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1 **Gendered Shares of the Family Rush Hour in Fulltime Dual Earner Families. A Cross National**
2 **Comparison**

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6
7 **Abstract**

8 There are recognised cross-national differences in the average amount and gender division of
9 paid work and unpaid domestic work and care, but country differences between men and women in
10 the timing and intensity of this daily workload remain under-investigated. Using couple-level time-
11 use data from Australia, the UK, Finland, Korea and Spain (n=1,838), we probe cross-national
12 differences in gendered time availability and constraint, focusing particularly on the early evening
13 ‘family rush hour’. We identify daily time periods during which one partner in a fulltime dual-earner
14 parent couple performs routine time-critical household labor and care, whilst the other partner is
15 simultaneously at leisure. In all five countries fathers in dual fulltime earner couples are more likely
16 than mothers to be at leisure whilst their partner does unpaid work, and this disparity occurs most in
17 the early evening. Multivariate analyses reveal the unpaid work-leisure gap is widest in Korea and
18 narrowest in the UK, confounding expectations that social democratic Finland would be most
19 equitable in this measure.

20
21 *Keywords:* Time-use; Gender Division of Labour; Family Rush Hour; Gender & Family
22
23

Gendered Shares of the Family Rush Hour in Fulltime Dual Earner Families. A Cross National Comparison

1 Introduction

Dual-earner households with children must combine the demands of family life with those of paid work. It was expected that as more women entered the paid labour market, gender differences in shares of paid work and unpaid work would diminish (Bergmann, 2005), but the increased labour market participation of women has not been matched by equivalent growth in men's domestic work (Fisher, Egerton, Gershuny, & Robinson, 2007; Sayer, 2016). Women generally do a much larger share of unpaid work than their male partners, and men are more likely to arrange family life around paid work and women to arrange paid work around family life, even in dual earner families in which both partners work fulltime (Monna & Gauthier, 2008). Being full time employed but also disproportionately responsible for unpaid work heightens subjective time stress (Craig & Brown, 2017). A central reason for this is that both paid work and some housework and childcare tasks have temporal imperatives, not only in amount, but also in timing.

Whilst seldom the direct focus of analysis, domestic scheduling matters because it has implications for men and women's work prospects, leisure time, and subjective wellbeing (Shaw, 2008). Workplaces have been described as 'greedy institutions' (Sullivan, 2014) with the 'ideal worker norm' reflecting an expectation that employees prioritise their work over other activities (Drago, 2007; Williams, 2010). Yet family duties can be similarly demanding, and also generate inflexible daily deadlines (Blair-Loy, 2003; Sullivan, 2014). Many household and childcare tasks are routine in both recurrence and timing. They bring schedule constraint because they not only have to be done every day, but also at the same time of every day. For example, someone must pick up the children from day care or school, cook dinner, help children with homework, bath and dress them for the night and put them to bed at regular times. These activities generally occur in the early evening, and for parents employed standard fulltime hours, involve concentrating unpaid work activities into a narrow time window at the end of their working day. The urgency of the tasks, for example leaving work and getting home in time to deal smoothly with children's fatigue and hunger, is an additional stressor. Thus, the early evening becomes a highly time-pressured and demanding period of unpaid work, that has been labelled the 'family rush hour' (Bittman & Wajcman, 2000).

Yet little research has explicitly calculated gender differences in who participates in this daily period of time-crunch. Inferences about the temporal constraints of care upon mothers and fathers have been derived from the type of activity performed, such as cooking dinner, or the activity context, such as the presence of children (Craig, 2006). In a new contribution, this paper addresses the scheduling aspect of work and family life directly, by specifically examining timing, and by looking at how the most time-pressured daily period of family care is shared between partners. Using couple-level data, it focuses on fulltime dual earner couples with children, because these households are known to be the most time-poor (Jacobs & Gerson, 2004). Specifically, it examines whether one partner in a fulltime dual-earner parent couple performs routine time-critical household labor and care in the early evening, whilst the other partner is simultaneously at leisure. That is, we see being at leisure as indicating the opportunity to participate in unpaid work alongside one's partner if one chose. If fulltime working mothers shoulder the responsibility for the family rush hour alone rather than sharing it with fathers, it could be a contributing factor in the rising incidence of working mothers with young children suffering anxiety and stress (Buddelmeyer, Hamermesh, & Wooden, 2018; National Women's Health Survey, 2019; Sintas, de Francisco, & Álvarez, 2015).

We take a cross-national perspective, because gender divisions of labour are influenced by macro-level factors which influence time demands upon mothers and fathers (Crompton, 2006;

70 Gornick & Meyers, 2003; Hook, 2010; Lewis, 2009). We draw on data from five countries from
71 different welfare regimes, with varying social policies and norms in relation to gender equity in work
72 and family participation. Established welfare regime categories are social democratic (exemplified
73 by Scandinavia); corporatist (exemplified by Western Europe), familialist (exemplified by Southern
74 Europe); and market oriented/liberal (exemplified by the English speaking countries) (Arts &
75 Gelissen, 2010). North Asian countries exhibit both market-oriented and familialist features, so can
76 be classified as liberal-familialist (Kwon, 2005; Ochiai, 2009). Here the regimes are represented by
77 Australia and the UK (*liberal*), Finland (*social democratic*), Spain (*familialist*) and Korea (*liberal-*
78 *familialist*). Finland and other social democratic countries in Scandinavia have been found to have a
79 more gender-equal distribution of paid work and the unpaid work of childcare than either liberal or
80 familialist countries, attributed to multiple factors including lower average employment hours, more
81 generous parental leaves and more readily-available childcare services (Altintas & Sullivan, 2017;
82 Gornick & Meyers, 2003; Hook, 2006; Kwon, 2005; Lee, 2005; Ochiai, 2009). However, prior
83 research suggests that gender differences in the *type* of childcare provided are less variant cross-
84 nationally than the *amount* of childcare provided. For example, across countries, fathers are less
85 likely than mothers to perform care alone in sole charge of children, to organise and manage family
86 leisure time, or to do the bulk of the daily routine physical care (Craig & Mullan, 2011, 2013). Here
87 we build on these enquiries to compare care *scheduling*, and whether the family rush hour is shared
88 more equitably in social democratic Finland than in the other countries.

89 2 Theoretical background

90 We first acknowledge that within countries, household and individual-level factors also shape gender
91 divisions of labour. Theoretical debates have mainly focused on three main explanations for gender
92 disparities in paid and unpaid work: gendered attitudes/ideology and role performance, marital
93 bargaining on the basis of relative resources, and time availability (Aassve, Fuochi, & Mencarini,
94 2014). The role performance approach argues that gender is constructed, recreated and reinforced
95 through everyday interaction (West & Zimmerman, 1987, 2009). How men and women ‘do’, or
96 ‘undo’, gender is underpinned by their own gender ideology or by the accountability they feel for
97 behaving in ways consistent with prevailing cultural beliefs about masculinity and femininity
98 (Connell, 2009; West & Zimmerman, 2009). This suggests women do more housework and childcare
99 because they feel accountable for these tasks as a wife and mother, whereas they are not as central to
100 men’s self-conceptualisation as a good husband and father (Bianchi & Milkie, 2010). Also relevant is
101 that ideals of masculinity seem more resistant to change than ideals of femininity, perhaps because in
102 most respects, men stand to lose while women stand to gain (Chafetz, 2004; Connell, 2009). Gender
103 ideology can be held individually, and also manifest in shared social norms and attitudes (Crompton,
104 2006; Hook, 2010; Lewis, 2009). Gender attitudes differ across the countries in this study (see
105 below), and we expect this to underpin cross-national differences in gendered participation in the
106 family rush hour (see below).

