that can be used to assess the quality of our situation, we rely on comparisons with the situation of others. Upward comparison, i.e., to people who are better off than ourselves, tends to result in negative feelings whereas downward comparison, i.e., to people who are worse off, tends to result in positive feelings (Festinger 1954). Comparison is often made to persons of the same sex, age and status (Vanyperen and Buunk 1991). Although we do not restrict our comparisons to people with whom we have a social relationship, those located in our immediate environment such as friends and family seem to constitute particularly significant reference groups (Merton 1957; Wheeler and Miyake 1992). The larger society is also important as it "tells" us what groups we belong to and what these memberships should be associated with in terms of possession of objects, potential for different actions, restrictions on action etc. Furthermore, society is important in signalling to us what to strive for and what to avoid (Crosby 1976).

To the best of my knowledge, there are no studies of social comparison of the *number of hours* spent on housework or of paid working time, but US studies have found that married/cohabiting parents compare their *division of housework* to that prevailing among friends and relatives, most often those in a similar situation in terms of sex, age and civil and parental status. One aim of such comparisons is to assess the normality or accuracy of the couple's division of housework. However, women who experienced their division of housework as more equal than that of their friends and relatives were more satisfied with the division and experienced less role strain (Gager 1998; Himsel and Goldberg 2003). Men, on the other hand, were more satisfied with the division of housework and therefore experienced less role strain if they perceived that their wives performed a relatively large share of housework (Himsel and Goldberg 2003). The matter is further complicated by the results of studies that indicate that we sometimes actively choose reference groups that protect us from negative feelings such as disappointment or envy (Crosby 1976). Accordingly, studies of social comparison of the division of housework have found that

men and women often choose referents that affirm their household's particular division of housework and cast the man's contribution in a favourable light (Gager 1998; Himsel and Goldberg 2003).

According to these empirical studies, social comparison of housework appears to take place, although it is not clear whether normality or gender equality is the ideal couples usually want to attain. According to the theory of social comparison, we generally strive for conformity and normality within a group, and those who do not conform to normality tend to strive to change themselves in accordance with the majority (Festinger 1954). Consequently, the situation in a dominant group, for example its common time used for paid and unpaid work, can serve as an ideal to which the individual tries to adapt and thus affect the preferences that she/he forms regarding time spent on paid and unpaid work. Spending a shorter or a longer time on a specific type of work than is common in the reference group would result in upward comparison and thus negative feelings. The fifth hypothesis therefore reads:

H5 Well-being is higher among women and men with a common amount of time spent on paid work or housework compared to others with the same sex and family situation in the same country, than among women and men who spend an unusual amount of time on these activities.

5 Data, Method and Variables

5.1 Data and Method

The European social survey (ESS) Round 2 was conducted in 25 European countries in 2004 and 2005. To maximize the variation in paid and unpaid working hours, the present study makes use of data from all included countries, i.e., Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and the United Kingdom. The respondents included in the present study are involved in heterosexual relationships, married/cohabiting, aged 20–65 and either employed or full-time homemakers. The sample thus excludes students, pensioners, unemployed and those who are not working due to health problems (e.g., on full-time or part-time sick leave). The main sample consists of 13,425 respondents, of whom 7,688 (57.3%) are female and 5,737 (42.7%) are male. The country sample sizes range from 145 on Iceland to 776 in Germany.[1]

The multivariate analyses are OLS regressions with country fixed effects, i.e., dummy variables for all but one country are included in all models. As time spent on paid and unpaid work as well as social expectations and norms around these types of work differ a great deal between women and men, different results can be expected for women and men. Therefore, women and men are analysed separately in all analyses except the analysis of the gender difference in well-being. Weights are used in all descriptive analyses (except in reports of actual numbers of individuals) to correct for differences in sample design and

[1] A full table of sample sizes and proportions of females in each country are available from the author upon request.

population size between countries. In the multivariate analyses, the data are weighted to correct only for differences in sample design.

