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## Child and Adolescent Time Use: A Cross-National Study

**Objective:** This study examined the differences in child and adolescent time use across the following three countries with distinct policy and cultural regimes: Finland, Spain, and the United Kingdom.

**Background:** Studying children's time use cross-nationally is urgent to better understand how societal contexts influence children's daily lives in ways that affect their future lifestyles, development, and identity formation. Yet previous studies have largely omitted this important question.

**Method:** The study used 2009 to 015 time-diary data on children aged 10 to 17 from Finland, Spain, and the United Kingdom (N = 3,491). Multivariate linear regression models examined (a) between-country and (b) within-country variations.

**Results:** Finnish children spent 153 daily minutes less with parents, 128 more with "others" and 54 daily minutes more alone when compared

with Spanish children. The United Kingdom fell between Finland and Spain in children's time allocated with parents and time with "others." In family-oriented Spain, children spent more time eating; in individualistic Finland and United Kingdom, child screen-based time was highest. Parental education generally led to more time in educational activities, but with minor country variations. Maternal employment was generally not associated with child time use, except in Spain, where it led to less parent-child time.

**Conclusion:** The strong cross-national differences in child and adolescent time use seem only partly driven by sociostructural factors. Cross-cultural variations in family values and parenting ideologies seem to critically influence children's daily activities.

Studying children's time use has important scientific and policy implications. How children and adolescents engage in daily activities directly impacts their life course development, personality traits, and identity formation (Ben-Arieh & Ofir, 2002; Gracia, 2018; Hofferth & Sandberg, 2001; Kuykendall, Tay, & Ng, 2015; Larson & Verba, 1999). Previous studies looked at multiple household factors influencing child time use. Children from disadvantaged social backgrounds were found to spend more time watching television and less time reading when compared with more privileged children

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(Belloni & Carriero, 2008; Bianchi & Robinson, 1997; Lareau, 2003; Schmidt & Anderson, 2007; Wight, Price, Bianchi, & Hunt, 2009). Other studies found that maternal full-time work, especially under long and inflexible working hours, is associated with less time on family socializing and educational activities, and with more time on screen-based activities (Gracia & García-Román, 2018; Gracia & Kalmijn, 2016; Mullan, 2009). These studies suggest that parents' monetary and nonmonetary resources, as well as their time availability, affect how children allocate time to daily activities. Yet how national contexts influence children's daily activities remains surprisingly understudied.

In this study, we argue that national contexts can critically influence children's daily activities by two main mechanisms, namely, (a) sociostructural and (b) cross-cultural. The sociostructural argument implies that countries with dissimilar social structures, labor markets, and legal systems provide different opportunities for families and children to organize their daily lives (see Cooke & Baxter, 2010; Sayer, Gauthier, & Furstenberg, 2004). In countries where fathers and mothers have high full-time employment participation rates (dual-earner model), families could frequently arrange children's daily lives outside the home, responding to the time constraints linked to full-time employment. By contrast, where women are more likely to be out of the labor force (homemaker model) or to work part time (1.5 model), we could see that parents—and women particularly—have more available time to arrange family activities with children (see Sayer & Gornick, 2012). From this approach, one would expect to find within-country variations in how children use their time across socioeconomic groups. Countries with active redistributive policies are quite effective at reducing time and monetary gaps between high-skilled and low-skilled workers, which could lead to modest socioeconomic gaps in how families organize activities for children in more egalitarian countries when compared with more unequal countries (Gracia & Ghysels, 2017). This approach suggests not only that socioeconomic gaps in child time use differ across countries but also that between-country variations in child time use are small when we control for socioeconomic and demographic differences across national contexts.

The cross-cultural approach rather highlights the existence of cross-country variations

in beliefs systems, social norms, and parenting ideologies affecting family relations and demographic attitudes (Craig & Mullan, 2012; Esping-Andersen, Boertien, Bonke, & Gracia, 2013; Liefbroer & Billari, 2010). Some countries show shared social norms and parenting cultures that strongly support a privatized logic of child care; other countries favor more a public care approach, where children are seen as public “goods” to be cared outside the home (Gracia & Esping-Andersen, 2015; Pfau-Effinger, 2005; Sayer & Gornick, 2012). In more family-oriented countries, where the family is perceived as a key institution in the provision of intergenerational care relations and family solidarity (Kalmijn & Saraceno, 2008), children's daily activities might occur more frequently under parents' presence and supervision. By contrast, countries with more individualistic family ideologies, which normatively promote young people's autonomy and development outside the family (Aassve, Arpino, & Billari, 2013; Inglehart et al., 2014), could comparatively support children's daily activities without parents, either alone or with others. Overall, the cross-cultural perspective suggests that between-country variations in children's time use are large, even after accounting for multiple socioeconomic factors, and within-country variations in children's time use are small and generally similar across countries.

This study provides new conceptual tools and empirical evidence on how children's time use differs cross-nationally by comparing three Western European countries with marked differences in both *sociostructural* and *cross-cultural* terms: Finland, Spain, and the United Kingdom. At the policy level, Finland shows a “universalistic” public policy approach supporting dual-earner couples and work–life balance (Anttila, Oinas, Tammelin, & Nätti, 2015). The United Kingdom has a “liberal” tradition, with limited state involvement in social redistribution across families and work–family policies prioritizing maternal part-time employment (Lewis, 2009). Spain represents a “family-oriented” regime, displaying low levels of redistributive policies, and relatively low maternal employment rates for Western European standards (Esping-Andersen, 1999; Flaquer, 2000; Jurado Guerrero & Naldini, 2018). At the cultural level, Finland shows an individualistic approach in family values with a public approach to children's care and autonomy; in Spain the

family plays a comparatively important role in intergenerational caring relations; the United Kingdom combines individualism with a privatized logic on family relations and child care (García-Román, Flood, & Genadek, 2017; Inglehart et al., 2014; Sayer & Gornick, 2012).

Our study contributes to the surprisingly scarce cross-national literature on child time use, restricted—to our knowledge—to only two studies. Zuzanek (2005) used time-diary data from 1980 to 2001 to investigate how teenagers aged 15 to 19 use their time in 10 high-income countries, showing that French adolescents engage more in nonscreen leisure activities (i.e., family meals) and those in “individualistic” countries (e.g., Canada, United States) spend more time watching television. Yet Zuzanek (2005) used old data, did not control for any demographic or socioeconomic factor, and did not address “with who” children spent time. Rees (2017) used data from 2013 to 2015 for 16 countries of different income levels to study how children aged 12 spent time in selected activities, showing that country wealth is negatively associated with children’s (un)paid work and positively associated with structured leisure and electronic time. Yet Rees’s (2017) analyses were based on stylized time use measures, providing poorer and certainly more biased estimates than time-diary data analyzing respondents’ activities for a random 24-hour day (Gershuny, 2000; Robinson & Godbey, 1997).