107 The relative resources approach is ostensibly gender-neutral and suggests that household
108 bargaining power arises from one partner having more personal resources than the other (Manser &
109 Brown, 1980). For example, higher job status, education or income translate to more power, which
110 can be used to avoid domestic chores. A comparative advantage in doing either paid work (usually
111 men) or unpaid work (usually women) leads to gender specialisation, which maximizes overall
112 household utility (Becker, 1965). Feminist scholarship has highlighted serious flaws in this
113 argument, including that it fails to explain why gendered divisions of housework persist despite
114 women gaining tertiary degrees and entering the labour market, thus ceasing to specialise solely in
115 home duties (Folbre, 2004; Nelson, 2006). Also, research has found that men with higher education
116 and professional jobs are likely to partner with women of similar status, to have more liberal gender

117 attitudes and wish to be involved fathers, which may also minimise the relevance of relative
118 resources (England & Srivastava, 2013). In this study we capture individual resources through job
119 status and educational achievement (see below) and control for the possibility they have an
120 independent effect on gendered participation in the family rush hour.

121 The time availability approach relates time in domestic chores to time spent in the labour
122 market (Presser, 1994). Coverman (1985) hypothesized that “domestic hours are a function of
123 *demands* on husbands to fulfil domestic responsibilities along with their *capability to respond* to
124 these demands” (p. 84, original italics). She argued that men’s response capacity depends on the
125 hours they spend in paid work. A body of literature has tested this hypothesis. For example, Aassve
126 et al. (2014) analysed data from nine European countries and found that “fulltime employment
127 among men brings about lower gender equality in household sharing” (p. 1070). They also found that
128 women’s fulltime work is associated with them doing less household work. However, as more
129 women now work fulltime, the time availability explanation is inadequate to explain gender shares
130 because it assumes one partner can trade off paid work against the other’s housework. This is not as
131 possible for dual earners as for sole breadwinner or full-time/part time worker households
132 (Crompton, 2006; Gornick & Meyers, 2003).

133 Of course, time availability may still matter if fulltime dual-earner couples’ employment
134 schedules are desynchronised. Presser (1994) criticised the time availability approach on the grounds
135 that focus should not be entirely on the *number* of hours employed but also on the *timing* of
136 employment, that is, *which* hours are worked. She showed that in US dual-earner families,
137 desynchronised employment schedules can make women less available to do certain time-critical
138 household chores (e.g. cooking dinner, putting children to bed) which in turn requires men to do
139 these tasks (Presser, 2005). In Australia, also, women working nonstandard schedules that mean they
140 are absent while men are at home, is a much more reliable predictor that men will do routine
141 childcare tasks than women’s work hours per se (Craig and Brown 2017). While nonstandard work
142 schedules can be imposed by employers (Fenwick & Tausig, 2001), some families may choose them
143 specifically because they facilitate one partner being available for home duties whilst the other does
144 paid work (Presser, 2005).

145 Scheduling is also relevant to the time availability argument in dual earner parent couples
146 who both work fulltime standard hours. In principle, if couples’ employment schedules are broadly
147 synchronised, they could also have gender-similar participation in time-critical periods of unpaid
148 work including the family rush hour. If both partners have left their paid work for the day, they
149 theoretically both have time ‘available’ to pitch in with the unpaid work of the family rush hour if
150 they choose to. This matters because if mothers meet the constraining demands of domestic temporal
151 imperatives alone during this time-critical period, whilst their partner is doing neither paid nor
152 unpaid work, this would indicate an unpaid work-leisure gap wherein fathers enjoy an advantage in
153 daily leisure scheduling - the opportunity to relax and unwind at the end of the working day - whilst
154 their partner is performing unpaid work *at the same time*. This paper investigates this joint couple
155 scheduling aspect of time availability and how it compares cross-nationally for the first time.

156 **2.1 Country context**

157 As noted above we analyse data from Australia and the UK, Spain, Korea and Finland. The
158 countries represent four welfare regimes: *liberal*, *familialist*, *liberal-familialist* and *social democratic*
159 respectively (see Arts & Gelissen, 2002, 2010; Ochiai, 2009 for discussion of regime typologies and
160 gender-relevant features). Table 1 indicates how the five countries compare on social gender
161 attitudes and workforce participation patterns, contextual factors which reflect and shape the
162 gendered division of labour and the timing of paid and unpaid work in each country.

Table 1. Cross-national indicators of gender attitudes and workforce participation patterns (%)

	Korea	Spain	Australia	UK	Finland
Gender attitudes					
Attitude to maternal childcare: “when a woman works children suffer” (strongly agree/agree) ^{1,a}	69.3	52.7	31.1	30.6	21.1
Attitude to work: “Both the man and woman should contribute to the household income” (strongly agree/agree) ^{1,a}	69.5	93.2	52.5	62.9	78.2
Workforce participation patterns					
Male employment rates aged 15-64 ²	75.9	69.0	78.7	79.6	73.7
Percentage of men who usually work 40+ hours ²	85.3	77.5	57.8	61.6	53.5
Female employment rates aged 15-64 ²	57.2	57.8	69.2	70.5	70.6
Female part-time employment (2009) ²	18.2	21.6	37.5	36.4	17.8
Fulltime dual earner couples with children ²	30.1	34.4	23.3	31.3	55.7
% of employed working evening/night on weekday (7pm-7am) ³					
<i>Men</i>	28.3	27.7	19.8	15.2	12.0
<i>Women</i>	10.0	20.8	24.6	11.7	8.1

164 ¹International Social Survey Programme (ISSP), latest data available, ²Organisation for Economic Co-operation and
 165 Development (OECD), latest data available; ³Authors’ calculations on countries’ time use surveys.

166 ^aSpain uses a 4-point Likert scale (strongly agree/agree/disagree/strongly disagree) whereas all other countries use a 5-
 167 point Likert scale including a neutral category.

168 First, behaviour and ideas about appropriate gender roles are mediated through cultural norms
 169 and values (Duncan, Edwards, Reynolds, & Alldred, 2003). International Social Survey Programme
 170 (ISSP) questions capturing attitudes to maternal childcare provision and dual earning indicate that of
 171 the five countries, Finland has most consistently gender-equal social attitudes across the two
 172 measures. Spanish respondents are progressive on dual earning but more conservative on childcare.
 173 Korea, similarly, displays contrasting views on the two indicators, including the least gender-equal
 174 attitude to childcare. The UK and Australia are moderate on both measures (see first part of Table 1).

175 Second, differences in national time availability and daily scheduling are implied by
 176 contrasting workforce participation patterns (see second part of Table 1). Korea and Spain have high
 177 percentages of employed men with average workweeks over 40 hours (85% and 77.5% respectively).
 178 This could constrain their domestic participation more than men in the other countries, particularly
 179 Finland, where only 58% of men work longer than 40 hours. Conversely, the average incidence of
 180 female part time work is low in Finland (alongside Korea and Spain) and much higher in Australia
 181 and the UK, where women likely thus have more time available for domestic duties. Furthermore, in
 182 57% of couples with children in Finland, both partners are fulltime employed, substantially higher
 183 than elsewhere (range 34.4% in Spain to 22.9% in Australia). Taken together, these average
 184 workforce participation patterns suggest that couples have most similar work schedules in Finland,
 185 leading us to expect that care timing would also be most gender-similar there.

