

Fathers' child care time and mothers' paid work: A cross-national study of Denmark, Spain, and the United Kingdom

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In this study we use time-diary data from Denmark, Spain, and the United Kingdom to analyze how fathers' child care differs across countries with distinct gender norms, family policies, and maternal employment rates. We pay particular attention to the role of mothers' paid work time in influencing paternal child care. Results show that Danish fathers display the most involved child care behavior. Spanish fathers spend more time in child care than UK fathers, but Spanish fathers are less egalitarian than UK fathers regarding the relative contribution to the couple's child care time. Women's paid work is significantly associated with men's routine child care, the most time-demanding and female-typed forms of parenting, but not with men's interactive child care. The study suggests that maternal employment partly drives cross-national differences in fathers' child care time, implying that women's employment policies can influence active paternal involvement.

Keywords: fathers; child care; time use; cross-national research; women's paid work

In Western countries, fathers' absolute and relative contribution to child care has increased substantially over the last few decades (Bianchi, Robinson, & Milkie, 2006; Gauthier, Smeeding, & Furstenberg, 2004; Sandberg & Hofferth, 2001; Sullivan, 2010). This important historical change matters, not only for the critical role that paternal involvement plays in child development, but also for the establishment of gender egalitarian relations (Marsiglio, Amato, Day, & Lamb, 2000; Marsiglio & Roy, 2012; Pleck, 2010). The literature, however, reveals persistent gender inequalities in parental care, especially in the most physical and time-consuming activities (Craig, 2006). This evidence implies that men's child care has responded, but only moderately, to women's increased paid work participation (Esping-Andersen, 2009; Gershuny, 2000; Goldscheider, Bernhardt, & Lappegard, 2014).

National contexts can substantially influence how fathers engage in child care activities. Studies found important cross-national variations in paternal care involvement, which were typically attributed to differences in gender norms, family policies, or women's economic autonomy (Craig & Mullan, 2011; Hook & Wolfe, 2012; Sayer & Gornick, 2012; Sullivan, Coltrane, Mcannally, & Altintas, 2009). Hook's (2006) multilevel study with time-diary data from 1965 to 2003 shows that father-friendly policies and female employment participation are strongly associated with men's engagement in household tasks. Yet, it remains unclear whether these factors affect specifically cross-national differences in child care. Child care,

just like housework, is a demanding domestic activity associated with high levels of work-family conflict and stress (Coltrane, 2000; Craig, 2006). But child care, unlike housework, tends to be perceived as an enjoyable activity that is valued for promoting family solidarity and child well-being (Presser, 1994; Raley, Bianchi, & Wang, 2012). This implies that cross-national studies looking specifically at which factors affect paternal care participation are needed to better understand men's family involvement in contemporary industrialized countries.

In this study, we use time-diary data for married/cohabiting couples with children from Denmark, Spain, and the United Kingdom. These countries exhibit marked differences regarding the reconciliation of family and work, gender culture, and family policies. Denmark is a vanguard in female employment, universalistic family policies, family-friendly work conditions, and gender-egalitarian relations (Esping-Andersen, 2009). Spain presents low female employment rates, residual family policies, traditionalism in domestic labor, and family-unfriendly work conditions (Gracia & Bellani, 2010; Esping-Andersen, Boertien, Bonke, & Gracia, 2013; Gracia & Kalmijn, in press). The United Kingdom falls in-between the two regarding female employment and gender egalitarianism in the home, and – like Spain – lacks a family-friendly institutional context (Lewis, 2009).

We make three main contributions to the literature. First, we pay particular attention to the role of *mothers' paid work*. Previous studies argued that fathers become

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more egalitarian in the home when mothers are active in paid work (Coltrane, 2000). Some studies find a strong positive association between women's paid work and father's child care time (Gracia, 2014; Raley et al., 2012). Yet, others find rather weak associations between female employment and father's child care (Craig & Mullan, 2009; Kitterød & Pettersen, 2006). A cross-national comparison of countries with different levels of female labor force participation can shed new light on this question. Although previous cross-national studies on fathers' child care time controlled for the spouse's paid work (Craig & Mullan, 2011; Hook & Wolfe, 2012; Sayer & Gornick, 2012), little attention was paid to the degree to which fathers respond to their spouse's paid work time. We not only analyze cross-national differences in fathers' child care time after including the wife's paid work time in the analyses, but also examine whether there are significant interaction effects between the country and the wife's paid work time in explaining fathers' child care time.

Second, we analyze fathers' *absolute* and *relative* contribution to child care in couples. Fathers' absolute child care contribution is a key indicator of their effort put into child care (Sayer & Gornick, 2012). Focusing *only* on fathers' relative share of child care can be misleading, especially where couples have better options to reduce parental care time (i.e. through utilization of public child care). Thus, a combination of absolute and relative measures of child care provides an optimal picture of fathers' child care participation. To date, only Craig and Mullan's (2011) study of Australia, Denmark, France, and Italy has considered both absolute and relative measures of father's child care in a cross-national design. Their study suggests that fathers' relative contribution to child care appears more egalitarian in countries where the couple's total child care time can be reduced by using public external child care (i.e. Denmark, France), as opposed to countries where couples (and mothers in particular) have fewer opportunities to reduce child care time via external public child care institutions (i.e. Australia). As in Craig and Mullan's study (op. cit.), we analyze fathers' absolute *and* relative contribution to child care, by using data from Denmark, Spain, and the United Kingdom. We profit from access to time-diary data reported by both parents, one feature that is not available in many other time-use surveys.