Our analyses provide the most detailed cross-national analysis of child time use to date and with the best available data. We analyze the most recent time-diary data on children and adolescents from Finland, Spain, and the United Kingdom (2009–2014). Focusing on children aged 10 to 17, our surveys cover a longer childhood span than most other studies on youth time use, which lack diary data from children younger than the age of 15 (i.e., Canada, United States). Time use varies strongly from age 10 to 17, with children becoming increasingly independent from parents (Roeters & Gracia, 2016), and therefore we control for age in our analyses. We investigate child time use by addressing specific activities (i.e., educational time, screen-based time, exercising), but also with who children spend time (with parents, with “others,” solitary time). This multidimensional approach allows us to provide new rich detailed data on how child time use differs across national contexts.

## BACKGROUND

### *Children’s Time Use in Cross-National Perspective*

Our study has two main analytical levels on child time use. The first analytical level is the child specific activities. By studying children’s daily activities, scholars can better understand their future development and identity formation. Children’s educational time—reading, studying, library time—fosters their schooling performance, cognitive skills, and cultural capital (De Graaf, De Graaf, & Kraaykamp, 2000; Gracia, 2018; Hofferth & Sandberg, 2001) and socializing activities can promote their social capital (Coleman, 1990). Yet other activities might carry developmental risks. Even if children’s digital knowledge and skills are critical for their future development in our digitalized world (Hofferth & Moon, 2012; Livingstone & Stoilova, 2019), “too much” of screen-based time—television, iPads, phones—can have negative impacts on child emotional, cognitive, or mental health outcomes (Booker, Skew, Kelly, & Sacker, 2015; Wang, Bianchi, & Raley, 2005; O’Keeffe & Clarke-Pearson, 2011).

The second key analytical domain of our study is with who children spend time, another important marker of child well-being. Child time “with parents” establishes the base of their cognitive and socioemotional development (Cano, Perales, & Baxter, 2018; Gracia, 2015; Kalil & Mayer, 2016), but child time with “others” in (un)structured activities frequently fosters the child social capital and relational skills (Coleman, 1990; Putnam, 2001). Children’s “solitary time” has different well-being effects depending on personal characteristics, environments, and the nature of this time. On the one hand, teenagers’ solo time can strengthen their individual autonomy or self-reflection, with recent evidence showing that solitude chosen for intrinsic and self-determined reasons promotes teenagers’ well-being (Thomas & Azmitia, 2019). On the other hand, when children spend “too much” time alone, the risks of suffering from well-being problems increase (i.e., mental health problems, depression symptoms, loneliness; Larson, 1990; Nguyen, Ryan, & Deci, 2018). One way or another, understanding the drivers that influence children’s time with parents and others, but also their solitary time, helps us to better understanding children’s and adolescents’ daily lives.

Most studies on children's time use analyzed household-level measures (e.g., parental education, maternal work constraints) in a single country. These studies suggest that parents' time and monetary resources significantly influence children's time use. For example, *parental education* is linked to both higher resources and intensive norms of "concerted cultivation" (Gracia, 2015; Lareau, 2003). These educational differences lead privileged children to engage disproportionately in activities that stimulate their human capital from early childhood to late adolescence (reading, parent-child educational time, restricted television time; e.g., Cano et al., 2018; Kalil & Mayer, 2016). Another family predictor of children's time use is parental work constraints. Drawing on the time-availability perspective (Presser, 1994), the more time parents spend in employment, and especially under inflexible conditions and schedules, the less developmental, and more potentially risky, the children's daily activities become (e.g., "too much" unsupervised television). Previous research focusing on children at different developmental stages indicates that maternal employment is associated with less time in educational activities and with more time watching television (Bianchi & Robinson, 1997; Mullan, 2009), yet studies found these differences to apply particularly to mothers with inflexible work schedules, especially among less-educated families (Gracia, 2018).

Now, how children's time use differs across national contexts remains unclear. Even if there is ample cross-national research on adults' parenting, leisure, or domestic work (Craig & Mullan, 2012; Gracia & Ghysels, 2017; Hook, 2006; Sayer et al., 2004), we lack strong cross-country evidence on children's and adolescents' time use. The few cross-national studies on child time use, presented in the introduction, provide some relevant insights. These studies, however, either adopted a descriptive approach using old data (Zuzanek, 2005) or used stylized time use data lacking rich time-diary measures of child time use within a 24-hour framework (Rees, 2017). Consequently, our study makes a significant contribution to this international literature.

### *Three National Cases: Finland, Spain, and United Kingdom*

Our study focuses on three Western European countries capturing different policy and

cultural regimes. Table 1 summarizes such variations on the following seven items: (a) welfare state solidarity, (b) family employment models, (c) work-family policies, (d) parenting ideologies, (e) leaving home norms, (f) individualism against familism, (g) socioeconomic inequalities.

Finland represents the Scandinavian model clustering with the social democratic regime tradition (Esping-Andersen, 1999). The Finnish case presents high rates of dual-earner couples with children, with mothers typically working full time, having the highest average working time among female employees in our three countries of study (35 weekly hours) (Eurostat, 2017). Finland can be defined as a highly supportive work-family regime, compared to less supportive regimes, like Spain and the UK (Anttila et al., 2015; Gracia, Ghysels, & Vercammen, 2011; Organisation for Economic Cooperation and Development [OECD], 2016; Thévenon, 2011). With high maternal employment rates, Finland has developed a generous child-care provision system. Accordingly, parental care time in Finnish families is lower than in other European countries, which is also associated with a parenting ideology that is expected to support children as "public" goods that can be cared outside the family (OECD, 2016; Sayer & Gornick, 2012). The literature suggests that parents in Finland generally give high levels of autonomy to children to develop independently outside the domestic sphere, visible for example in a high societal acceptance of children leaving the home early (Aassve et al., 2013). The individualization literature (Triandis, 2018) and recent data from the World Values Survey (Inglehart et al., 2014) suggests that, on average, citizens in Finland give high priority to autonomy and values of "self-expression," which might suggest that adults generally accept children's time outside the family. Public institutions in Finland offer generous support to equalizing opportunities and resources across families with children, showing low structural inequalities despite growing social inequalities during the past decade (Nolan et al., 2014).