5.2 Dependent Variable

The WHO-Five Well-being Index is constructed to measure positive psychological well-being such as positive mood, vitality and general interests (Psychiatric Research Unit 2008). The respondents chose between six possible answers, from "At no time" to "All of the time", to the following statements regarding the 2 weeks preceding the interview: "I have felt cheerful and in good spirits", "I have felt calm and relaxed", "I have felt active and vigorous", "I have woken up feeling fresh and rested" and "My daily life has been filled with things that interest me". The answers are coded from 0 to 5, giving an index ranging from 0 to 25 where 0 represents the lowest well-being and 25 represents the highest well-being. In the present sample, Cronbach's Alpha is 0.82.

5.3 Independent Variables

Hours of paid work is the total number of hours normally worked per week, including overtime. In the regression analyses, a standardized version of the variable is used.

In the ESS, there is no information on the number of hours the respondent spends on housework during a normal week. Instead, the respondent is asked about the total number of hours spent on housework in the respondent's household and whether she/he spends none or almost none of this time; up to a quarter of the time; more than a quarter, up to a half of the time; more than a half, up to three quarters of the time; more than three quarters, less than all of the time; all or nearly all of the time. The variable *hours of housework* represents the mean of the minimum and maximum possible number of hours the respondent spends given the total number of hours spent in the respondent's household and her/his share of these hours. Hence, because the total hours spent in the household is indicated by a continuous variable, the variable *hours of housework* is also continuous, even though it is partly based on the categorized indicator of share of housework. In the questionnaire, housework is defined as "things done around the home, such as cooking, washing, cleaning, care of clothes, shopping, maintenance of property, but not including childcare and leisure activities". A standardized version of the variable is used in the regression analyses.

Reference groups are defined by country, sex, whether there are children in the household and when there are, whether the youngest child is aged 0–6, 7–18 or 19 or older (this includes all children living in the household, i.e., the respondent's biological children as well as adopted children, partner's children, etc).[2] For example, a reference group may include women in Sweden whose youngest child in the household is 0–6 years or men in Ukraine without children in the household. With 25 countries, two sexes and four parent/non-parent categories, there are 200 reference groups. Although 15 reference groups include less than 20 respondents and two include as few as five respondents, most range in size from 20 to 179 and the median group size is 63. There are other factors that could be relevant to include in the definition of reference groups, such as age, educational level or social position. However, to add these to the present definition would result in too small reference groups. Alternatively, age, educational level and/or social position could be substituted for the present criteria, but sex and family situation are chosen as they are more

[2] A more detailed categorization of the age of the youngest child would have been preferable but is not possible to use due to the small number of cases in the resulting reference groups.

relevant than age or socio-economic groups are to social policy regarding the gender division of labour. However, age and educational level are included as control variables in all analyses (see below).

Social comparison is operationalized by decomposing the individual's standardized hours of paid work or housework into the deviation of the individual's hours from the reference group mean and the deviation of the reference group mean from the overall, European mean for the individual's gender. This way, the importance of comparison of ones own hours with the mean hours in ones reference group is distinguished from the importance of belonging to a certain reference group. When both terms are included in a regression analysis, this will be the same as controlling for the individual's own, absolute hours.

Gender attitudes is an index composed of responses to the three statements "A woman should be prepared to cut down on her paid work for the sake of her family", "When jobs are scarce, men should have more right to a job than women" and "Men should take as much responsibility as women for the home and children". There were five possible responses, from "Agree strongly" to "Disagree strongly", and the responses were coded to indicate degree of egalitarianism. The index ranges from 0 to 12 where 0 indicates traditional gender attitudes and 12 indicates egalitarian gender attitudes.

A positive association between paid working hours and well-being could be caused by differences in working conditions between individuals with different working hours. *Job pressure* is therefore included as a control variable in the regression analyses. The variable consists of an index that adds the responses to three items indicating the degree to which the respondent agrees with the statements "My job requires that I work very hard", "I never seem to have enough time to get everything done in my job" and "My wage or salary depends on the amount of effort I put into my work". The index runs from 0 to 11, with 0 indicating low and 11 high job pressure.