Third, we investigate two specific types of child care: *routine* and *interactive*. Gender specialization occurs not only between paid and unpaid work, but also within unpaid work activities (Hook, 2010). In child care, women specialize in *routine* activities (i.e. feeding, changing diapers, parental supervision) (Craig, 2006; Craig & Mullan, 2011), the most demanding ones. Men, in contrast, specialize in *interactive* activities (i.e. playing, teaching, socializing), the most enjoyable ones

(Bianchi et al., 2006). Distinguishing these two dimensions of child care is essential to identify the conditions under which parenting behavior becomes more gender egalitarian. The few cross-national studies that have analyzed fathers' routine and interactive care have provided mixed and inconclusive answers (Craig & Mullan, 2011; Hook & Wolfe, 2012). This motivates new cross-national research considering measures of fathers' routine *and* interactive child care.

Previous research: theoretical and empirical studies

Child care, like housework, is a highly demanding gendered activity that imposes high levels of family-work conflict. Child care activities reduce parents' ability to dedicate themselves to rival activities, such as leisure and job careers (Craig & Mullan, 2011). Yet, unlike housework, child care is seen as an enjoyable activity that promotes child well-being and family ties. Parents are accordingly expected to be highly motivated to spend time and money in caring for their offspring (Hallberg & Klevmarken, 2003; Raley et al., 2012). These two components of child care, the domestic-related and emotional-related, need to be considered to understand paternal care involvement (Coltrane, 2000).

Theoretical perspectives on parental care include both 'micro' and 'macro' approaches. At the *micro level* we can identify two main perspectives. One holds that parents' child care time responds, not only to their own, but also to their spouse's preferences and constraints, as in Presser's (1994) *time availability* framework and Coverman's (1985) *demand/response capability* perspective. In this approach, fathers respond positively to their spouse's paid work time constraints. The second perspective argues that *gender ideologies* dictate fatherly involvement. Where traditional gender roles prevail, fathers are expected to play a residual role in child care activities, regardless of their personal and spouse's characteristics (Hochschild & Machung, 1989). Both theoretical perspectives have received empirical support in the literature (Raley et al., 2012).

Macro-level theoretical perspectives on fathers' child care have similarities with the micro-level approaches (Craig & Mullan, 2011). Some suggest that in countries where *gender ideologies* are more egalitarian, men are relatively more involved in domestic work, including parental care, than in countries where gender ideologies are more 'traditional' (Fuwa, 2004). In line with the *time availability* (Presser, 1994) and *demand-response capability* (Coverman, 1985) approaches, others argue that fathers in countries with father-friendly work conditions and high levels of female employment are more active in parenting (Hook, 2006). Other studies suggest that countries differ in the extent to which parents adhere to norms of *intensive parenting*, affecting how both mothers and fathers

participate in parental care activities (Sayer & Gornick, 2012). Finally, theoretical perspectives adopting an *institutional approach* have posited that work–family policies influence practices and norms associated with fathers’ child care involvement (Lewis, 2009).

The empirical literature found relevant country differences in fathers’ child care time. First, some studies imply that national-level *parenting norms* explain country differences in fathers’ child care time. Sayer and Gornick (2012) found that mothers and fathers in Anglo-Saxon countries (i.e. Canada, the United States), where children are often seen as ‘*private goods*’, typically spend more time in child care activities than their counterparts in other European countries (i.e. France, Sweden), where children are more likely to be conceptualized as ‘*public goods*’ outside family. Second, *child care policies* also appear to influence country variations in paternal child care. For example, the lower total time that French mothers and fathers spend in parental care, as compared to their US counterparts, can be explained by the higher accessibility to public child care institutions that French parents have, as compared to US parents (see Sayer & Gornick, 2012). Third, *father-friendly policies* seem to matter also in this domain. At least for some countries, father-friendly policies and working conditions seem to explain a higher participation of fathers in child care activities (Gracia, Ghysels, & Vercammen, 2011; Lewis, 2009; Sullivan et al., 2009). Fourth, in countries where *mothers’ socioeconomic position* is higher (i.e. with high female employment rates), men’s contribution to child care activities, especially in the most time-demanding and routine ones, is generally more salient than in countries where women have a lower position in the socioeconomic structure (Craig & Mullan, 2011).

Cross-national studies of fathers’ child care, however, present several gaps. Insufficient cross-national attention has been paid to how fathers’ child care time is influenced by the spouse, particularly the *mother’s paid work profile*. Although cross-national studies on fathers’ child care time (e.g. Craig & Mullan, 2011; Hook & Wolfe, 2012) typically control for the spouse’s paid work, whether fathers from different countries respond in different ways to mothers’ paid work time has received little attention. For example, fathers in gender-egalitarian countries might be more responsive to the spouse’s paid work time than fathers in less-gender-egalitarian countries. Another gap includes the fact that scholars have rarely analyzed fathers’ *relative* contribution to child care in couples, apart from their absolute participation in child care, an important approach to understand gender-egalitarian roles in the home (Craig & Mullan, 2011). Finally, it is unclear how national context brings fathers to engage in more or less female-typed and demanding activities, like routine and nonroutine care. We seek to bridge these gaps.

Three national contexts: Denmark, Spain, and the United Kingdom

Our cross-national comparison focusing on Denmark, Spain, and the United Kingdom permits us to frame fathers’ child care involvement in three contexts with clearly distinct cultural, family-work, and policy contexts. Table 1 summarizes basic country differences with respect to family policy, family–work balance, and women’s employment and socioeconomic characteristics.