The United Kingdom represents the Anglo-Saxon model. In the United Kingdom, a very high proportion of mothers are part-time workers, whereas full-time workers have inflexible work-family conditions (Gracia et al., 2011; Lewis, 2009). This fact, together with a widespread cultural conception of child care as

Table 1. Country-Level Differences in Three National Contexts

Indicators	Finland	Spain	United Kingdom
Welfare state regime <sup>a</sup>	Social democratic	Mediterranean	Liberal
Family employment model <sup>b</sup>	Dual earner	Homemaker	1.5 model
Work-family policy support <sup>c</sup>	High	Low	Low
Parenting ideology <sup>d</sup>	Externalized	Family based	Privatized
Leaving home norms <sup>e</sup>	Early	Late	Intermediate
Individualism vs. familism <sup>f</sup>	Individualism	Familism	Individualism
Socioeconomic inequalities <sup>g</sup>	Lower	Higher	Higher

Source. Conceptual table (elaborated by the authors).

<sup>a</sup>See Esping-Andersen (1999) for a classical typology discussing the role of markets, states and families in the provision of welfare across these three regime types; public expenditure as percentage of GDP: Finland (30%), Spain (24%), United Kingdom (21%; Organisation for Economic Cooperation and Development, 2017; social expenditure data: [https://stats.oecd.org/Index.aspx?DataSetCode=SOCX\\_AGG](https://stats.oecd.org/Index.aspx?DataSetCode=SOCX_AGG)). <sup>b</sup>Percentage of workers that declare having “the possibility to accumulate hours for days off (full or half days) and to vary the start and end of daily work”: Finland = 85%; United Kingdom = 50%; Spain = 35% (Organisation for Economic Cooperation and Development Family Database <http://www.oecd.org/els/family/database.htm>); see Tevenon (2011) for a differentiation between supportive family–work policies (Finland) and less-supportive family–work policies (Spain, United Kingdom), based on the OECD Family Database. <sup>c</sup>This typology builds on previous studies on parenting, welfare regimes, and family relations by using various indicators (e.g., Gracia & Esping-Andersen, 2015; Pfau-Effinger, 2005; Sayer & Gornick, 2012). Number of minutes allocated by married/cohabiting parents to primary child-care activities in couples with children younger than age 15: Finland = 45; Spain = 70; United Kingdom = 64 (Organisation for Economic Cooperation and Development Family Database <http://www.oecd.org/els/family/database.htm>, Organisation for Economic Cooperation and Development, Social Policy Division, Directorate of Employment, Labour and Social Affairs). Percentage of adult population who strongly agree with the statement “Child care for working parents should be entirely governments responsibility”: Finland = 73%; Spain = 52%; United Kingdom = 24% (period 2008/2016; five waves from the European Social Survey; authors’ calculations). <sup>d</sup>Percentage of respondents answering that, to be considered an adult, it is not important to have left the parental home: Spain = 61%; United Kingdom = 51%; Finland = 31% (data from the rotating round “timing of life,” third wave of the European Social Survey 2006; authors’ calculations). As written by Aassve, Arpino, and Billari (2013, p. 388), “in general Mediterranean countries (Cyprus, Portugal, Spain) (...) have the highest age norms whereas the Scandinavian countries (Finland, Sweden, Norway, Denmark) (...) the lowest.” From this and related studies, the United Kingdom often lies in between these two poles, as illustrated in the percentage of respondents considering leaving home as an important marker of adulthood. Although opportunity–cost mechanisms, behaviors, and norms are not independent to each other, these data show different beliefs around children’s independence and autonomy across our three countries of study. <sup>e</sup>Self-expression values: United Kingdom (1.6), Finland (1.3), Spain (0.4). Self-expression values indicate the degree to which individuals in a society give higher or lower priority to autonomy and individual-oriented values (including scales with positive and negative values). The first group of items included in this scale relate to the theme of sexual freedom. The second group of items addresses the equal opportunity component of self-expression values in the area of gender equality. The third group of items indicates an emphasis on personal autonomy in educating citizens or children in society (World Values Survey, 2011–2014; Inglehart et al., 2014). Although the three countries of our study report positive average values in self-expressionism, numbers are higher in United Kingdom and Finland when compared with Spain. See also Pfau-Effinger (2005) and Kalmijn and Saraceno (2008) for a discussion of categories and typologies considering family support and domestic ideologies and family solidarity across European countries. <sup>f</sup>GINI coefficient: Finland = 0.25; United Kingdom = 0.33; Spain = 0.34. The Gini coefficient is the ratio of income inequality between the richest groups of one country and the poorest, with larger numbers indicating higher levels of income inequality, and lower levels leaning toward greater income equality (Eurostat, 2017). <sup>g</sup>Maternal employment rates: Finland = 77%; United Kingdom = 73%; Spain = 59% (Eurostat, 2017). Although Spain has experienced a very sharp increase in maternal employment during the past decades, the breadwinner model is much more dominant in this country when compared with the United Kingdom and especially Finland; maternal part-time employment, as the percentage of working-age mothers with children aged 0 to 14 who work usually less than 30 hours per week in their main job: United Kingdom (35%), Spain (19%), and Finland (8%). (Organisation for Economic Cooperation and Development, 2016; Organisation for Economic Cooperation and Development Family Database; [www.oecd.org/els/family/database.htm](http://www.oecd.org/els/family/database.htm)).

a “private” domain, is associated with the higher absolute levels of parental child-care time in the United Kingdom when compared to Finland and other Scandinavian countries (Gracia & Esping-Andersen, 2015; Sayer & Gornick, 2012). Liberal attitudes of individualism are consistently high in the United Kingdom, showing the highest levels of autonomy and self-expression values within our three countries of study (Inglehart et al., 2014). The United Kingdom is characterized by a market-oriented model of public policy and family relations in which institutions provide low levels of income redistribution and limited public intervention for disadvantaged families (Gracia & Ghysels, 2017; Kan, Sullivan, & Gershuny, 2011; OECD, 2016).

Spain represents the Southern European regime, with a higher proportion of families in the male-breadwinner model when compared with the United Kingdom and especially to Finland. Low maternal employment rates partly explain the quite high levels of child-care time among mothers in Southern Europe when compared to Scandinavian countries (Gracia & Esping-Andersen, 2015). The Spanish government offers limited support to working parents to balance paid work with family life, which partly explains the high incidence of male-breadwinner couples and the growing presence of female part-time jobs in the country (Esping-Andersen et al., 2013; Gracia & Kalmijn, 2016; OECD, 2016). This country displays a widespread acceptance of strong family ties and family solidarity when compared to countries such as Finland, with stronger individualistic norms within family relations and social life (García-Román et al., 2017; Jurado Guerrero & Naldini, 2018; Kalmijn & Saraceno, 2008). Finally, Spain shows elevated degrees of social inequality, where policies lack a marked universal support to equalize opportunities across families and children from different social backgrounds (Gracia & Ghysels, 2017).