186 No integrated comparative indicators of the average incidence of nonstandard work schedules
 187 across the five countries are available. However, previous research leads us to expect cross-national
 188 variation. For example, Presser (2005, p. 214) argued that in the USA ‘nonstandard work schedules
 189 are [ubiquitous and] no longer that nonstandard’ (p. 214). According to the European Working
 190 Conditions Survey (EWCS) approximately half of European workers work evenings or weekends at
 191 least once a month (Eurofond, 2012). Labour Force Survey (LFS) figures suggest that 15 percent of
 192 European workers usually work in the evening and 10 percent or more usually work weekends

193 (Presser, Gornick, & Parashar, 2008). Regarding daily scheduling, our own calculations using the
194 time use surveys of the countries in this paper indicate that on weekdays 28.3% of Korean men and
195 24.6% of Korean women work outside the hours of 7am to 7pm (see Table 1). Weekday
196 evening/night work is also quite common for Spanish workers (27.7% of male and 20.8% of female
197 workers). It is less so for male and female workers in Australia (19.8% and 10.0%), Finland (15.2%
198 and 11.7%) and the UK (12.0% and 8.1%). These patterns do not necessarily reflect shift work, since
199 they could indicate long working days consistent with the longer average male work hours in Korea
200 and Spain noted above. In any event, more employment occurring in the evening suggests fewer
201 workers would be available to participate in the family rush hour in Korea and Spain than in the
202 other three countries. Overall, evening/night work on weekdays is more common in male workers
203 than female workers in all countries.

204 **2.2 Expectations**

205 Overall, we expect to find that women are more likely to perform unpaid work during the family rush
206 hour while their male partner is at leisure than vice versa. However, our main focus is comparative,
207 and we expect the size of this gender difference to vary cross-nationally. Specifically, we expect to
208 find most gender-equal participation in the family rush hour (indicated by the smallest unpaid work-
209 leisure gap) in Finland, given the shorter worktime regime, egalitarian gender attitudes and more
210 equal labour market participation amongst couples in that country shown in Table 1. We expect that
211 the unpaid work-leisure gap found during the family rush hour will be most gendered in Spain and
212 Korea, because gender attitudes are most traditional in those countries and average male paid work
213 hours are longest there. We expect the UK and Australia to fall between these two poles.

214 **3 Method**

215 **3.1 Data**

216 To test these expectations, we analyse nationally representative time-use surveys (TUS)
217 which collected information from households in Australia, Spain, Korea, the UK and Finland, using
218 time-diaries in which respondents recorded all their activities over the course of the day. The surveys
219 are collected separately by the national statistical institutes of each country (except in the UK, where
220 it was undertaken by an independent social research agency). The surveys all draw data from
221 probability samples of households (or individuals) from the population register or national census
222 (see HETUS guidelines from EUROSTAT, 2009).¹ The results were made available to the research
223 community as confidentialised unit records (CURFs). Diaries covered a randomly assigned weekday
224 and weekend day in the UK, Korea and Finland, a randomly assigned day of the week in Spain, and
225 two consecutive days with a randomly assigned starting day in Australia. Fieldwork periods ran for

¹ Australia – Australian Bureau of Statistics (ABS)

[https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3414.0main+features262011%20\(Edition%202\);](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3414.0main+features262011%20(Edition%202);)

Spain – Instituto Nacional de Estadística (INE)

https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176815&menu=resultados&idp=1254735976608#!tabs-1254736194826;

Korea – Statistics Korea (KOSTAT)

<http://kostat.go.kr/portal/eng/pressReleases/11/6/index.board?bmode=read&bSeq=&aSeq=273283&pageNo=1&rowNum=10&navCount=10&currPg=&searchInfo=&sTarget=title&sTxt=>

The UK – NatCen Social Research and deposited by the Centre for Time Use Research (CTUR) at the University of Oxford <https://www.timeuse.org/node/10833>;

Finland – Statistics Finland https://www.tilastokeskus.fi/meta/til/akay_en.html.

226 at least one year to account for seasonality.

227 To investigate the timing of the workload of partners who are subject to similar temporal
228 constraints, from each country's CURF we select heterosexual couples with at least one child aged
229 under 15 in which both partners are employed fulltime (>34 hours per week). We are unable to
230 include same-sex couples in the sample because this information is not collected across the surveys.
231 Sample sizes (number of couples) are Australia n=179, Spain n=381, Korea n=945, the UK n=161,
232 Finland n=172. Because employment and childcare demands differ over the week and time is
233 particularly tight on weekdays, creating the family rush hour, results for Saturdays and Sundays are
234 not presented (but are noted in the text and are available upon request).

235 3.2 Measures

236 *Paid work* is defined as all primary activities recorded in relation to respondents'
237 employment, including breaks at work, time spent at work but not working, work-related training,
238 and travel to and from work.

239 *Unpaid work* is defined as all activities that relate to household upkeep and maintenance,
240 household administration and management, physical childcare, passive childcare, care for other
241 family members living in the household, and travel for any of these activities. Many of these
242 activities are routine, urgent, or time-constrained, but others are more intermittent or can be flexibly
243 scheduled (e.g. doing household finance, cleaning the yard). Therefore, as a subset of unpaid work,
244 we measure time-critical *routine unpaid work*.

245 *Non-work* includes all time that is not devoted to paid or unpaid work. It includes leisure,
246 socialising, sleep and personal care. Some of these activities are motivated by necessity (i.e. eating,
247 sleeping, showering), whereas others more reflect preferences and autonomy over one's time. So as a
248 subset of non-work, we measure *leisure*, defined as time spent on socialising, entertainment, culture,
249 events, sports, gaming, reading, watching TV, hobbies, and leisure related travel.

250 The TUS yield data on the time allocation of both partners at the same day(s) of the week in
251 sequences of 10 minutes. Using this couple data, we calculated the *unpaid work-leisure gap* by
252 identifying time intervals during which one partner was performing routine time-critical unpaid work
253 while their partner was simultaneously at leisure.

254 Comparing these surveys cross-nationally to create these measures involves detailed
255 harmonisation of each country's time use codes (see Table A1 for detailed coding of routine unpaid
256 work in each of the countries). Due to cross national differences in the accuracy and quality of
257 recording secondary activities, they are not included in the calculations.