Denmark has active (and universalistic) public policies to promote family–work balance and gender equity (Bonke & Esping-Andersen, 2011; Esping-Andersen, 1999; Gornick & Meyers, 2003). This country boasts very high female employment rates, even among women with young children, which is arguably a main reason behind its gender-egalitarian division of labor (Craig & Mullan, 2011; Esping-Andersen et al., 2013). The Danish government provides universal and affordable child care (Esping-Andersen, 2009; Gornick & Meyers, 2003), allowing mothers to return rapidly to full-time employment after completing maternity leave (Craig & Mullan, 2011). Danish fathers enjoy rather flexible work conditions and comparatively short workdays (Gracia et al., 2011).

In Spain, the family is considered the key institution of welfare provision (Esping-Andersen, 1999; Jurado Guerrero & Naldini, 1996). Spain has lower female employment rates and higher levels of traditionalism in the division of domestic work than most other Western European countries (Esping-Andersen et al., 2013; Gracia & Bellani, 2010; Sevilla-Sanz, Gimenez-Nadal, & Fernandez, 2010). All Spanish children aged 3–5 are enrolled in Kindergarten, but coverage for children aged 0–2 is modest (OECD, 2007). Because of long working

Table 1. Family–work indicators: Denmark, Spain, and the United Kingdom.

| | Denmark | Spain | UK |
|---|---------|-------|----|
| Female employment rate (%) (1) ^a | 82 | 63 | 74 |
| Male employment rate (%) (1) ^a | 82 | 75 | 79 |
| Maternal employment rate (%) (1) ^a | 83 | 60 | 69 |
| Men’s share of couple’s housework time (%) (2) ^b | 41 | 18 | 32 |
| Children aged 0–2 in care institutions (%) (3) ^c | 62 | 21 | 26 |
| Employed men work ≥ 50 weekly hours (%) (1) ^d | 2 | 7 | 12 |
| Women’s part-time employment (%) (4) ^d | 25 | 22 | 39 |
| Fathers with ‘flexible’ work schedules (%) (5) ^{b,e} | 60 | 16 | 10 |

Note: ^aData for 2008; ^bData for 2000 (Denmark), for 2001 (United Kingdom), 2003 (Spain); ^cData for 2004; (d) Data for 2009; ^dData for 2005; ^eRespondents who agreed with the statement that they have a high degree of flexibility to adapt their work schedules to their family needs. Sources: (1) OECD (2013); (2) Esping-Andersen et al. (2013); (3) OECD (2007); (4) Lewis, Campbell, and Huerta (2008); (5) Gracia et al. (2011).

hours and inflexible working schedules, Spanish parents face severe constraints in terms of balancing paid work and child care (Gracia et al., 2011; Gracia & Kalmijn, in press).

The United Kingdom is characterized by a market-oriented system of public policy (Gornick & Meyers, 2003; Lewis, 2009). Affordable child care is limited, which largely explains the low proportion of preschool children who attend child care centers (Gornick & Meyers, 2003). This is cited as a key factor behind the strong part-time employment bias among British mothers (Lewis, 2009). This contrasts with Denmark, where part-time work is primarily a short transition from maternity leave back to full-time employment (Craig & Mullan, 2011), but also with Spain, where part-time jobs have not been institutionalized in the labor market (Esping-Andersen et al., 2013). The gender division of labor in the United Kingdom falls between Denmark and Spain, with most families being neither ‘traditional’ nor ‘egalitarian’ (Esping-Andersen et al., 2013). Work–family policies in the United Kingdom are limited, and most fathers work long and inflexible hours (Lewis, 2009).

Hypotheses

At a general level, we expect Danish fathers to be more active in child care than fathers in Spain and the United Kingdom. Danish fathers are expected to have the highest normative and lowest opportunity-cost incentives to actively engage in parental care. Also, we expect to find particularly strong country differences in routine care, the most female-typed and demanding types of child care (Esping-Andersen et al., 2013). Given that Danish mothers might spend less time in child care than mothers in the United Kingdom and Spain (due to national differences in mother’s paid work time and public provision of child care centers), these cross-national differences should be stronger for the father’s relative share of child care than for his absolute child care contribution.

H-1: Fathers in Denmark are more active in child care activities than fathers in Spain and the United Kingdom.

H-2: The disproportionate involvement in child care activities among fathers in Denmark is most pronounced for routine care and the relative measures of child care.

In addition, we anticipate that female employment (partly) explains the country differences in fathers’ child care, as one would predict from the *time availability* (Presser, 1994) and *demand/response capability* (Coverman, 1985) approaches. Thus, the expected national differences in paternal child care should

diminish substantially once we control for mothers’ paid work. Given that routine care is particularly sensitive to couple’s negotiations around paid work arrangements (Gracia, 2014; Raley et al., 2012), we expect mothers’ paid work time to reduce country differences in fathers’ routine activities rather than interactive activities.

H-3: Cross-national differences in child care are significantly reduced with mothers’ paid work time, and more for routine care than for interactive care.

Furthermore, we expect to find interaction effects between the national context and mothers’ paid work time in explaining fathers’ child care time. We anticipate that parents in countries where gender-egalitarian norms are more widespread, like Denmark, will respond more positively to the spouse’s paid work time than in countries where gender-egalitarian roles are less widespread, as is the case of Spain and the United Kingdom (Esping-Andersen et al., 2013). These national variations are expected to be more pronounced for routine care than for interactive care, since routine care is particularly associated with a gender-egalitarian fathering role (Coltrane, 2000; Craig, 2006).

H-4: In Denmark, fathers’ child care time is more consistent with the spouse’s paid work time than in Spain and the United Kingdom, with differences being especially salient for routine care.