Similarly, educational qualifications could be a confounding variable—influencing both well-being and working hours—and is therefore included as a control variable. *Educational level* is the respondent's highest level of education and includes seven standardized educational levels, from "Not completed primary education" to "Second stage of tertiary". All seven levels can be seen in Table 1. The variable is included in the original ESS data and was derived at by re-coding nationally specific educational levels into a common coding frame for nearly all countries. However, the UK educational levels could not be satisfactorily re-coded. To get around this problem, the present study utilizes educational years as a bridge between the common European categories and the educational levels "Tertiary", "Lower secondary or second stage of basic" and "Other" in the UK classification, to incorporate the UK respondents into the common European categories.[3]

A third possibility is that well-being increases with increasing hours of paid work or housework because people with poor health are not able to work long hours (what is

[3] Firstly, the UK data have one tertiary level, whereas the common European categorization has two. UK respondents are therefore coded "First stage of tertiary" if they have tertiary education and their educational years do not exceed 16 years, and "Second stage of tertiary" if they have tertiary education and have studied for 17 years or more. Secondly, a majority of the UK respondents are originally coded "Lower secondary or second stage of basic", but in the rest of Europe, respondents with more than 11 years of schooling are included in the next educational level, "Upper secondary". Therefore, when educational years exceed 11 years among UK respondents, they are moved to the level "Upper secondary". Finally, the UK data include the additional category "Other". Respondents in this category have values on educational years corresponding to the educational years among other European respondents coded "Upper secondary". Therefore, UK respondents in the "Other" category are here re-coded into the educational level "Upper secondary".

Table 1 Descriptive statistics

Variable	Percent/mean (SD)						
	All (n = 13,425)		Women (n = 7,688)		Men (n = 5,737)		
Hours paid work = 0	24.15%		39.65%		1.5%	***	
Hours paid work/week, all	30.35	(20.04)	21.45	(19.51)	43.33	(12.17)	***
Hours paid work/week, working[a]	40.01	(11.96)	35.55	(11.40)	44.00	(11.00)	***
Hours of housework/week, all	13.88	(13.83)	19.15	(14.87)	6.19	(6.93)	***
Hours of housework/week, working[a]	9.98	(9.44)	14.49	(10.35)	5.94	(6.20)	***
Deviation from reference group mean:							
Paid work (h/week)	−0.37	(14.75)	−0.62	(16.48)	−0.01	(11.75)	**
Housework (h/week)	0.10	(11.61)	0.09	(14.03)	0.12	(6.62)	
Gender attitudes, index (0–12)	7.19	(2.32)	7.14	(2.33)	7.27	(2.31)	***
Job pressure[a]	5.62	(2.15)	5.40	(2.09)	5.82	(2.19)	***
Educational level:							
Not completed primary education	5.13%		7.28%		2.01%	***	
Primary or 1st stage of basic	11.65%		14.50%		7.48%	***	
Lower secondary or 2nd stage of basic	19.92%		18.16%		22.50%	***	
Upper secondary	30.37%		29.54%		31.57%	*	
Post secondary, non-tertiary	9.28%		9.87%		8.42%	**	
1st stage of tertiary	15.66%		13.14%		19.34%	***	
2nd stage of tertiary	7.99%		7.51%		8.69%	*	
Age	42.20	(10.41)	41.56	(10.57)	43.13	(10.11)	***
Parental status:							
Youngest child aged 0–6	26.04%		26.55%		25.30%	(*)	
Youngest child aged 7–18	30.85%		30.12%		31.91%	*	
Adult child in household	14.85%		16.12%		12.99%	***	
No children in household	28.27%		27.22%		29.80%	***	
WHO-Five Well-being Index	15.19	(5.01)	14.66	(5.26)	15.96	(4.52)	***

Significance tests for gender differences indicated by stars in the *Men* column (standard deviations in parentheses)

[a] Only respondents with paid working time > 0 h/week, 5,174 women and 5,670 men

(*) $P \leq 0.10$; * $P \leq 0.05$; ** $P \leq 0.01$; *** $P \leq 0.001$

commonly knows as the 'healthy worker effect'). *Subjective general health* is therefore included, measured by the question "How is your health in general? Would you say that it is very good, good, fair, bad, or very bad?" The variable runs from 1 = very good to 5 = very bad.