258 3.3 Analysis plan

259 First, to complement the country context information above, we present an overview of total
260 paid and unpaid workload, and its composition by gender, in each country. Since partners' time
261 allocation is not independent (e.g. if one picks up the kids, the other does not have to) we use paired
262 sample t-tests to test significance. Second, we focus on the time one partner spends on routine time-
263 critical unpaid work while the other partner is at leisure. To understand scheduling, we plot the
264 timing of this unpaid work-leisure gap over the day. Third, we investigate country differences in the
265 size of the unpaid work-leisure gap using linear regression analysis. Our key independent variable is
266 country. We control for individual factors which may affect household bargaining through relative
267 resources; education of each partner (yes/no tertiary degree), and professional job status of each

268 partner (yes/no). As indicators of scheduling and time availability we enter whether or not each
 269 partner worked on nonstandard hours (outside 7am and 7pm) on the diary day (yes/no), and the
 270 length of the working week for both partners (34-39 or 40+ hours per week). It is a limitation of the
 271 data that we have no measures of individual gender attitudes so cannot include them in the model,
 272 but social gender attitudes are part of the country variation as discussed above. We control household
 273 variables; age of each partner (yes/no less or equal to 45 years), the number of children under 15
 274 years in the household (ranging from 1 to 5 children) and household income (in equivalised income
 275 deciles). We tested interactions of all the independent variables with country, and report all
 276 significant results. Sample characteristics on the measures are given in Table 2.

277 **Table 2.** Sample characteristics

		Korea	Spain	Australia	UK	Finland
Couples (n)		945	381	179	161	172
Partners' characteristics		%	%	%	%	%
Age ≤ 45 years	Male partner	75.4	69.6	71.5	73.3	69.8
	Female partner	78.2	83.2	78.2	85.7	82.0
Tertiary degree	Male partner	34.9	45.7	37.4	50.3	30.8
	Female partner	23.5	56.4	52.0	64.4	41.9
Length of working week	Male partner 35-39 hrs	1.0	20.7	19.0	29.8	31.4
	Male partner 40+ hrs	99.0	79.2	71.0	70.2	68.6
	Female partner 35-39 hrs	35.7	80.6	59.2	78.3	83.1
	Female partner 40+ hrs	64.3	19.4	40.8	21.7	16.9
Professional job status	Male partner	16.7	40.9	20.1	37.9	36.0
	Female partner	22.8	58.3	33.5	46.5	54.1
Worked outside 7am-7pm on diary day	Male partner	69.3	57.0	54.2	41.0	47.7
	Female partner	46.7	35.7	22.3	20.5	29.1
Household characteristics		mean	mean	mean	mean	mean
Number of children under 15 years		1.6	1.4	1.8	1.8	1.7
Household income in equivalized income deciles		7.3	8.0	6.9	6.6	7.1

278

279

4 Results

280

4.1 Cross-national paid and unpaid workload

281

282 The total paid and unpaid weekday workload of fulltime employed men in dual earner
 283 families with at least one child under 15 years is highest in Australia, followed in order by Spain, the
 284 UK, Finland and Korea (Table 3). The total paid and unpaid workload of women in the same work
 285 and family situation is highest in Australia, followed by Spain, Korea, and the UK. It is lowest in
 286 Finland. In the two liberal countries (UK and Australia) and social democratic Finland, partners'
 287 total weekday workload does not significantly differ by gender. This is consistent with prior research
 288 finding that, in many countries, total workloads are similar for men and women notwithstanding
 289 gender divisions in paid and unpaid work (Burda, Hamermesh, & Weil, 2013; Craig & Mullan, 2010;
 290 Gershuny & Sullivan, 2003). However, conversely, in liberal-familialist Korea and familialist Spain,
 fulltime employed mothers have much higher workloads than fulltime employed fathers (1.5 hours

291 and 0.7 hours per day respectively). In all countries women's workload includes a higher proportion
 292 of unpaid work than men's workload. The difference ranges from a low of 1.3 hours per weekday in
 293 Finland to a high of 2.6 hours per weekday in Korea (due to men's very low contribution there).
 294 Thus, although the difference is still highly significant and substantial in Finland, it is lowest there
 295 because Finnish men do most unpaid work (supporting the social democratic model).. The situation
 296 in Korea, which combines liberal and familial institutional features, is harshest for women, because
 297 they do high average paid work as well as much more unpaid work than men (Table 3).

298 **Table 3.** Cross-national comparison of workload amount and composition of fulltime employed men
 299 and women in dual earner households with child(ren) in hours per weekday [mean (st.dev.)]

		M	F	Δ	Sig.
Korea (n=945)	Paid work	9.0 (2.7)	7.8 (2.5)	1.2 (3.3)	***
	Unpaid work	0.8 (1.2)	3.4 (1.9)	2.6 (2.2)	***
	Total workload	9.8 (2.5)	11.2 (1.8)	1.5 (2.7)	***
Spain (n=381)	Paid work	8.3 (3.6)	6.6 (3.7)	1.7 (4.4)	***
	Unpaid work	2.5 (2.0)	4.8 (2.8)	2.4 (3.4)	***
	Total workload	10.8 (3.0)	11.5 (2.9)	0.7 (3.0)	***
Australia (n=179)	Paid work	9.6 (3.0)	6.3 (4.1)	3.3 (4.8)	***
	Unpaid work	2.4 (2.1)	5.4 (3.3)	3.0 (4.0)	***
	Total workload	12.0 (2.2)	11.8 (2.7)	0.2 (2.9)	n.s.
UK (n=161)	Paid work	8.3 (3.8)	5.4 (4.7)	2.9 (6.0)	***
	Unpaid work	2.3 (2.1)	4.9 (3.3)	2.6 (3.7)	***
	Total workload	10.6 (3.0)	10.3 (3.4)	0.3 (4.1)	n.s.
Finland (n=172)	Paid work	7.1 (4.3)	5.7 (4.1)	1.3 (5.2)	***
	Unpaid work	2.9 (2.4)	4.2 (2.8)	1.3 (3.5)	***
	Total workload	10.0 (3.6)	9.9 (3.2)	0.1 (3.5)	n.s.

300 *Notes.* n=number of couples, M=men, F=women, Δ =absolute difference in mean, Sig.=two-sided significance of paired
 301 sample t-test. Levels of significance: *** $P \leq 0.001$, ** $P \leq 0.01$, * $P \leq 0.05$, n.s. not significant.
 302
 303

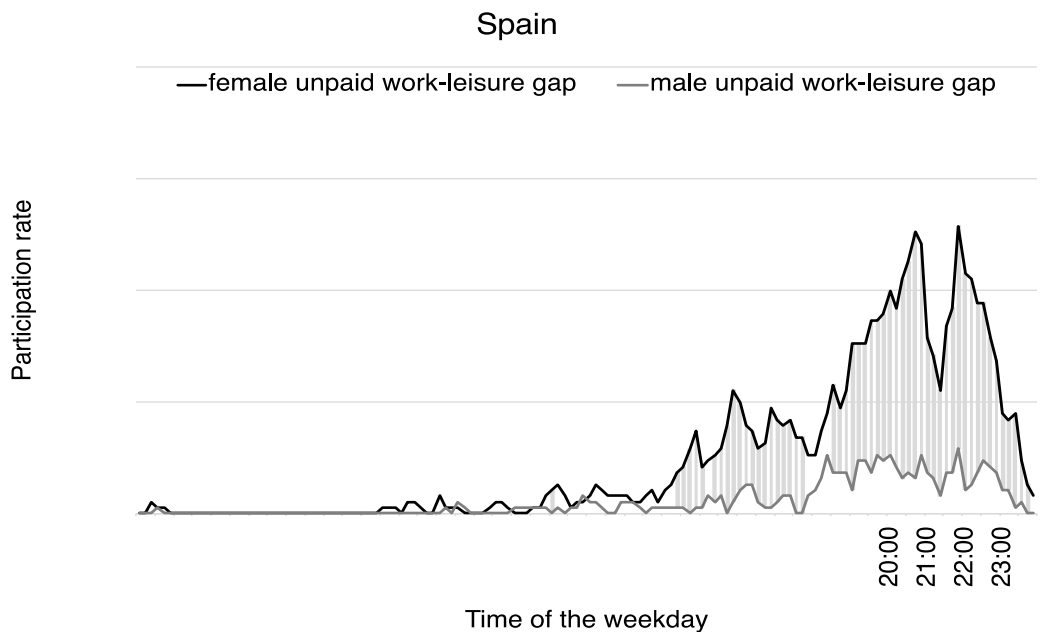
304 4.2 Timing of the unpaid work-leisure gap