Method

Data

Time-use surveys are considered to be the best sources of data on individuals’ time-use allocation (Gershuny, 2000; Robinson & Godbey, 1997). We use data from the *Multinational Time Use Study* (MTUS) for Denmark (2001), Spain (2003), and the United Kingdom (2000). One major advantage of these three surveys is that the two partners of the couple reported at least one time diary of activities for the same day. This fact allows us to study how much time fathers spent in child care activities (total time) and their share of child care in relation to the spouse (relative time). Respondents reported their activities for every 10 minutes, including ‘primary’ (the main one) and ‘secondary’ activities (the simultaneous ones). We focus only on primary activities, due to incomplete information for secondary activities. Primary activities are likely to measure time allocation across surveys more efficiently than secondary activities (Kitterod, 2001). We restricted the analyses to weekdays, mostly because Spanish respondents reported only one diary day of activities, thus impeding us from comparing fathers’ child care on weekdays with their child care on weekends. The study

of fathers' child care on weekends is important (Hook & Wolfe, 2012; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001), but we leave this question for future studies. We sample married/cohabiting fathers aged 25–59 with at least one child aged 0–15 in the home ($N = 3,329$ couples). To study fathers' relative contribution to child care we sample couples where at least one spouse was engaged in routine and interactive child care during the day of observation ($N = 1,650$).

Variables

The four dependent variables of the study are: (1) *fathers' routine care*: fathers' minutes in routine child care activities (i.e. feeding, bathing, putting children to bed, basic supervision); (2) *fathers' interactive care*: fathers' minutes in interactive child care activities (i.e. playing, socializing, and teaching); (3) *fathers' share of routine care*: a measure ranging from 0 to 100, capturing the father's relative contribution to the couple's total routine care; and (4) *fathers' share of interactive care*: a measure ranging from 0 to 100, capturing the father's relative contribution to the couple's total interactive care. The main independent variable is *mother's paid work time*, a continuous measure of the total weekly hours of paid work by the mother. Control variables include basic predictors of fathers' child care time: *father college-educated* (dummy), *mother college-educated* (dummy), *father works overtime* (45 hours or more hours per week) (dummy), *age* (continuous), *number of children* (categorical), and *child aged 0–4* (dummy).

Analytical strategy

We run OLS regressions for a pooled sample of couples across the three countries. *Model 1* analyzes raw country differences. *Model 2* includes basic controls. *Model 3* adds women's paid work time into the model. We also include an interaction effect of country and women's paid work in the last model. We use a weighted sample, so as to adjust for the sample size of the population for each country.

Findings

Descriptive analyses

Table 2 presents descriptive statistics of the variables of study. We observe substantial cross-national differences in fathers' child care time. Danish fathers allocate 27.9 minutes per day to *routine child care time*, followed by Spanish fathers (24.7), and UK fathers (19.4). For *interactive child care time*, we observe also that Danish fathers are the most active, spending 18.3 minutes in these activities, followed by Spanish fathers (14.3) and UK fathers

(12.7). Likewise, Danish fathers are the most egalitarian in the *relative share of the couple's routine child care*, contributing 35%, followed by UK fathers (24%) and Spanish fathers (20%). For the *relative share of the couple's interactive child care*, Danish fathers are also the most egalitarian, with an average contribution of 40%, followed by Spanish fathers (38%) and UK fathers (31%). These figures mirror country differences in mothers' child care time. Mothers' routine child care is clearly the highest in Spain (91.0), followed by Denmark (60.8) and the United Kingdom (57.8). On the contrary, mothers' interactive child care time is the highest in Denmark (28.4), followed by the United Kingdom (24.5) and Spain (19.2). We observe that the mother's average weekly hours of paid work is much higher in Denmark (30.2) than in the United Kingdom (19.8) and Spain (17.7). The descriptive statistics of all the other variables are also presented in Table 2.

Multivariate analyses: absolute measures

Table 3 presents OLS results for fathers' absolute child care time. For *routine care time*, in Model 1 (Column 1), Danish fathers spent 8.5 minutes more ($p < .01$), and Spanish fathers spent 5.3 minutes more ($p < .01$), as compared to fathers in the United Kingdom. Model 2 (Column 2), including all the basic covariates, shows similar differences in fathers' routine care between Denmark and the United Kingdom (7.4; $p < .01$), while the difference between Spanish fathers and UK fathers was reduced 17% to 4.4 minutes ($p < .05$). Thus, a fraction of the difference between Spain and the United Kingdom in fathers' routine care time was due to a smaller proportion of Spanish fathers working overtime hours (Model 2). Model 3 (Column 3), which controls also for mothers' paid work time, shows that the difference between Danish and UK fathers is reduced to 4.8 minutes and is no longer statistically significant, whereas a statistically significant difference (4.1, $p < .05$) is still observed for Spain. These results imply that mothers' paid work hours (added in Model 3) explain 44% of the father's routine care difference between Denmark and the United Kingdom.

The last three columns of Table 3 show that Danish fathers engage in more interactive care time than fathers in the United Kingdom. Meanwhile, no difference between Spanish and UK fathers is observed. Model 1 shows a 5.5 minute difference in interactive child care between Danish fathers and UK fathers ($p < .01$). This gap is only slightly smaller (4.8 minutes) in Model 2 ($p < .05$), which includes the father's work time and basic control variables. The estimates from Model 3 indicate that female employment has no substantial additional effect on fathers' interactive care, and country differences remain stable.