Age is a continuous variable and is included as a control variable as it is correlated with well-being.

Woman takes the value 1 for female and 0 for male.

6 Results

Before we turn to the multivariate analysis, Table 1 displays some descriptive statistics. Looking first at paid working hours and housework hours, we see that among cohabiting, European women (excluding students, pensioners, unemployed and people with health problems), about 40% are not in paid employment. The corresponding number for men is 1.5%. In the sample as a whole, men perform twice as much paid work as women do, and

in the working sample, men perform 8.5 hours more than women do per week. Women, on the other hand, perform three times as much housework as men do, on average 13 h more per week. As paid work causes a larger decrease in housework hours among women than among men, the difference among working women and men is somewhat smaller, about 8.5 h/week.

The standard deviation from the reference group mean hours of paid work is larger among women than among men, and the difference between men and women is even larger for housework hours, reflecting the fact that the variation in hours of paid work and housework is larger among women. The relatively large average negative deviation from the reference group mean for paid working hours among women is caused by the large amount of homemakers and thereby short average paid working hours in some countries. Here, the paid working time of all homemakers (0 h/week) will deviate from the reference group mean by a small negative amount, which causes the European average among women to be negative rather than approximately zero.

Men appear to hold somewhat more egalitarian gender attitudes than women, but the gender difference is small and both women and men hold moderately egalitarian gender attitudes.[4]

Table 1 shows the gender gap in well-being, with women scoring 1.3 points less on the WHO-Five Well-being Index and thus displaying lower well-being than men. This gender gap corresponds to a quarter of a standard deviation on the index for the pooled sample.

Hours of paid work, housework hours and well-being in 16 of the 200 reference groups are displayed in Table 2. The examples include women and men with small children or without children in Germany, Poland, Spain, and Sweden. Among other things, Table 2 reveals the small variation in men's housework hours and the great differences between countries in the impact of small children on women's paid working hours. In Germany, the average paid working time among mothers of small children is half the paid working time of women without children. In Sweden, on the other hand, women with small children work as long hours in paid employment as women without children do, which is likely to be caused by the fact that Swedish mothers with small children seldom leave the labour market, but rather go on parental leave and then return to their former employment. These mothers have stated their normal paid working hours when they are in fact working.

6.1 Well-Being and Hours Spent Among Women and Men

To analyse the associations between well-being and absolute hours spent on paid work and housework, well-being is regressed on hours of paid work and housework controlling for age, country, job pressure, educational level and health (Table 3).

As seen in Table 3, Model 1, the well-being of women increases with increasing paid working hours. In contrast to what was expected, the association is linear, not curvilinear (adding a quadratic term renders the association insignificant, not shown). Women's well-being decreases with increasing housework hours, as was expected (Model 2). When adding paid working hours and housework hours simultaneously in Model 3, the association between paid working hours and well-being weakens somewhat (and is no longer

[4] Women in Turkey score rather low on the gender attitudes index, and if Turkish respondents are excluded, women appear to be slightly more egalitarian than men, although the gender difference is not statistically significant.

Table 2 Examples of work patterns and well-being in 16 of the 200 reference groups