305 Drawing on the time use data of matched couples together, Figure 1 shows the time during
 306 which one partner is doing routine, time-critical unpaid work while the other partner is
 307 simultaneously at leisure. The lines represent the percentage of fulltime employed fathers and
 308 mothers in dual earner families (y-axis) over the course of the day (x-axis) performing routine unpaid
 309 work while their partners are at leisure (black line for women, dark grey line for men). The vertical
 310 light grey lines indicate the times of day at which there is a significant gender difference in the
 311 simultaneous unpaid work-leisure gap.

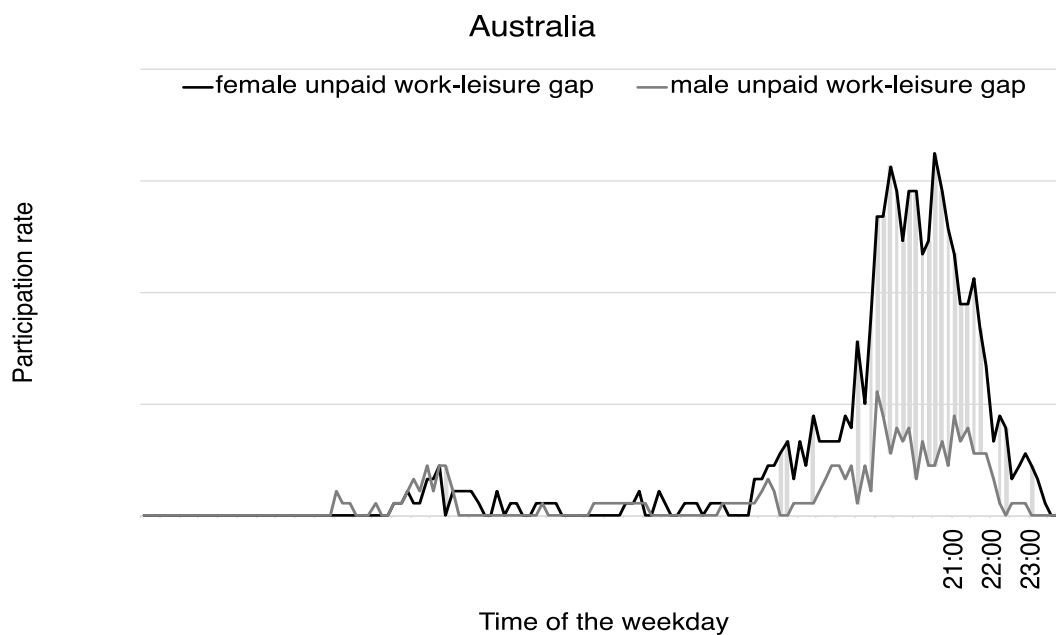
312 Two key observations stand out. One, time during which one partner is at leisure while the
 313 other performs routine unpaid work largely occurs between 4 pm and 10 pm. This is when working
 314 parents must pick up children from school or day care, travel home, and perform tasks such as
 315 feeding children, supervising homework, bathing and preparing children for night-time, and cleaning
 316 up the house. This confirms the cross-national ubiquity of the evening family rush hour. Two, much
 317 higher percentages of mothers than fathers do these activities whilst their partner is not also
 318 performing either paid or unpaid work. That is, in fulltime dual earner households, mothers not only
 319 do most of the routine unpaid work at peak times of household demand but do so while their male
 320 partners could be of help because at that same time they are at leisure.

321 Gender differences in the simultaneous unpaid work-leisure gap are statistically significant in
 322 all countries. All but Spain have a peak of over 15% of mothers in doing routine unpaid work while
 323 their partners are at leisure. Finland has the highest percentage of fathers doing routine unpaid work
 324 while their partners are at leisure, followed by the UK and Australia. However, percentages are low
 325 (around 5% of fathers). In Spain and in Korea almost no fathers do routine unpaid work while
 326 mothers are at leisure. Also, in these two countries, the female unpaid work-male leisure gap occurs
 327 over a wider daily timespan than in the other three countries. Korea, uniquely, also has a small
 328 morning peak period between 6.00 and 9.00 am during which a significant percentage of fulltime
 329 employed mothers are doing routine unpaid work while their partners are at leisure.

330 **Figure 1.** Cross-national comparison of the percentage of fulltime employed men and women in dual
 331 earner households with child(ren) (y-axis) at a particular time of weekday (x-axis) performing
 332 unpaid work while their partner is simultaneously at leisure



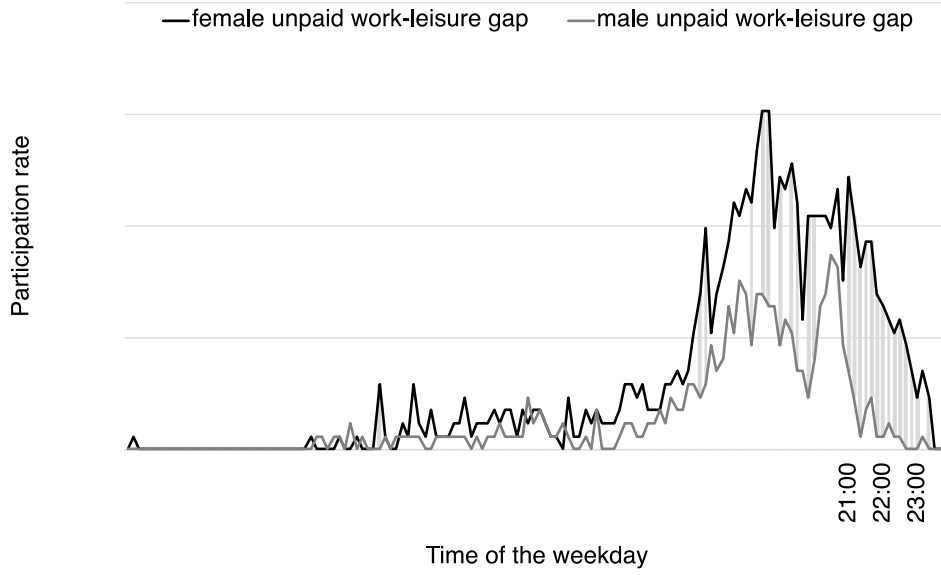
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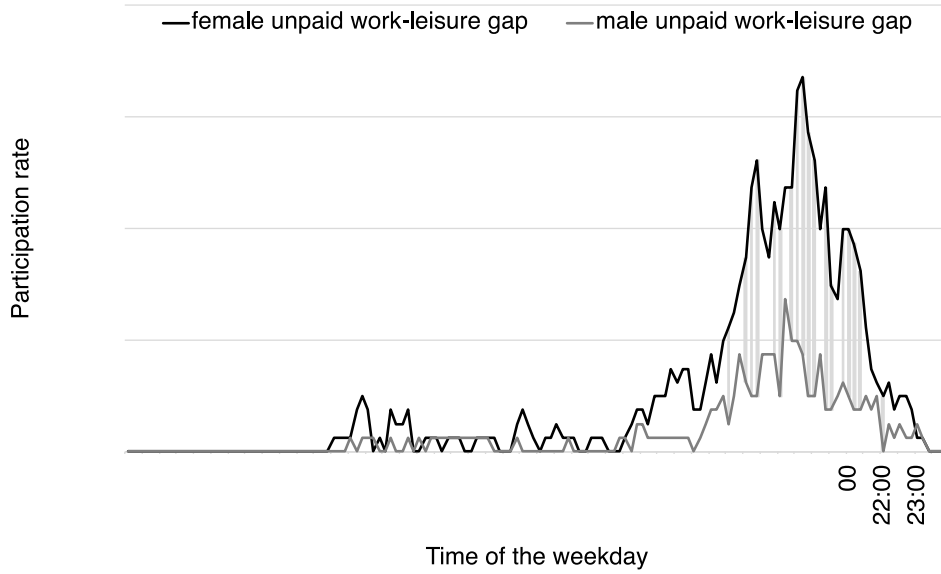
Finland