Table 2. Descriptive statistics. Means and standard deviations.

| | Denmark | | Spain | | UK | |
|---|---------|---------|-------|---------|-------|---------|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| <i>All Couples (N = 3,329)</i> | | | | | | |
| Father's Routine Care Minutes | 27.87 | (41.74) | 24.70 | (48.40) | 19.37 | (44.58) |
| Father's Interactive Care Minutes | 18.25 | (32.05) | 14.27 | (32.69) | 12.66 | (28.16) |
| Mother's Routine Care Minutes | 60.76 | (68.02) | 90.95 | (99.80) | 57.81 | (79.37) |
| Mother's Interactive Care Minutes | 28.37 | (37.11) | 20.24 | (36.79) | 24.53 | (39.92) |
| Father Works Overtime (45 weekly hours or more) | 0.14 | | 0.25 | | 0.32 | |
| Father has College Education | 0.23 | | 0.20 | | 0.28 | |
| Mother's Paid Work Weekly Hours | 30.22 | (12.77) | 17.76 | (18.66) | 18.87 | (17.72) |
| Mother has College Education | 0.34 | | 0.22 | | 0.29 | |
| One Child | 0.42 | | 0.44 | | 0.39 | |
| Two Children | 0.41 | | 0.55 | | 0.42 | |
| Three (or more) Children | 0.17 | | 0.11 | | 0.19 | |
| Age | 40.02 | (7.35) | 39.98 | (6.05) | 39.53 | (7.05) |
| Child Aged 0–4 | 0.49 | | 0.50 | | 0.44 | |
| N | 338 | | 2082 | | 909 | |
| <i>Couples with Child Care Participants (N = 1,650)^a</i> | | | | | | |
| Father's Share of Couple's Routine Care | 35.13 | (32.95) | 19.75 | (25.31) | 23.70 | (30.59) |
| Father's Share of Couple's Interactive Care | 40.19 | (39.68) | 37.72 | (41.26) | 31.37 | (38.20) |
| Father Works Overtime (45 weekly hours or more) | 0.13 | | 0.24 | | 0.31 | |
| Father has College Education | 0.27 | | 0.23 | | 0.30 | |
| Mother's Paid Work Weekly Hours | 29.50 | (13.33) | 17.36 | (18.50) | 15.69 | (16.78) |
| Mother has College Education | 0.36 | | 0.27 | | 0.30 | |
| One Child | 0.37 | | 0.36 | | 0.34 | |
| Two Children | 0.41 | | 0.53 | | 0.44 | |
| Three (or more) Children | 0.22 | | 0.11 | | 0.22 | |
| Age | 38.82 | (6.82) | 38.68 | (5.49) | 37.70 | (6.28) |
| Child Aged 0–4 | 0.61 | | 0.66 | | 0.64 | |
| N | 223 | | 957 | | 470 | |

Note: ^aThis sample refers to couples where at least one parent participated in routine child care and interactive child care.
Source: Multinational Time Use Study (MTUS) data; Denmark (2001); Spain (2003); United Kingdom (2000).

Multivariate analyses: relative measures

Table 4 shows OLS results for fathers' relative contribution to child care. We observe clear country differences in this respect. From Model 1 we learn that the *father's share of routine child care* is 11.4% higher among Danish fathers than among UK fathers ($p < .001$). In contrast, Spanish fathers contribute 4% less than fathers in the United Kingdom ($p < .01$), primarily explained by the fact that Spanish mothers are more active in routine care than their UK equivalents (see Table 2). Model 2 is generally consistent with Model 1. Model 3 shows a significant positive association between the wife's paid work time and the father's relative contribution to the couple's routine care. Including the mother's paid work hours increases the difference between Spain and the United Kingdom in the father's contribution to routine care to almost 5% ($p < .01$). At the same time, including her work hours cuts the difference between Denmark and the United Kingdom in fathers' share of routine care time in half (to 5.7%) ($p < .05$). Hence, country variations in the father's share of routine child care are partly driven by national differences in female employment.

Table 4 shows interesting country differences for the *father's share of interactive child care*. These results show similarities to, but also differences from, the analyses for the father's relative contribution to routine care. Model 1 shows consistent strong differences between Denmark and the United Kingdom ($p < .01$). Danish fathers contribute 8.8% more to the couple's interactive child care than UK fathers. Spanish fathers contribute 6.4% more to the couple's interactive child care than fathers in the United Kingdom ($p < .01$), partly explained by the fact that UK mothers spent more time in interactive child care than Spanish mothers did. Model 2 shows that including the basic control variables reduces (slightly) the observed differences between Danish and Spanish fathers ($p < .05$). Model 3 shows positive associations between the mother's paid work time and the father's relative contribution to interactive child care. Including this variable eliminates completely the observed differences between Denmark and the United Kingdom, but not the ones between Spain and the United Kingdom. Again, the difference between Denmark and the United Kingdom in fathers' share of interactive child care results from differences in mothers' paid work hours.

Table 3. OLS. Fathers' minutes of routine and interactive child care.

| | Routine Care | | | Interactive Care | | |
|----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> |
| | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> |
| United Kingdom | (ref) | (ref) | (ref) | (ref) | (ref) | (ref) |
| Denmark | 8.5** (2.7) | 7.4** (2.5) | 4.8 (2.5) | 5.5** (2.0) | 4.8* (1.9) | 4.5* (1.9) |
| Spain | 5.3** (1.8) | 4.4* (1.7) | 4.1* (1.8) | 1.6 (1.2) | 0.9 (1.2) | 1.0 (1.2) |
| Mother's Paid Work Hours | | | 0.2*** (0.0) | | | 0.1 (0.1) |
| Father Works Overtime | | -4.3*** (2.2) | -6.3*** (1.7) | | -3.1* (1.3) | -3.1* (1.3) |
| Father with College Degree | | 4.6* (2.0) | 4.6* (2.1) | | 2.1 (1.5) | 2.0 (1.5) |
| Mother with College Degree | | 7.3*** (2.0) | 5.6** (2.1) | | 1.8 (1.4) | 1.6 (1.5) |
| Father's Age | | -0.2 (0.2) | -0.2 (0.2) | | -0.1 (0.1) | -0.1 (0.1) |
| One Child | | (ref) | (ref) | | (ref) | (ref) |
| Two Children | | 3.3 (1.8) | 4.0* (1.8) | | 1.0 (1.3) | 1.2 (1.3) |
| Three or more Children | | 4.6 (3.0) | 5.7 (3.0) | | 3.5 (2.1) | 3.6 (2.2) |
| Child Aged 0-4 | | 25.7*** (2.0) | 26.3*** (2.1) | | 12.9*** (1.4) | 13.0*** (1.4) |
| Adjusted R ² | 0.01 | 0.11 | 0.12 | 0.01 | 0.06 | 0.06 |
| Intercept | 19.3*** (1.5) | 8.2*** (2.1) | 7.4*** (2.1) | 12.7*** (0.9) | 6.9*** (1.3) | 6.8*** (1.4) |
| N | 3,329 | 3,329 | 3,329 | 3,329 | 3,329 | 3,329 |