	Germany				Poland				Spain				Sweden			
	Women		Men		Women		Men		Women		Men		Women		Men	
Small children (0–6 years)	Group 1		Group 2		Group 3		Group 4		Group 5		Group 6		Group 7		Group 8	
	n = 88		*n* = 72		*n* = 70		*n* = 56		*n* = 71		*n* = 60		*n* = 73		*n* = 106	
Paid work (h/week)	13.27	(17.12)	44.03	(8.34)	20.36	(21.13)	48.45	(11.00)	20.23	(20.29)	42.76	(7.78)	35.74	(10.62)	41.87	(5.57)
Housework (h/week)	20.76	(11.19)	5.65	(5.62)	20.26	(10.70)	6.15	(4.68)	28.03	(20.55)	6.10	(6.17)	12.80	(8.07)	7.27	(4.66)
WHO-Five Well-being Index	15.27	(4.18)	15.24	(4.30)	16.00	(5.22)	16.20	(4.28)	15.87	(4.62)	17.29	(3.28)	15.58	(3.39)	15.92	(3.97)
No children in household	Group 9		Group 10		Group 11		Group 12		Group 13		Group 14		Group 15		Group 16	
	n = 170		*n* = 135		*n* = 38		*n* = 33		*n* = 64		*n* = 61		*n* = 148		*n* = 135	
Paid work (h/week)	27.58	(17.32)	43.96	(8.32)	31.73	(20.69)	45.77	(7.08)	26.96	(19.69)	43.56	(12.81)	35.36	(13.24)	41.90	(5.98)
Housework (h/week)	12.10	(7.84)	4.86	(4.98)	15.65	(10.88)	6.12	(9.60)	18.85	(11.77)	6.81	(6.41)	10.20	(6.09)	6.46	(7.60)
WHO-Five Well-being Index	15.82	(4.77)	16.77	(3.51)	15.98	(4.51)	17.49	(3.08)	16.19	(4.54)	16.47	(4.76)	16.50	(4.15)	16.59	(3.97)

Women and men with small children or without children in the household in Germany, Poland, Spain, and Sweden. Means (standard deviations in parentheses)

Table 3 Women's and men's well-being and their time spent on paid work and housework

	Model 1			Model 2			Model 3		
Women (n = 7,688)									
Paid work	0.19	(0.09)	*				0.14	(0.10)	
Housework				−0.16	(0.07)	*	−0.15	(0.07)	*
Job pressure	−0.04	(0.03)		−0.01	(0.02)		−0.05	(0.03)	
Educational level	0.00	(0.05)		0.00	(0.05)		−0.01	(0.05)	
Health	−1.85	(0.08)	***	−1.85	(0.08)	***	−1.84	(0.08)	***
Age	0.02	(0.01)	***	0.02	(0.01)	***	0.02	(0.01)	***
Intercept	18.68	(0.42)	***	18.55	(0.41)	***	18.70	(0.42)	***
R^2	0.15			0.15			0.15		
Men (n = 5,737)									
Paid work	0.10	(0.11)					0.11	(0.11)	
Housework				0.06	(0.12)		0.07	(0.12)	
Job pressure	−0.03	(0.03)		−0.02	(0.03)		−0.03	(0.03)	
Educational level	−0.11	(0.04)	**	−0.11	(0.04)	**	−0.11	(0.04)	**
Health	−1.72	(0.09)	***	−1.73	(0.09)	***	−1.72	(0.09)	***
Age	0.04	(0.01)	***	0.04	(0.01)	***	0.04	(0.01)	***
Intercept	18.46	(0.41)	***	18.50	(0.41)	***	18.49	(0.41)	***
R^2	0.13			0.13			0.13		

OLS regression, country fixed effects (standard errors in parentheses)

(*) $P \leq 0.10$; * $P \leq 0.05$; ** $P \leq 0.01$; *** $P \leq 0.001$

significant at the 5%-level). Hence, one reason why women with longer paid working hours have higher well-being appears to be that they do less housework than women with shorter paid working hours do.

As seen in the lower panel of Table 3, neither paid working time nor time spent on housework is associated with men's well-being. One reason may be the small variation in paid working hours and, even more, housework hours among men.

Hypothesis 1, that there should be a positive but curvilinear association between paid working hours and well-being, gains weak support among women, and Hypothesis 2, that housework is negatively associated with well-being, gains full support among women. Hypothesis 1 stated that the association between paid work and well-being could be weaker among men than among women. This proves to be true also for housework, and the associations are not only weaker among men, but nonexistent.