## THEORETICAL FRAMEWORK

### *Cross-Cultural Hypothesis*

The cross-cultural hypothesis assumes cross-national variations in children’s time use to be driven by variations in social norms, family values, and parenting ideologies. Regarding parenting ideologies, where children’s supervision

is assumed to occur outside the home (Scandinavia), children might be given more space to engage in activities without parents when compared with countries where shared ideologies and attitudes are more intensely driven by family-based views (Southern Europe) or by privatized care ideologies (Anglo-Saxon countries; Gracia & Esping-Andersen, 2015; Sayer & Gornick, 2012). Furthermore, individualism at the societal level might also influence children’s daily activities. Countries with high levels of “individualism”—with a strong emphasis on seeking to develop children outside parental control—might have families, communities, and societies that more directly promote children’s time use alone or with others, even if these activities occur without parents’ presence (Finland, United Kingdom). By contrast, in “family-oriented” countries (Spain), shared societal ideologies of promoting children’s self-realization and development within the family might lead families and communities to seek to minimize child time without parents.

Following the cross-cultural approach, Finnish children would spend the highest amount of time in solitary activities and in activities without parents. By contrast, Spanish children would share more time with parents, as opposed to time alone and with others, capturing less individualistic and more family-oriented cultural values. The United Kingdom, with high levels of individualism (Inglehart et al., 2014), but also with a strong ideology of promoting parental care in the private sphere (Sayer & Gornick, 2012), might be in between these two poles, with a more even distribution of child time alone, with parents, and others. Also, from this approach, Spanish children might disproportionately engage in “traditional” family leisure time (e.g., family meals), and British and Finnish children might spend more time in own-focused activities (e.g., exercising, screen time). By assuming that social norms and attitudes are the main drivers of country differences in children’s time use, this approach holds that (a) within-country differences by parental resources (education) or work constraints (parental employment) are not largest in some specific countries and (b) between-country differences in child time use remain large, even after controlling for demographic, sociostructural, or labor market factors (e.g., maternal work constraints, parental education, family structure):

Hypothesis 1a: Children in Finland spend less time with parents and more time alone and with others than children in Spain, and the United Kingdom falls between the two countries, net of demographic and socioeconomic factors.

Hypothesis 1b: Spanish children are more active in family-based activities (e.g., having meals) and Finnish and U.K. children in more individualized activities (e.g., exercising, screen time), net of demographic and socioeconomic factors.

### *Sociostructural Hypothesis*

The sociostructural hypothesis argues that cross-national differences in child time use are mostly explained by sociostructural processes (e.g., policy and legal contexts, socioeconomic inequalities, labor market factors) that shape monetary, time, and symbolic resources that are available to families to organize children's daily activities. This approach holds a different assumption than the cross-cultural thesis by assuming that (a) within-country variations in children's time use (e.g., by family background or parental employment status) are small where institutions develop redistributive policies and reduce family inequalities, being larger in more unequal countries, and (b) between-country differences in children's time use are remarkably low, and become marginal, once we account for relevant demographic and socioeconomic measures of monetary and time resources (e.g., maternal work constraints, parental education, family structure).

The sociostructural approach, indeed, emphasizes how sociostructural processes shape child time use. Parental education is a marker of cultural values (parenting ideologies) and resources (work autonomy, income), which provide unequal opportunities for children to engage in family and child activities of concerted cultivation (e.g., reading, structured educational time, highbrow cultural activities; Gracia, 2015; Lareau, 2003). Families also differ in time constraints that influence child time use (e.g., employed mothers could have higher time constraints than mothers who are not employed; Presser, 1994). This approach takes these factors into account, but it assumes that national contexts influence children's time use (see Gracia & Ghysels, 2017). First, in this view, it is assumed that, after considering measures of monetary, time, or symbolic resources (e.g., family structure, parental education, work

status), any variation in children's time use between Finland, Spain and the United Kingdom will become small. Second, this approach states that any gaps between low-educated and high-educated families in children's daily activities (e.g., reading, parent-child time) are smaller in more egalitarian Finland when compared with more unequal Spain and the United Kingdom. Likewise, differences in children's time use by maternal work status (e.g., gaps in parent-child time, screen-based activities), after addressing various specifications of work time, should be larger in Spain and the United Kingdom (with low work-family support) than in Finland (with high work-family support):

Hypothesis 2a: Differences in children's time use between Finland, Spain, and the United Kingdom are minor after controlling for multiple demographic and socioeconomic factors.

Hypothesis 2b: Within-country differences in children's time use across families of different resources and time constraints (i.e., by parental education or work status) are smaller in Finland and larger in Spain and the United Kingdom.

## DATA AND METHODS

### *Data*

We analyzed data from the most recent time use surveys from Finland (2009–2010), Spain (2009–2010) and United Kingdom (2014–2015), three surveys included in the Harmonized European Time Use Survey. These data combine individual and household level measures with detailed diaries of activities, regarded as highly precise and robust statistical sources, compared to stylized questions asking respondents their average time on specific activities (Bianchi, Robinson, & Milkie, 2006; Robinson & Godbey, 1997). Respondents reported detailed diaries of activities along the 1,440 minutes (24 hours) of a random day of the year. In the diaries, children filled the activities they were doing at different moments of the day along 10-minute time slots, indicating also whether they were together with one parent, with others, or alone, for each activity in which they participated.

Our sample included individual diaries reported by children aged 10 to 17 who were students, did not engage in employment, and lived in either a single-mother or a two-parent household. Time-diary surveys tend to have

low response rates. Our surveys are not an exception in this regard; the general average response rate of our surveys is 60%. To account for selection bias in nonresponse rates, population weights were applied to provide robust nationally representative estimates for each country. We excluded cases with missing data on socioeconomic and demographic measures, which in most cases referred to paid work information ( $N = 8$  in Spain;  $N = 97$  in Finland;  $N = 241$  in United Kingdom). Single-mother and working mothers were more likely to report missing data, with moderate associations that were generally constant across surveys. The final number of diary observations in the study was 804 in Finland, 1,324 in Spain, and 1,363 in the United Kingdom ( $N = 3,491$ ).

In the surveys from Finland and the United Kingdom, most children filled two diaries (one on a weekday and another on a weekend), whereas children in the Spanish survey reported one diary only (either on a weekday or weekend). Surveys from all countries contained household samples, which means there could be multiple children in some households of observation (i.e., siblings). Empirical analyses fully account for the clustered nature of samples at the household level and for the possibility of having two diary days for Finland and the United Kingdom. All models were estimated with Stata (StataCorp, College Station, TX) using the clustered sandwich estimator. This estimator specifies that the standard errors are allowed to correlate at the individual and household levels, thus relaxing the usual requirement that observations need to be independent from each other. This specification could moderately inflate the standard errors, but not the regression coefficients, that is, the actual size of the observed cross-national differences in child time use. Finally, weighted analyses ensured an equal diary distribution by day (weekdays or weekends) and time of the year (season) for each country included in the analyses.