Note: Standard errors in second row: * $p < .05$, ** $p < .01$, *** $p < .001$.

Source: *Multinational Time Use Study* data for Denmark (2001), Spain (2003), and the United Kingdom (2000).

Interaction effects

The interaction effects for the country and wife's paid work are presented in Table 5; the marginal effects of the predicted values from these models can be also observed in a graphical format in Figure 1. The results of the interaction effects for the *absolute measures* of routine and interactive care time are mixed. For the father's total *routine* care time, we observe a much stronger association between mothers' paid work time and fathers' child care in Spain ($p < .001$) than in either Denmark or the United Kingdom, where we can observe no associations with the mother's paid work hours. For the father's total *interactive* care time, country differences are not significant. The association between female employment and the father's total interactive child care time is positive in Denmark and Spain, although not statistically significant. By contrast, fathers in the United Kingdom appear completely unresponsive to their spouse's paid work time.

The interaction effects for the father's *relative measures* (Table 5 and Figure 1) show insignificant country

differences. For the father's contribution to the couple's *routine* care, the overall effect of the mother's paid work hours is positive and significant, while country differences are statistically insignificant. Likewise, for the father's relative contribution to *interactive* care, we found overall positive associations with the mother's paid work time, yet country differences are statistically insignificant.

Discussion

In this study, we used time-diary data to compare fathers' child care time in Denmark, Spain, and the United Kingdom. We paid particular attention to the role of mothers' paid work time in influencing cross-national variations in fathers' child care participation. The analyses took into account both the total and couple's relative paternal child care time. The latter was possible due to access to data on time diaries for the two spouses, one feature that is unavailable in many recent national time-use surveys. Furthermore, we distinguished between

Table 4. OLS. Fathers' share of the couple's routine and interactive care time.

| | Routine Share | | | Interactive Share | | |
|----------------------------|------------------|------------------|------------------|-------------------|------------------|------------------|
| | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> | <i>Model 1</i> | <i>Model 2</i> | <i>Model 3</i> |
| | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> |
| United Kingdom | (ref) | (ref) | (ref) | (ref) | (ref) | (ref) |
| Denmark | 11.4*** (2.6) | 10.6*** (2.7) | 5.7* (2.7) | 8.8** (3.2) | 7.2* (3.2) | 2.0 (3.3) |
| Spain | -4.0* (1.6) | -4.3* (1.7) | -4.9** (1.7) | 6.4** (2.2) | 5.7* (2.3) | 5.2* (2.3) |
| Mother's Paid Work Hours | | | 0.4*** (0.1) | | | 0.4*** (0.1) |
| Father Works Overtime | | -4.2* (2.2) | -4.0 (2.2) | | -9.9*** (2.6) | -9.6*** (2.6) |
| Father with College Degree | | 1.9 (2.3) | 2.2 (2.3) | | -1.0 (2.8) | -0.5 (2.7) |
| Mother with College Degree | | 0.8 (2.1) | -1.5 (2.2) | | -1.3 (2.6) | -3.8 (2.6) |
| Father's Age | | 0.1 (0.2) | 0.1 (0.2) | | -0.1 (0.2) | -0.1 (0.2) |
| One Child | | (ref) | (ref) | | (ref) | (ref) |
| Two Children | | -2.1 (2.0) | -1.3 (2.0) | | 0.9 (2.5) | 1.7 (2.5) |
| Three or More Children | | -1.3 (2.8) | -0.1 (2.8) | | 5.7 (3.4) | 7.0* (3.4) |
| Child Aged 0-4 | | 2.9 (2.2) | 3.4 (2.2) | | 4.5 (2.7) | 4.5 (2.7) |
| Adjusted R^2 | 0.05 | 0.05 | 0.09 | 0.01 | 0.03 | 0.05 |
| Intercept | 23.7*** (1.4) | 24.1*** (2.7) | 24.2*** (2.6) | 31.3*** (1.8) | 30.2*** (3.2) | 30.2*** (3.1) |
| <i>N</i> | 1,650 | 1,650 | 1,650 | 1,650 | 1,650 | 1,650 |

Note: Standard errors in second row: * $p < .05$, ** $p < .01$, *** $p < .001$.

Dependent variables are measured using percentage points.

Source: *Multinational Time Use Study* data for Denmark (2001), Spain (2003), and the United Kingdom (2000).

routine and interactive activities. The latter allowed us to differentiate between those parenting activities that are most time demanding and female stereotypical (routine care) and those that are more time flexible and male typed (interactive care).