6.2 The Gender Difference in Well-Being

Table 4 shows the result when regressing well-being on paid working hours and housework hours in the pooled sample of women and men, controlling for sex. Men are the reference category and hence the coefficient for the variable *woman* shows the negative effect on well-being of being a woman compared to being a man. According to Model 1, women score half a point lower on the WHO-Five Well-being Index than men do in a country fixed-effects model with controls for age, job pressure, educational level, and health. Inclusion of either paid working hours (Model 2) or housework hours (Model 3) decreases the gender difference in well-being by approximately 20%. Hence, both paid working hours and housework hours contribute to the gender difference in well-being. When both paid work and housework are added in Model 4, the gender difference in well-being is reduced by 32%. This lends support to Hypothesis 3, stating that the European

Table 4 The gender difference in well-being as related to time spent on paid work and housework

	Model 1			Model 2			Model 3			Model 4		
Woman	−0.51	(0.08)	***	−0.42	(0.09)	***	−0.41	(0.09)	***	−0.35	(0.10)	***
Paid work				0.17	(0.07)	**				0.14	(0.07)	*
Housework							−0.14	(0.06)	*	−0.12	(0.06)	*
Job pressure	0.00	(0.02)		−0.04	(0.02)	(*)	−0.02	(0.02)		−0.04	(0.02)	*
Educational level	−0.04	(0.03)		−0.04	(0.03)		−0.04	(0.03)		−0.05	(0.03)	
Health	−1.81	(0.06)	***	−1.81	(0.06)	***	−1.81	(0.06)	***	−1.80	(0.06)	***
Age	0.03	(0.00)	***	0.03	(0.00)	***	0.03	(0.00)	***	0.03	(0.00)	***
Intercept	18.78	(0.29)	***	18.86	(0.29)	***	18.75	(0.29)	***	18.82	(0.29)	***
R^2	0.15			0.15			0.15			0.15		

OLS regression, country fixed effects, $n = 13{,}425$ (standard errors in parentheses)

(*) $P \leq 0.10$; * $P \leq 0.05$; ** $P \leq 0.01$; *** $P \leq 0.001$

gender difference in well-being is partly accounted for by gender differences in paid working hours and housework hours.

6.3 Gender Attitudes

The following analysis considers the possible modifying effect of the respondent's gender attitudes on the associations between well-being and hours spent on paid work and housework among women and men (Table 5).

Table 5, Model 1 includes only gender attitudes and control variables and shows that women's well-being decreases the more egalitarian their gender attitudes are, while men's well-being increases. This does not change when hours of paid work and housework are taken into account in Model 2. In Model 3, interactions between gender attitudes and hours of paid work and housework are included, but none is of any substantial or statistical significance. Hence, hours of paid work and housework are associated with well-being in the same way irrespective of gender attitudes and this goes for men as well as for women. Hypothesis 4, stating that paid working time should be more positively and hours of housework more negatively associated with women's well-being the more egalitarian their gender attitudes are, is hence not supported. Neither is the statement in Hypothesis 4 that paid working hours should be less positively and hours of housework less negatively associated with well-being among men the more egalitarian their gender attitudes are.

6.4 Social Comparison of Paid and Unpaid Work

To get at the importance of social comparison of paid work and housework, the individual's paid working hours and housework hours are compared to the mean hours spent by the individual's reference group, and the reference group mean is, in turn, compared to the mean hours spent by all European respondents of the same sex as the individual. Well-being is regressed on these continuous variables of deviations from the mean and the results are shown in Table 6.

Social comparison of paid working hours and housework hours are first analysed separately. Model 1 shows no association between well-being and the difference between a woman's own paid working hours and the mean paid working hours in her reference group. However, there is a positive association between well-being and the difference between the mean paid working hours in the reference group and the overall mean hours among European women. That is, belonging to a group of women who usually work longer hours