#### *Dependent Variables*

Our dependent variables included two levels of analysis: (a) “with who” the child spends time and (b) the “specific activity.” All dependent variables were measured as daily minutes on a random day of the week and year. As for “with who” the child spends time, we refer to daily minutes: (a) “with parents” (with the mother or

father at home, outside school time), (b) “alone” (without the presence of other individuals, outside school time), (c) “with others” (any time without parents, but with other people, outside school time). In addition, to ensure a 24-hour framework, we examined the time: (d) at “school” (any time in activities in the school), (e) “sleeping” (time coded as sleeping in the diary). Regarding specific activities, we selected multiple nonschool awake activities (we excluded personal care, commuting, and activities coded as “others” and “doing nothing”): (a) “screen-based time” (e.g., television, videos, electronics, phones, video games), (b) “educational time” (e.g., homework, reading, library time, cultural spectacles, doing arts, music), (c) “socializing time” (e.g., social relations, playing, social games, volunteering), (d) “eating time” (e.g., meals, drinks), (e) “active time” (e.g., exercising, active sports), (f) “domestic work” (e.g., housework, child care). We refer only to the main activity, as secondary activities (synchronized with the primary activity) can differ across surveys and might produce estimation bias (Kitterød, 2001). Table A1 shows our exact coding strategy.

#### *Independent Variables*

For our independent variables, we used a dummy measure of “country” within a cross-country pooled sample. Unfortunately, we could not run additional multilevel models to complement our detailed small- $N$  comparison (see Bryan & Jenkins, 2016). We used “maternal employment” as a dummy measure that differentiates between 1 = “mother works” and 0 = “mother does not work.” We further employed four categories of maternal working time in some model specifications and robustness checks based on the mothers’ average weekly work hours (0 = “no work,” 1 = “working from 1 to 30 hours,” 2 = “working from 31 to 37 hours,” 3 = “working more than 37 hours”). We used a dummy variable of “maternal education” that differentiates between children with a college-educated mother (= 1) and children with a mother not having a college degree (= 0).

#### *Control Variables*

We used several control variables. Family structure differentiated between 0 = “two-parent family” and 1 = “single-mother family.” Number of children refers to the number of children

aged 0 to 17 at home; number of adults measures the number of adults at home aged 18 or older (ordinal variable). Gender included 0 = “boy” and 1 = “girl.” Age was measured in years as a continuous variable. Day of the week was a dummy variable differentiating between 0 = “weekday” (Monday–Friday) and 1 = “weekend” (Saturday–Sunday). Yearly quarter included the annual seasons: 0 = “1st yearly quarter,” 1 = “2nd yearly quarter,” 2 = “3rd yearly quarter,” 3 = “4th yearly quarter.”

*Empirical Strategy*

Our analyses consisted of linear prediction models within a multivariate framework. First, we ran ordinary least squares regressions to measure children’s time use. Ordinary least squares models are considered to be robust techniques for

observational time-diary data, considered to provide more robust estimates than Tobit models (Stewart, 2013). Second, we predicted differences in children’s minutes allocated to each activity of study across our three countries, after accounting for all our independent and control variables. Third, we conducted linear prediction models to predict children’s time use using an interaction effect of country with (a) maternal work and (b) maternal education. Empirical models were based on a pooled sample including all three countries from our study.

RESULTS

*Descriptive Analyses*

Table 2 presents the summary statistics of the study variables. We observed minimal country differences by age (mean around 13 years

Table 2. *Descriptive Statistics: Means and Standard Deviations in Three Countries*

Indicators	Finland		Spain		United Kingdom	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Daily minutes with others and no parents	351.78	242.53	220.09	190.07	305.63	237.71
Daily minutes with parents	121.27	157.50	281.61	205.85	238.11	216.03
Daily minutes alone	233.80	186.01	183.96	161.19	163.53	173.19
Daily minutes at school	158.00	167.17	185.96	187.77	155.61	175.63
Daily minutes of sleeping	575.26	108.72	568.38	105.86	577.11	112.72
Daily minutes in screen-based activities	203.77	146.45	163.80	128.16	197.56	156.48
Daily minutes in educational activities	78.56	97.42	110.71	104.63	67.42	97.65
Daily minutes in socializing activities	108.55	139.63	86.56	115.95	97.12	120.49
Daily minutes eating meals	71.83	40.73	105.38	45.87	71.74	44.59
Daily minutes of sports and active leisure	46.22	80.26	50.34	82.84	33.21	67.52
Daily minutes in domestic activities	42.74	59.77	41.74	61.40	51.91	76.86
Single-mother household	21%		16%		31%	
Mother’s college education	54%		28%		43%	
Mother’s not employed	18%		38%		31%	
Mother working 1–30 hours per week	13%		18%		39%	
Mother working 31–37 hours per week	13%		11%		16%	
Mother working >37 hours per week	56%		33%		13%	
Age	13.51	2.36	1.47	0.50	13.37	2.29
Girl	47%		47%		50%	
Weekend day	29%		28%		29%	
1st annual quarter (January–March)	28%		26%		27%	
2nd annual quarter (April–June)	21%		24%		26%	
3rd annual quarter (July–September)	24%		22%		26%	
4th annual quarter (October–March)	27%		28%		21%	
Number of adults at home >17 years old	2.04	0.58	2.33	0.82	2.12	0.73
Number of children at home <18 years old	2.12	0.77	1.80	0.77	2.14	0.99
<i>N</i>	804		1,324		1,363	

*Note.* Analyses are weighted by day of the week: Time-use averages can be read as the average minutes on a random day of a random week of the year.

old) and gender (around 50%). The number of children younger than the age of 18 in the household was higher in Finland (2.12) and the United Kingdom (2.14) than in Spain (1.80), mirroring country variations in fertility rates. The proportion of single-mother families was highest in the United Kingdom (31%), followed by Finland (21%), and later Spain (16%). The percentage of nonworking mothers was highest in Spain (38%), followed by the United Kingdom (31%), and being much lower in Finland (18%). Finnish mothers disproportionately worked full-time, namely, more than 37 hours per week (56%). This proportion was low in the United Kingdom (13%) and intermediate in Spain (33%). The proportion of college-educated mothers also differs across countries, with 28% in Spain, 43% in the United Kingdom, and 55% in Finland. Table 2 also shows the means and standard deviations for our time use measures by country, which are also presented graphically in Figure A1 (see Appendices).

#### *Multivariate Analyses: Between-Country Variations*

Figure 1 shows the predicted linear models of cross-national differences in child time use, with all of our study measures included in the model. The results closely mirrored the descriptive time use results of Table 2 (and Figure A1), implying that adding demographic or socioeconomic variables hardly contributed to explain the differences in child time use, consistent with the cross-cultural hypothesis.