We tested four hypotheses. *Hypothesis 1* stated that Danish fathers are the most active in child care. *Hypothesis 2* anticipated these cross-national differences to be stronger for routine care and the relative contribution to the couple's child care. *Hypothesis 3* held that the greater engagement of Danish fathers is partly explained by mothers' paid work time. We expected therefore that country differences would diminish substantially when controlling for the mother's paid work. *Hypothesis 4* expected that fathers' child care is more responsive to mothers' paid work in Denmark than in the two other countries.

Most of the findings are in line with the hypotheses. At the *general level*, Danish fathers are the most involved in child care, both in routine and in interactive activities. Danish couples also prove to be the most egalitarian in the relative share of routine and interactive child care.

Spanish fathers are, unlike initial expectations, much more active in routine child care than UK fathers, as well as in the relative share of interactive child care. Yet, the father's relative share of routine child care is much lower in Spain than in the United Kingdom. These latter differences between Spain and the United Kingdom are driven by mothers' child care time: Spanish mothers are disproportionately engaged in routine child care, whereas that is not the case for interactive child care. These general findings suggest the importance of analyzing relative measures of child care to better understand cross-national differences in paternal care involvement within the couple.

Results also reveal country differences in fathers' child care conditional on the *mother's paid work time*. The father's contribution to child care is generally associated positively with the mother's paid work time, but this association is most salient for routine caring. These results are consistent with previous studies, suggesting that fathers respond to the spouse's paid work by participating in the most time-demanding forms of child care (Gracia, 2014; Raley et al., 2012; Roeters, van der Lippe, &

Table 5. OLS. Fathers' child care. Interaction effects of country and mothers' paid work.

| | Routine Care | Interactive Care | Share of Routine | Share of Interactive |
|--|--------------------|--------------------|--------------------|----------------------|
| | <i>B</i> | <i>B</i> | <i>B</i> | <i>B</i> |
| United Kingdom | (ref) | (ref) | (ref) | (ref) |
| Denmark | 6.46 (6.47) | 1.27 (4.56) | 10.14* (4.72) | -4.48 (6.90) |
| Spain | -3.46 (2.53) | -1.15 (1.78) | -7.89*** (2.12) | 2.33 (3.09) |
| Mother's Paid Work Hours | -0.00 (0.08) | -0.05 (0.06) | 0.30*** (0.07) | 0.24* (0.11) |
| <i>Mother's Paid Work</i> × <i>Denmark</i> | 0.04 (0.20) | 0.14 (0.14) | -0.12 (0.16) | 0.28 (0.23) |
| <i>Mother's Paid Work</i> × <i>Spain</i> | 0.42*** (0.10) | 0.11 (0.07) | 0.17 (0.09) | 0.16 (0.13) |
| Father Works Overtime | -5.40** (1.77) | -3.39** (1.25) | -4.61** (1.58) | -10.99*** (2.31) |
| Mother with College Degree | 6.68*** (1.97) | 1.74 (1.39) | 2.60 (1.65) | -1.68 (2.40) |
| Father's with College Degree | 7.45*** (1.97) | 2.07 (1.39) | 0.40 (1.63) | -2.72 (2.38) |
| Father's Age | -0.32* (0.14) | -0.07 (0.10) | 0.12 (0.13) | -0.24 (0.39) |
| One Child | (ref) | (ref) | (ref) | (ref) |
| Two Children | 3.87* (1.68) | 3.87* (1.68) | -0.68 (1.49) | 1.22 (2.17) |
| Three or More Children | 2.39 (2.42) | 2.39 (2.42) | -1.55 (2.06) | 4.45 (3.01) |
| Child Aged 0–4 | 26.25*** (1.78) | 26.25*** (1.78) | 3.49* (1.57) | 4.89* (2.30) |
| Intercept | 7.93** (2.66) | 7.93** (2.66) | 18.59*** (2.28) | 27.01*** (3.33) |
| <i>N</i> | 3,329 | 3,329 | 1650 | 1,650 |

Note: Standard errors in second row: * $p < .05$, ** $p < .01$, *** $p < .001$.

Source: *Multinational Time Use Study* data for Denmark (2001), Spain (2003), and the United Kingdom (2000).

Kluwer, 2009). As expected, fathers in Denmark were more active in child care, in part because most Danish women engage in full-time employment. These findings are consistent with studies arguing that work–family policies promoting female employment are positive for an egalitarian gender division of labor (Hook, 2006).

The analyses of *interaction effects* between country and mothers' paid work time, however, were not consistent with expectations. We found, unlike predictions, that the father's engagement in routine child care time is strongly responsive to the spouse's paid work time in Spain, but not in Denmark and the United Kingdom. For interactive care, country differences were insignificant, and fathers in the United Kingdom appear completely unresponsive to the spouse's paid work time. The interaction effects for the relative measures of child care produced more positive associations with mothers' paid work time, but showed insignificant country differences. Overall, in opposition to our expectations in this regard, Danish fathers are generally *not* more responsive to mothers' paid work time than fathers in other countries.

In fact, fathers in Spain are globally the most responsive ones to the spouse's paid work. It is difficult to draw conclusions from these results. One might argue, in line with Craig and Mullan (2011), that in countries more conservative in gender and family values (i.e. Italy, Spain), fathers become more active in child care activities *only* when mothers have high levels of bargaining power. By contrast, in countries that are comparatively more gender egalitarian (i.e. Denmark), the characteristics of the spouse might be less important in explaining paternal child care time. Future studies should further address these important questions.