Table 5 Well-being, time spent on paid work and housework and gender attitudes

	Model 1			Model 2			Model 3		
Women (n = 7,688)									
Gender attitudes	−0.10	(0.03)	***	−0.11	(0.03)	***	−0.10	(0.03)	**
Paid work				0.19	(0.10)	(*)	0.06	(0.25)	
Housework				−0.16	(0.07)	*	−0.04	(0.21)	
Attitudes*paid work							0.02	(0.03)	
Attitudes*housework							−0.02	(0.03)	
Job pressure	0.01	(0.02)		−0.05	(0.03)		−0.05	(0.03)	
Educational level	0.04	(0.05)		0.03	(0.05)		0.02	(0.05)	
Health	−1.86	(0.08)	***	−1.85	(0.08)	***	−1.85	(0.08)	***
Age	0.02	(0.01)	***	0.02	(0.01)	***	0.02	(0.01)	***
Intercept	19.24	(0.47)	***	1 9.66	(0.50)	***	1 9.48	(0.51)	***
R^2	0.15			0.16			0.16		
Men (n = 5,737)									
Gender attitudes	0.08	(0.03)	**	0.08	(0.03)	**	0.06	(0.05)	
Paid work				0.11	(0.11)		−0.12	(0.34)	
Housework				0.05	(0.12)		0.11	(0.39)	
Attitudes*paid work							0.03	(0.04)	
Attitudes*housework							−0.01	(0.05)	
Job pressure	−0.02	(0.03)		−0.03	(0.03)		−0.03	(0.03)	
Educational level	−0.14	(0.04)	***	−0.14	(0.04)	***	−0.14	(0.04)	***
Health	−1.72	(0.09)	***	−1.72	(0.09)	***	−1.72	(0.09)	***
Age	0.04	(0.01)	***	0.04	(0.01)	***	0.04	(0.01)	***
Intercept	17.73	(0.50)	***	17.73	(0.51)	***	17.91	(0.57)	***
R^2	0.14			0.14			0.14		

OLS regression, country fixed effects (standard errors in parentheses)

(*) $P \leq 0.10$; * $P \leq 0.05$; ** $P \leq 0.01$; *** $P \leq 0.001$

in paid work is associated with higher well-being than is belonging to a group who usually works shorter hours.

Although the association is only weakly significant, women's well-being has a tendency to decrease the longer their housework hours are compared to their reference group mean. The association is linear, meaning that among women with housework hours shorter than the reference group mean, well-being decreases with decreasing distance to the reference group mean, whereas for women with housework hours longer than the reference group mean, well-being decreases with increasing distance to the mean. Belonging to a group of women who usually spends a great deal of time on housework is associated with lower well-being.

Adding paid working hours and housework hours simultaneously, that is, looking at social comparison of paid working hours controlling for the individuals absolute housework hours and vice versa, changes this picture somewhat (Model 3). Now, only housework hours are related to women's well-being, and the coefficient for the difference between the reference group mean paid working hours and the European mean paid working hours disappears entirely. That is, the positive association between well-being and belonging to a group of women who usually work longer hours in paid employment is accounted for by the fact that these women do less housework than do women who belong to groups who usually work shorter hours in paid employment.

The story for men is quite different and quickly told: there are no associations between social comparison of paid working hours or housework hours and men's well-being. One reason could be that the small variation in paid working hours and housework hours among men implies that men experience less deviation from their reference group mean than women do.

Table 6 Well-being and social comparison of work

	Model 1			Model 2			Model 3		
Women (n = 7,688)									
Deviation, paid work									
Individual versus reference group	0.15	(0.10)					0.10	(0.10)	
Reference group versus all women	0.51	(0.22)	*				0.05	(0.30)	
Deviation, housework									
Individual versus reference group				−0.13	(0.07)	(*)	−0.12	(0.07)	(*)
Reference group versus all women				−0.86	(0.27)	**	−0.85	(0.38)	*
Job pressure	−0.04	(0.03)		−0.02	(0.02)		−0.04	(0.03)	
Educational level	0.00	(0.05)		−0.01	(0.05)		−0.01	(0.05)	
Health	−1.85	(0.08)	***	−1.85	(0.08)	***	−1.85	(0.08)	***
Age	0.02	(0.01)	***	0.02	(0.01)	**	0.02	(0.01)	**
Intercept	18.51	(0.42)	***	18.34	(0.41)	***	18.42	(0.42)	***
R^2	0.15			0.15			0.15		
Men (n = 5,737)									
Deviation, paid work									
Individual versus reference group	0.10	(0.11)					0.10	(0.11)	
Reference group versus all women	0.44	(0.69)					0.37	(0.69)	
Deviation, housework									
Individual versus reference group				0.08	(0.12)		0.09	(0.12)	
Reference group versus all women				−1.20	(0.79)		−1.16	(0.78)	
Job pressure	−0.03	(0.03)		−0.02	(0.03)		−0.03	(0.03)	
Educational level	−0.11	(0.04)	**	−0.11	(0.04)	*	−0.11	(0.04)	**
Health	−1.72	(0.09)	***	−1.73	(0.09)	***	−1.73	(0.09)	***
Age	0.04	(0.01)	***	0.04	(0.01)	***	0.04	(0.01)	***
Intercept	18.53	(0.41)	***	18.57	(0.41)	***	18.62	(0.41)	***
R^2	0.13			0.13			0.13		