Figure 1 shows strong cross-national differences in child time use. In the upper part, we noted that Finnish children spent, on an average day, 127 minutes with parents (1 hour and 48 minutes less than British children and 2 hours and a half less than Spanish children). By contrast, Finnish children spent close to 4 hours alone (1 hour more than British and Spanish children) and almost 6 hours with others (about 2 hours more than Spanish children and 45 minutes more than British children). In Spain, children spent about 3 hours per day at school, which added—interestingly—30 minutes more of school time than in Finland and United Kingdom. Finally, sleeping time was constant across the three countries, with an average of 570 daily minutes. Except for sleeping time, confidence intervals overall show statistically robust cross-country differences (CI: 95% level).

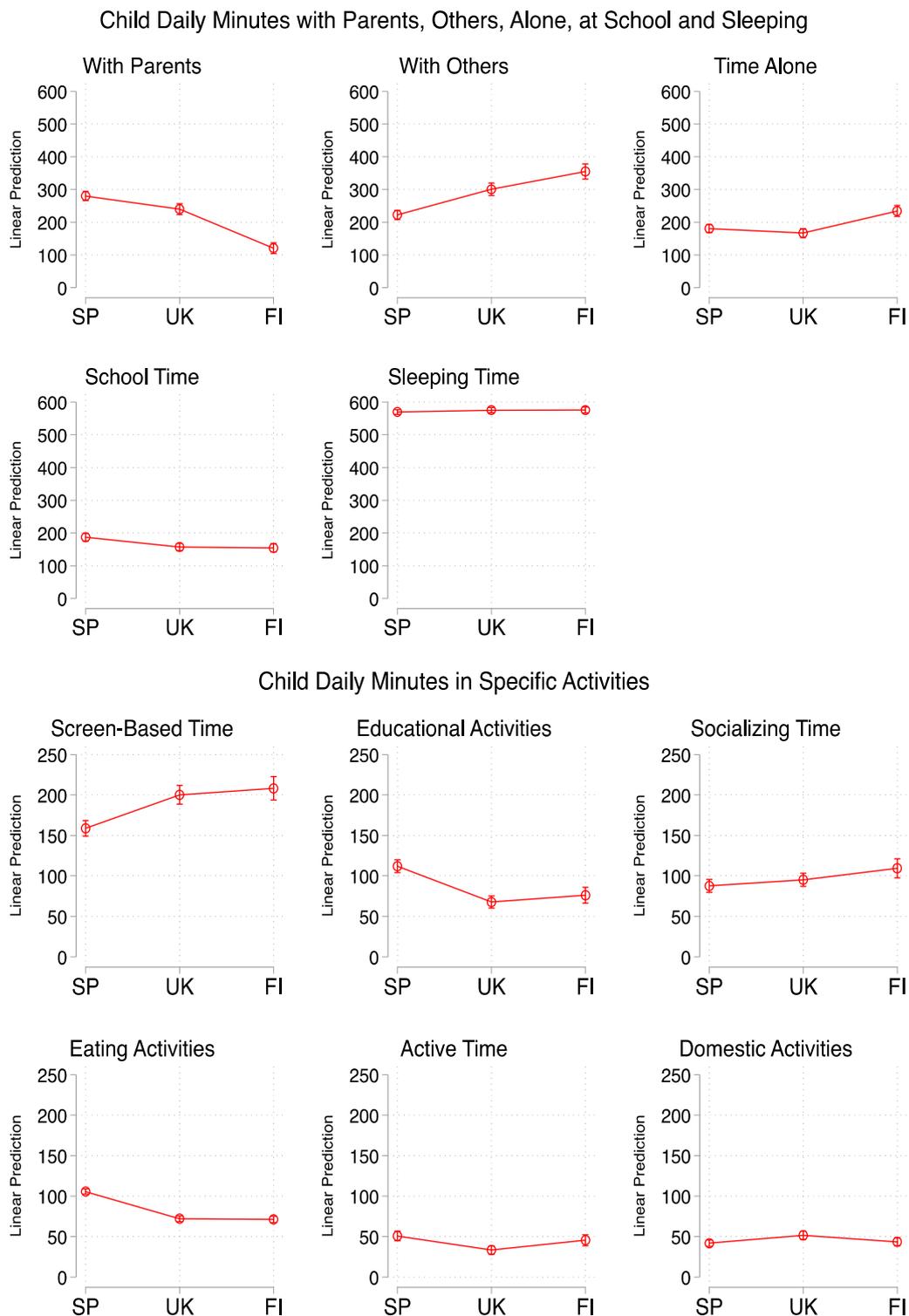
Figure 1 also shows, in the bottom part, children's predicted minutes on awake time use activities outside school hours. British and Finnish children's time in awake specific activities was quite similar, even if their time with parents, alone, and with others differed. Predicted screen time was about 3½ hours in the United Kingdom and Finland, 40 to 50 minutes higher than in Spain. Children in Spain spent more time eating and in educational activities, adding more than 100 minutes in each, more than 30-minute gaps with respect to British and Finnish children. Furthermore, the predicted minutes of socializing time among Spanish children was interestingly the lowest (88 minutes), with differences of 23 minutes with respect to Finland (111 minutes). These cross-national differences were in general statistically significant (CI: 95% level). Finally, for active and domestic work, the predicted minutes allocated by children were low (around 50 minutes) and cross-country differences modest, with children in the United Kingdom being the most involved in domestic work and the least involved in active time.

#### *Multivariate Analyses: Within-Country Variations*

Figure 2 presents the interaction effects for maternal employment and country. The results revealed marginal cross-national differences in the statistical effect of mother's employment on children's time use. The only relevant difference with regard to maternal employment was found in Spain and only with respect to children's time with parents, with predicted values of 314 minutes for children with nonemployed mothers and 262 daily minutes for children with employed mothers, showing statistically robust gaps (95% CI levels). For the specific awake activities outside school hours, we globally observed marginal and insignificant differences in children's time use by maternal work status.