Overall, our study offers some relevant conclusions. First, Danish fathers are the most active (i.e. in absolute terms) and gender egalitarian (i.e. in relative terms) in parenting practices, in line with previous related studies (Craig & Mullan, 2011; Esping-Andersen et al., 2013). Second, the mother's paid work time is partially associated to cross-national variations in men's (routine) child care, consistent with studies on domestic work activities (Gershuny, 2000; Hook, 2006). This has social policy

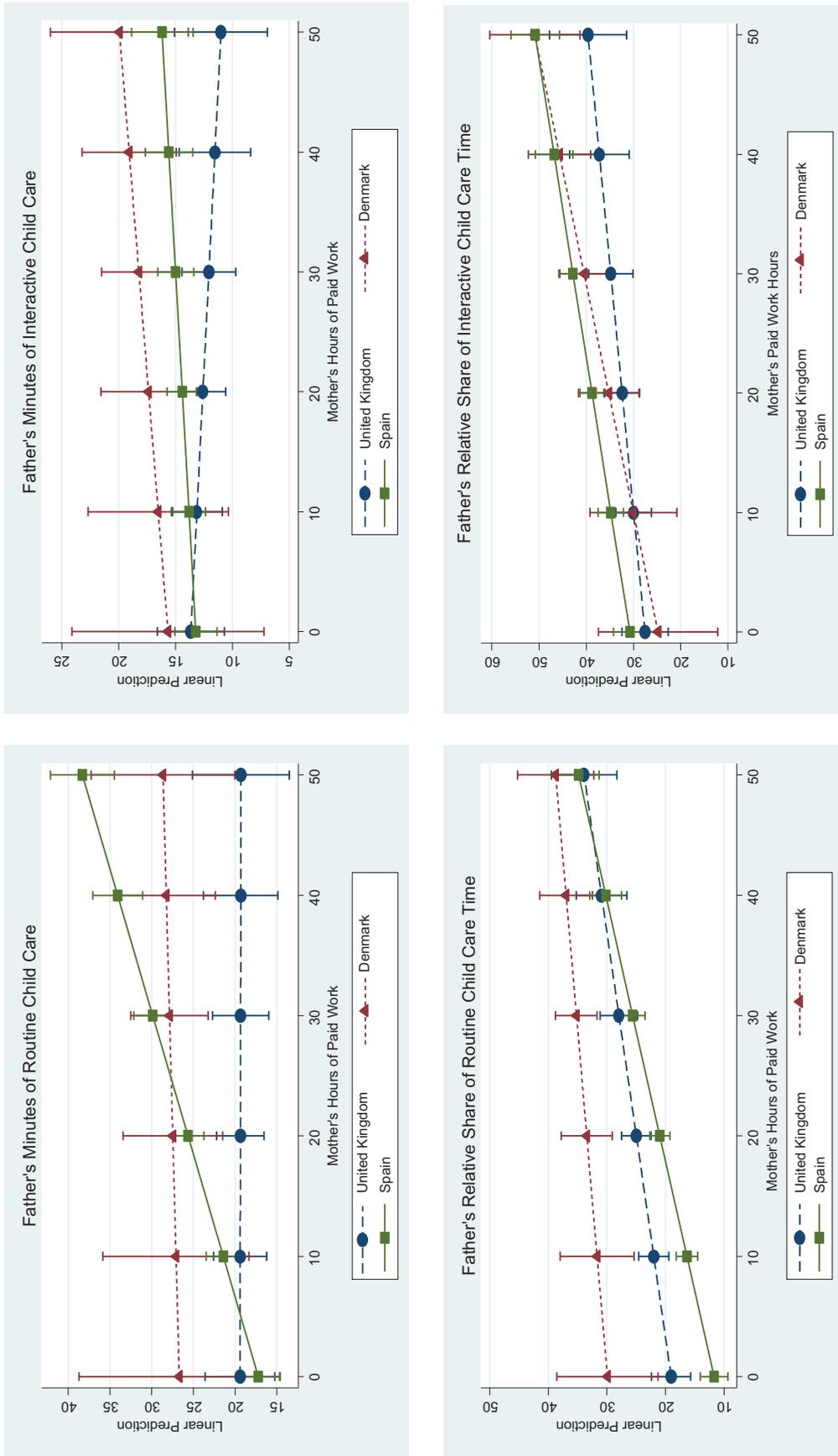


Figure 1. Predicted values. Marginal effects from interactions of country and mothers' paid work hours. Note: Graphical representation of predicted values from models of Table 5. Confidence intervals (at 95%) are included in the graph.

implications: fostering women's full-time employment is likely to reduce gender inequalities in family life. Yet, of course, our study does not allow us to make causal statements in this regard. Third, socioeconomic contexts seem to be more important than specific country-level characteristics in explaining fathers' child care time, as argued by Craig and Mullan (2011). Although Spanish fathers were more responsive to the spouse's paid work in routine child care time than fathers in Denmark and the United Kingdom, country differences were insignificant for the other forms of child care. This implies that demographic differences across countries, more than 'intrinsic' country-level characteristics of fathers, explain most of the national differences in fathers' child care time. Yet, this line of research deserves further empirical attention.

There are some important questions that our study could not address. First, our results are limited to three specific countries. A related multilevel study with a larger number of cases might offer new insights into the micro- and macro-level determinants of fathers' child care time. Second, our data furnish no information on respondents' gender and family values, unlike some previous cross-national studies on the gender division of unpaid labor (Fuwa, 2004). This clearly impedes our ability to identify some of the central mechanisms behind fathers' child care participation, especially when comparing demographic groups with potential national differences in preferences and values. Our study is, in this respect, limited to offering descriptive information on how women's paid work is associated with national differences in paternal child care involvement. Third, cross-national longitudinal data with information on fathers' child care time, today unavailable, would help us better understand the (life course) processes that affect fathers' child care in everyday life. We believe these questions should receive special attention in future studies.

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