OLS regression, country fixed effects (standard errors in parentheses)

(*) $P \leq 0.10$; * $P \leq 0.05$; ** $P \leq 0.01$; *** $P \leq 0.001$

Consequently, there is no support for Hypothesis 5, that well-being is highest among individuals with a common time spent on paid work or housework compared to similar individuals. Women rather seem to increase their well-being the shorter their housework hours are compared to the common hours spent in their reference group. However, the actual number of hours spent on housework appears to be more important than social comparison of housework hours.

7 Summary and Conclusions

This study finds that European women have higher well-being the longer their paid working hours and the shorter their housework hours are. These associations exist among egalitarian and traditional women alike. Men's well-being is, on the other hand, unrelated to the time they spend on paid work and housework. The associations between women's well-being and hours of paid work and housework are quite important for the gender difference in well-being that exists in Europe. Time spent on paid work and housework together account for about a third of this gender difference, and hence, differences between women's and men's paid working hours and housework hours are one reason why European women have lower well-being than European men have.

None of the two social factors studied here proved to be very important to well-being and its associations with paid work and housework. Gender attitudes are indeed associated with well-being, negatively among women and positively among men, but they do not interact with hours of paid work or housework in their possible influences on well-being. Men's

well-being appears to be unaffected by social comparison of hours spent on paid work and housework, while women's well-being has only a tendency to decrease the longer their housework hours are compared to the common hours spent among women in the same country and family situation. Hence, there is a possibility that women benefit from being able to do as little housework as possible compared to similar women, and not, as predicted by the theory of social comparison, from spending a common time on housework. However, the main conclusion is that the absolute number of hours spent on housework is more important for well-being than is the relative housework hours compared to a reference group.

There are some limitations relating to the data that may influence these results. First, people may compare their own hours of paid work and housework first and foremost to the hours spent by a smaller group of people they know or know of, rather than to the average hours spent by all individuals of their own sex and family situation in their country. The present study has access to the latter information, but not to the former. However, it is likely that the smaller reference group is composed of people of the same sex and in a similar family situation as the comparing individual, i.e., smaller reference groups of people that the respondents know or know of would probably resemble the larger reference groups as they are defined here. If people do indeed compare their paid and unpaid hours to what they perceive to be the common hours spent in the larger group rather than the smaller one, they may not be very well informed about the actual average weekly hours in the larger group, which is what is analysed in the present study. It is also possible that people do not compare themselves mainly to others of the same sex or family situation. For example, they may compare themselves to people of their own age irrespective of family situation or to people with a similar level of education. The definitions chosen for the reference groups in the present study may be the reason the results run contrary to the predictions of the theory of social comparison. However, some relevant factors that could not be included in the definitions of reference groups, namely educational level and age, are controlled for in the regression analyses.

Second, the data do not include any direct information about weekly hours spent on housework. Instead, the measure is estimated based on the total number of hours spent on housework in the household and the share of these hours spent by the respondent. This renders the measure imprecise, which may be one reason why there is only a weak association between social comparison of housework hours and well-being. The measure is sufficient, however, to show a significant association between absolute housework hours and well-being.

To summarize, while European men's well-being seems to be unaffected by hours of paid work and housework, women have higher well-being the more paid work and the less housework they do. The differences in hours spent on paid work and housework among women and men are one important reason why European women have lower well-being than European men have; it accounts for a third of this gender difference.

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