336

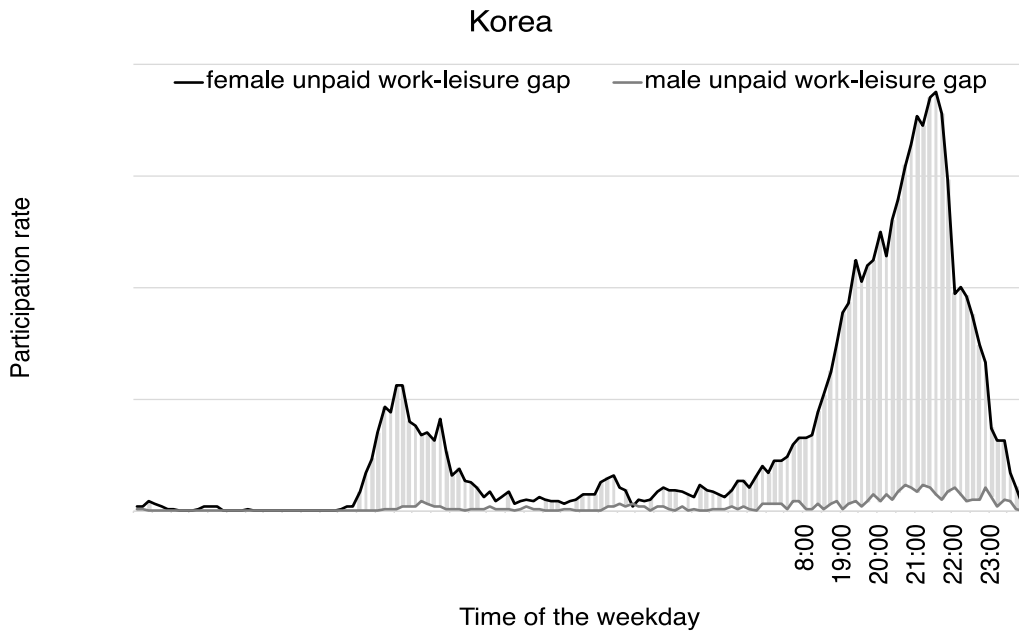
337

UK



338

339



340

341 *Note.* Vertical light grey lines represent a significant difference in the proportion of men and women doing unpaid work
 342 while their partners have leisure at the time of the day (paired-sample t-test against $\alpha=0.05$)

343 On weekend days the time-critical family rush hour is less relevant. In supplementary
 344 analyses (results not shown but available on request), an unpaid work-leisure gap was still evident,
 345 but it spread over the course of the day. In all countries at almost any time between 6 am and 10 pm
 346 on the weekend, more mothers were doing routine unpaid work while their partners were at leisure
 347 than vice versa. This suggests that weekend behaviour patterns echo weekdays, rather than being an
 348 opportunity for couples to rectify the gendered work-leisure differences of the working week.

349 **4.3 Estimators of the unpaid work-leisure gap**

350 The multivariate analysis tests for country differences in the size of the simultaneous unpaid
 351 work-leisure gap in our sample of fulltime employed mothers and fathers in dual earner families, net
 352 of individual and household characteristics (see Table 4). All else equal, women are estimated to
 353 spend 0.93 of an hour (56 minutes) per weekday more on routine unpaid work while their male
 354 partners are at leisure than vice versa. If different in no other characteristic than country, the gender
 355 gap in simultaneous leisure and unpaid work is wider in Korea (+0.27 hours) and smaller in the UK
 356 (-0.24 hours) than it is in reference-category Finland. The gaps in Spain and Australia are not
 357 significantly different from that in Finland.

358

359 **Table 4. Linear regression of gender difference in amount of daily time one partner in dual**
 360 **earner households with child(ren) performs unpaid work while their partner is simultaneously**
 361 **at leisure on a weekday**

		B	s.e.	Sig.
Constant		0.93	0.13	***
Country characteristics				
Country (ref. Finland)	UK	-0.24	0.11	*
	Australia	-0.15	0.10	n.s.
	Spain	0.05	0.09	n.s.
	Korea	0.27	0.09	***
Individual characteristics of female partner				
Female >45 years old (ref. no)	Yes	0.06	0.07	n.s.
Female tertiary degree (ref. no)	Yes	-0.01	0.05	n.s.
Female weekly working hours (ref. 34-39 hrs/w)	40+ hrs/w	0.01	0.05	n.s.
Female professional job status (ref. no)	Yes	-0.05	0.05	n.s.
Female worked on nonstandard hours (ref. no)	Yes	-0.27	0.04	***
Individual characteristics of male partner				
Male >45 years old (ref. no)	Yes	0.01	0.05	n.s.
Male tertiary degree (ref. no)	Yes	-0.01	0.05	n.s.
Male weekly working hours (ref. 34-39 hrs/w)	40+ hrs/w	0.05	0.07	n.s.
Male professional job status (ref. no)	Yes	-0.38	0.13	**
Male worked on nonstandard hours (ref. no)	Yes	-0.33	0.04	***
Country interaction terms (only significant effects shown)				
Country x male professional job status (ref. Male professional in Finland)	Professional in UK	0.44	0.18	*
	Professional in Australia	0.15	0.20	n.s.
	Professional in Spain	0.21	0.15	n.s.
	Professional in Korea	0.30	0.15	*
Household characteristics				
Number of children <15 years		0.00	0.03	n.s.
Equalised household income in deciles		-0.02	0.01	*
Adjusted R ²	0.092			
Model statistics	F(df)=10.345(20), P<0.001			

362 *Notes.* B=unstandardized regression coefficient, s.e.=standard error, Sig.=two-sided significance of t-test. Levels of
 363 significance: ***P≤0.001, **P≤0.01, *P≤0.05, n.s. not significant.