Figure 3 presents the interaction effects for maternal education and country. We observed some relevant educational gradients in specific developmental activities (bottom part). In the United Kingdom, college-educated mothers spent 40 minutes less on screen-based activities and 25 minutes more in education activities when compared with children with less-educated mothers (CI: 95% level). Spain showed similar differences for screen-based

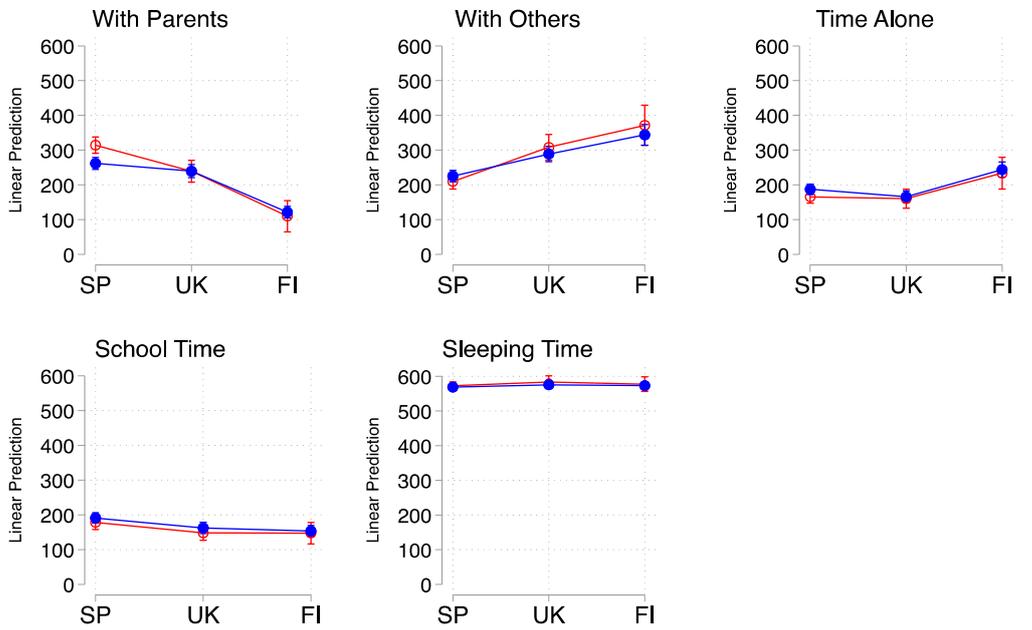
FIGURE 1. PREDICTED VALUES. CHILD TIME USE ACROSS NATIONAL CONTEXTS.



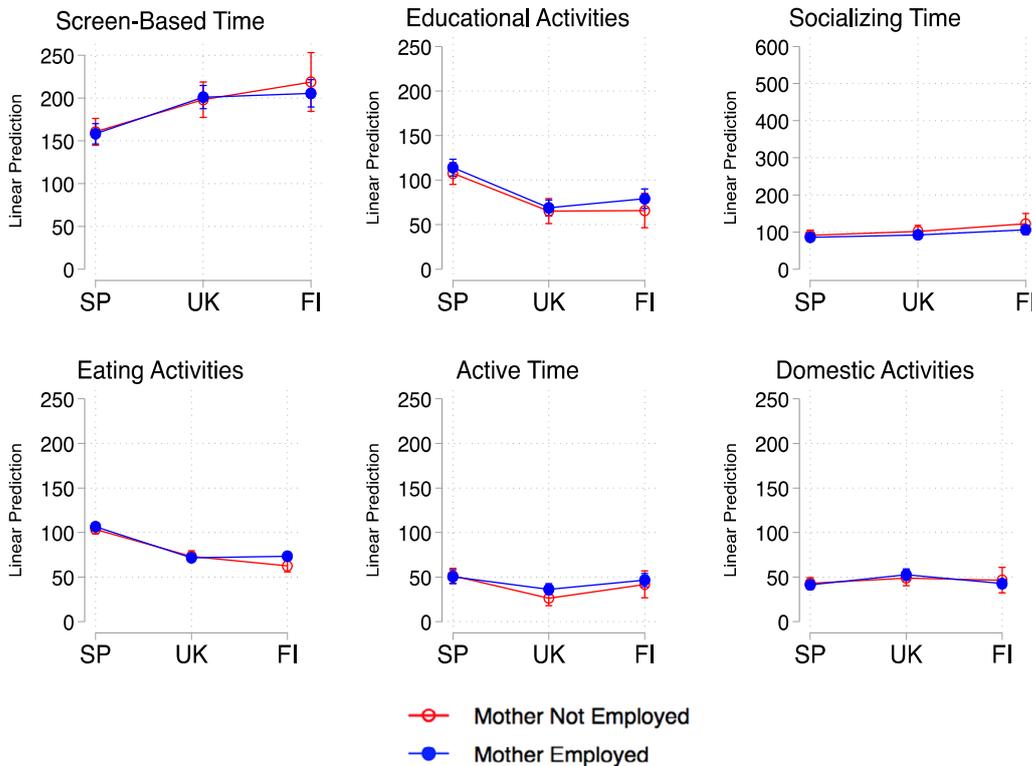
*Note.* Results are based on linear prediction models, estimating predicted values by country (confidence intervals at the 95% level are included). All models control for maternal employment, maternal education, family structure, age, gender, number of adults at home, number of children at home, day of the week, and quarter of the year. Analyses represent an average day (weekdays are counted as 1/5 and weekends as 1/2 for an average full week of the year;  $N = 3,491$ ). SP = Spain; UK = United Kingdom; FI = Finland.

FIGURE 2. PREDICTED VALUES. CHILD TIME USE: COUNTRY INTERACTIONS WITH MATERNAL EMPLOYMENT.

Child Daily Minutes with Parents, Others, Alone, at School and Sleeping by Maternal Work