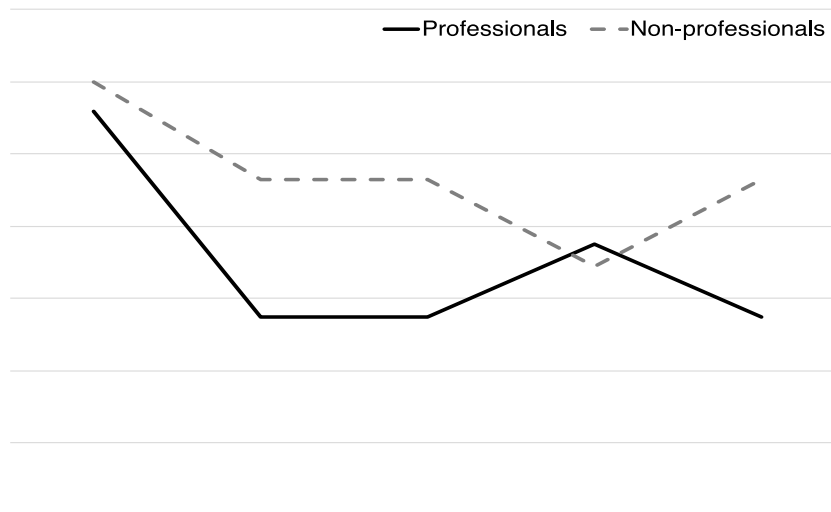
364 Net of country, no individual characteristics of female partners were significantly associated
 365 with the gendered unpaid work-leisure gap, except for working nonstandard hours (outside 7am-
 366 7pm) on the diary day. This predicted the gap would be -0.27 hours smaller than if the female partner
 367 worked a standard schedule. Men's nonstandard hours on the diary day were similarly predicted to
 368 reduce the simultaneous unpaid work-leisure gap, in this case by -0.33 hours. This accords with prior
 369 research suggesting that nonstandard hours can facilitate one partner being available to do family
 370 care while the other works (Presser 2005; Craig and Brown 2017). Interaction terms (not shown)

371 indicted no cross-national variation in the effect of nonstandard hours.

372 The only other significant individual characteristic was men having a professional rather than
373 a non-professional occupation, which was associated with the simultaneous unpaid work-leisure gap
374 being smaller by 0.38 hours. This is consistent with research suggesting that professional men and
375 women commonly partner with each other and that gender attitudes are more liberal, domestic
376 outsourcing more common, and divisions of labor more equitable, amongst professional couples
377 (England & Srivastava, 2013; Sayer, Gauthier, & Furstenberg, 2004). However, men having a
378 professional job did not have the same effect across countries. Interaction terms reveal that in the UK
379 and Korea, the male partner having professional job status was more positively associated with the
380 unpaid work-leisure gap (+0.44 and +0.30 hours respectively), compared to reference-category
381 Finland. This counteracted the negative main effect and meant that the net difference between
382 households containing a professional rather than non-professional male partner was much narrower
383 in the UK and Korea than in the other three countries.

384 In the case of the UK, this suggests the narrower unpaid work-leisure gap found as a main
385 country effect reflected households with non-professional men. This is consistent with research
386 suggesting that in the UK many working class men are more involved in family care than their
387 equivalents in other countries (Crompton & Lyonette, 2007), which may be related to the lower
388 incidence of working evenings in that country (see Tables 1 and 2). In the case of Korea, it means the
389 *wider* unpaid work-leisure gap found as a main country effect applies to both professional and non-
390 professional men, suggesting this indicator of gender inequity is consistent across classes in that
391 country. The substantive results of the interaction terms are illustrated in Figure 2, showing that the
392 significant professional/non-professional difference found in Finland (and Australia and Spain) is
393 minimal in the UK and Korea.

394 **Figure 2.** Differences across countries in simultaneous unpaid work-leisure gap in fulltime dual
395 earner parent couples for professional and non-professional men [hours per weekday]



396

397 *Note.* Calculated from the results of Table 3. Gap for non-professionals in Finland is equal to the intercept and gap for
398 professionals in Finland is calculated by summing the intercept and main effect of professional status; gaps in other
399 countries calculated by summing the intercept and significant main effects for country (for non-professionals) and main
400 effect for professional status and significant interaction between country and professional status.
401

402 Across all the countries, the number of children under 15 in the household predicted no significant
403 variation in the unpaid work-leisure gap, but it was estimated to reduce by 0.02 hours (1.2 minutes) a
404 day in association with each decile increase in household income.

405

406

5 Conclusion

407 The new contribution of this paper was to directly examine the timing of fulltime dual earner
408 parents' daily workload, analysing time-use data from matched couples in five countries. We found
409 strong gender patterns in the timing of unpaid work and leisure, even when holding employment
410 hours and schedules constant. Fulltime employed mothers not only had a higher proportion of their
411 total work unpaid than fulltime employed fathers did, but were also much more likely to do routine
412 and time-critical unpaid work while their partner was simultaneously at leisure, and thus theoretically
413 able to assist. In addition, most of this simultaneous unpaid work-leisure gap occurred in the evening
414 'family rush hour'. This demonstrates that for a substantial share of households the temporal
415 structures of family duties (e.g. day care closing times and needs of children for care and attention)
416 are more of a constraint upon fulltime employed mothers than upon fulltime employed fathers within
417 the same household. The timing of these peak moments falls at the fringes of standard working
418 times. The temporal rhythm by which paid work occurs during the day and leisure in the evenings is
419 a gendered phenomenon in about one in six dual earner families. This has been implicit in prior
420 research on gendered task allocation, but what we show here explicitly for the first time is that
421 fathers are available at these times and could share in the time-critical unpaid work if they forewent
422 their early evening leisure.

423 The results using our new measure reveal the inadequacy of the time availability approach in
424 explaining gendered divisions of labour. If partners are at leisure, they are not at work, so by
425 definition, they *are* available. Fulltime employed women face a two-fold constraint. Not only do they
426 do more routine household tasks than their partners, but they are also locked into performing them at
427 times that make them unavailable to respond flexibly to work demands (e.g. work late) and/or restrict
428 their access to leisure and other non-work activities. We also found little support for the relative
429 resources approach. A *smaller* simultaneous unpaid work-leisure gap was associated with a male
430 partner's professional job status in Finland, Spain and Australia, suggesting men do not use this
431 status to bargain out of unpaid work during the family rush hour. In the UK and Korea, there was
432 little substantive difference on this basis, suggesting in those countries, dominant patterns in the
433 gendered unpaid work-leisure gap applied across this measure of job status. Education and women's
434 professional status had no significant effects, suggesting gender outweighs these potential
435 advantages. A data limitation is that we do not have information on partners' individual earnings, so
436 cannot test their independent effect on domestic bargaining. Gender wage gaps suggest that fathers
437 are more usually the higher earner (OECD, 2020), but since female career progression is likely
438 limited by the gendered temporal constraints identified here, the effect on domestic bargaining would
439 be circular.

440 Thus, consistent with previous research on other aspects of domestic labour, (see for example
441 Bianchi & Milkie, 2010; Lachance-Grzela & Bouchard, 2010) gender difference in accountability
442 and responsibility for family labour is the strongest explanation for our results. They show that even
443 in dual fulltime earner families with working hours and schedules held constant, many men do not
444 subject themselves to the same temporal constraints upon their leisure and downtime as their
445 partners. They support the gender ideology/role expectations approach to the gender division of
446 labour. To the extent that gender roles are created and perpetuated by everyday interaction (West &
447 Zimmerman, 1987, 2009), we provide a further example here. Some might attribute our results to

448 female ‘gate-keeping’. There is evidence that women protect time with children (Bianchi, 2009), and
449 some may be reluctant to give up domestic control (Gaunt, 2008). However, given the strain of
450 meeting deadlines and juggling the demands of paid and unpaid work at the end of the working day,
451 it seems likely that women would welcome their partners’ input at this time. It seems more probable
452 that our results are driven by male choice, with their relatively privileged social position increasing
453 their chances of having their preferences, rather than those of women, prevail (Chafetz, 2004). As
454 noted above, ideals of femininity have changed more than ideals of masculinity, perhaps because
455 men stand to lose while women stand to gain and resist relinquishing power in the household
456 (Connell, 2009). Men’s willingness to enjoy leisure or to be socialising *at the same time* as their
457 partner, who also works full time, looks after the home and children under concentrated pressure of
458 time, presents as an exercise of privilege.

459 We found this result in all five countries examined. In line with the institutional differences
460 summarized in Table 1 we found cross-country variation in total workload and in the division of paid
461 and unpaid work (see Table 3), but less in the simultaneous unpaid work-leisure gap. Furthermore,
462 this gap was not narrowest where we had anticipated it would be; in the progressive social
463 democratic country of Finland. We had expected that Finland’s more relaxed worktime regime,
464 egalitarian gender attitudes and more equal labour market participation would engender most gender-
465 similar participation in the family rush hour. And indeed it was the case that in Korea, where gender
466 attitudes are most traditional and male work hours are longest, the unpaid work-leisure gap was
467 wider than in Finland. However, it was not statistically different in Finland than in Spain and
468 Australia, respectively a familialist and a liberal country with relatively sparse policy supports for
469 gender equality in work-family reconciliation (Crompton 2006; Lewis 2009). Net of covariates, the
470 gap was actually smaller in the UK, also a liberal country with a relatively conservative approach to
471 gender equality, than in Finland. This may reflect the comparatively low incidence of week-day work
472 outside standard hours (see Tables 1 and 2), which could facilitate the family involvement of
473 working class men in that country (Crompton & Lyonette, 2007).

474 Overall, the findings suggest that crossnational differences in social norms and work
475 arrangements affect the dynamics of gender in/equality in paid employment much more than they do
476 household labour patterns and responsibility for childcare (McDonald, 2013). ‘Women-friendly’
477 policies largely focus on encouraging women’s employment rather than promoting male domestic
478 participation (Lewis, 2009). That is, policies that directly aim to increase male domestic involvement
479 are few and greater domestic equality is generally expected to be a by-product of enhancing
480 women’s public opportunities (Bergmann, 2005). Our results contribute to scholarship on
481 comparative policy settings by pointing up the limitations of this approach. They suggest that the
482 greater average gender equity in paid and unpaid labour in countries like Finland does not obviate the
483 gendered temporality of unpaid work, particularly in the constraining time-critical labour of the
484 evening family rush hour.

485

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- 604

Appendix.

606 **Table A1.** Coding of routine unpaid work using time-use data for each country

Country	Routine unpaid work				
	Food preparation etc.	Cleaning	Caring for textiles	Childcare	Other
Australia	410 Food and drink preparation/cleanup 411 Food and drink preparation/service 412 Preserving/freezing 413 Wine/beer making 414 Set/clear table 415 Cleanup after food preparation/meals 419 Food and drink preparation/cleanup nec 481 Travel associated with domestic activities	430 Other housework nfd 431 Dry housework 432 Wet housework 439 Other housework nec 468 Disposing of rubbish	420 Laundry and clothes nfd 421 Washing, loading/unloading washing machine 422 Hanging out/bringing in washing 423 Ironing 424 Sorting, folding clothes 425 Clothes upkeep/care 426 Clothes making 427 Sorting clothes for disposal 429 Laundry and clothes care nec	500 Childcare activities nfd 510 Care of children nfd 599 Care of children nec 511 Physical care of children 512 Emotional care of children 541 Minding child 521 Teaching/helping/reprimanding children 531 Playing/reading/talking with child 581 Travel associated with child care activities	611 Purchasing consumer goods 481 Travel associated with domestic activities
Spain	311 Food preparation and conservation 312 Dish washing	321 Cleaning dwelling 323 Heating and water 324 Arranging household goods and materials 329 Other or unspecified household upkeep	331 Laundry 332 Ironing 333 Handicraft and producing textiles 339 Other (un)specified making and care for textiles	389 Other (un)specified childcare 381 Physical care & supervision of a child 382 Teaching the child 383 Reading, playing and talking with child 384 Accompanying child	300 Unspecified household and family care 930 Travel related to household care 936 Travel related to shopping 938 Travel related to childcare
Finland	311 Food preparation 312 Coffee and snack preparation 313 Baking 314 Dish washing 315 Preserving 319 Other or unspecified food management	321 Cleaning dwelling 323 Heating and water 324 Various arrangements	331 Laundry 332 Ironing 333 Producing textiles 334 Handicraft 339 Other or unspecified care for textiles	389 Other or unspecified childcare 381 Physical care and supervision of child 382 Teaching the child 383 Reading and playing with child 384 Accompanying child 385 Outdoors with child 386 Talking with child 938 Travel related to childcare	300 Unspecified household and family care 361 Daily consumer goods 931 Travel related to household care

Notes. *ndf*=not defined, *nec*=not elsewhere classified**Table A1.** Continued

Routine unpaid work					
Country	Food preparation etc.	Cleaning	Caring for textiles	Childcare	Other
Korea	411 Preparation of food 412 Dish washing 413 Pickles, preserves, etc.	431 Tidying 432 Routine indoor cleaning	421 Laundry, hang clothes on the line 422 Put clothes away 423 Ironing, repair clothes 424 Taking clothes to the cleaners 425 Sewing, knitting	5192 Unspecified child care - under school age 5292 Unspecified child care 511 Physical care for child - feed, wash etc. 5191 Medical care to child - under school age 5291 Medical care to school - aged child 521 Prepare the child to go to school 522 Help with homework 5121 Read to child 5122 Play with child 851 Family care related travel	499 Other domestic work 451 Grocery, routine shopping 4531 Routine shopping - online/TV 841 Domestic related travel
UK	3100 Unspecified food management 3110 Food preparation and baking 3130 Dish washing 3140 Preserving 3190 Other specified food management	3200 Unspecified household upkeep 3210 Cleaning dwelling 3230 Heating and water 3240 Arranging household goods and materials 3250 Disposal of waste	3300 Unspecified making and care for textiles 3310 Laundry 3320 Ironing 3330 Handicraft and producing textiles 3390 Other specified making and care for textiles	3800 Unspecified childcare 3890 Other or unspecified childcare 3810 Unspecified physical care & supervision of a child 3811 Feeding the child 3819 Other and unspecified physical care & supervision of a child 3820 Teaching the child 3830 Reading, playing and talking with child 3840 Accompanying child 9230 Travel escorting to/ from education 9380 Travel escorting child other than education	3000 Unspecified household and family care 3611 Shopping mainly for food 9310 Travel related to household care