Child Daily Minutes in Specific Activities by Maternal Work

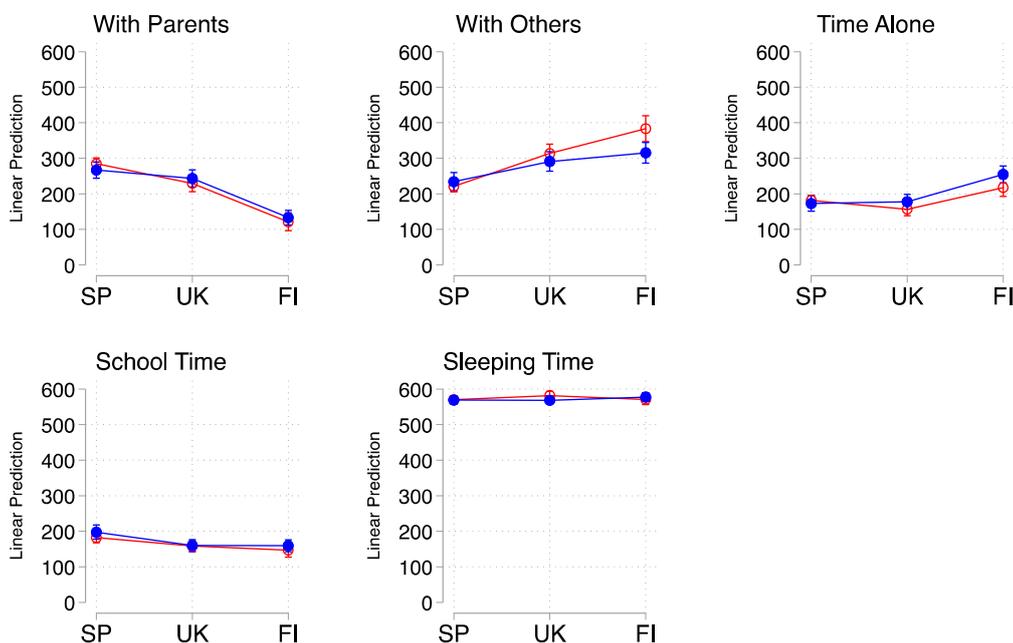


○— Mother Not Employed  
●— Mother Employed

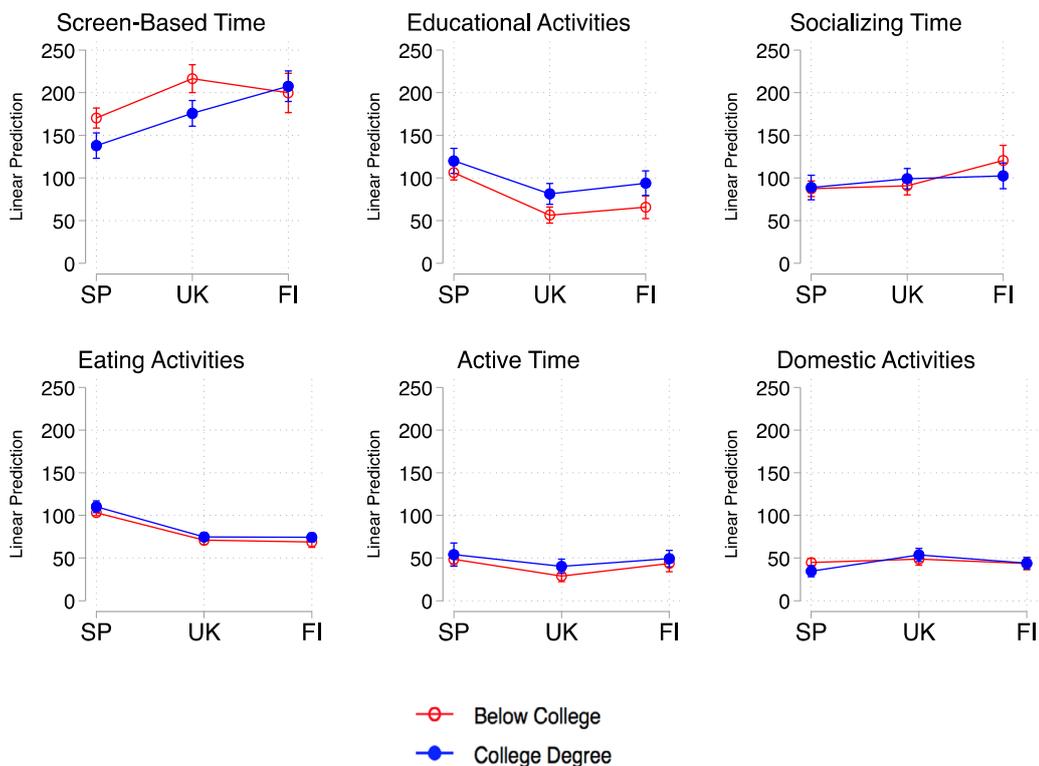
Note. Results are based on linear prediction models that estimate interaction effects between “country” and “maternal work” (confidence intervals at the 95% level are included). All models control for maternal education, family structure, age, gender, number of adults at home, number of children at home, day of the week, and quarter of the year. Analyses represent an average day (weekdays are counted as 1/5 and weekends as 1/2 for an average full week of the year; N = 3,491). SP = Spain; UK = United Kingdom; FI = Finland.

FIGURE 3. PREDICTED VALUES. CHILD TIME USE: COUNTRY INTERACTIONS WITH MATERNAL EDUCATION.

Child Daily Minutes with Parents, Others, Alone, at School and Sleeping by Maternal Education



Child Daily Minutes in Specific Activities by Maternal Education



Note. Results are based on linear prediction models that estimate interaction effects between “country” and “maternal education” (confidence intervals at the 95% level are included). All models control for maternal employment, family structure, age, gender, number of adults at home, number of children at home, day of the week, and quarter of the year. Analyses represent an average day (weekdays are counted as 1/5 and weekends as 1/2 for an average full week of the year; N = 3,491). SP = Spain; UK = United Kingdom; FI = Finland.

activities (with a 32-minute gap; 95% CI levels), but the educational gradient for educational activities was more modest (14-minute gap). Interestingly, differences by maternal education in Finland were nonexistent for screen-based activities, yet a strong robust educational gradient applied to educational activities in Finland (28-minute gap). Regarding the “with-who” set of activities (upper part), parent–child time did not differ by education in any of the three countries. This finding was interesting given that parent–child time with young children has been found to be highest among the highly educated (Altintas, 2016; Gracia, 2014). Finally, and interestingly, only in Finland did we see educational differences in time with others and alone. When compared with children with high-educated mothers, Finnish children with less-educated mothers spent close to 1 hour more with others (95% CI levels) and about 40 minutes less in activities alone.

#### *Robustness Checks*

We conducted three sets of robustness checks. First, we rechecked our within-country analyses. We ran analyses for a sample of families with employed mothers only: The results remained stable when looking only at children with employed mothers. Similarly, within-country differences in child time use remained low when using alternative categorical and continuous measures of maternal employment (results not shown). Also, we conducted analyses by dividing our sample into two groups, differentiating between the 50% most-educated mothers and the other 50% least educated at the country level, as in Guryan, Hurst, and Kearney (2008). Educational differences in child time use remained stable. We further examined various categorizations of education, including combined paternal and maternal educational levels. Analyses were again consistent with our main results (results not shown).

Second, we conducted seemingly unrelated regressions (SUR) to estimate multiple models of times spent on interrelated activities (Chesley & Flood, 2016; Gracia & Kalmijn, 2016; Hook, 2004). The full SUR (not shown) were consistent with the full ordinary least squares models of Table A2 and Table A3. The SUR matrix correlation of residuals (Table S1 in the Appendix) showed interesting activity trade-offs: Time with others strongly competed with

parent–child time ( $r = -.52$ ) and social time with exercising ( $r = -.22$ ) and educational time ( $r = -.22$ ). Interestingly, some time use trade-offs were highest in Finland, especially regarding solo time against time with “others” ( $r = -.62$ ) and socializing time against screen-based time ( $r = -.31$ ).

Third, we examined country interactions with (a) child age and (b) day of week (see Figures S1 and S2 in the Appendix). The age gradient in child time use was salient and generally stable across the three countries. Interestingly, for time with others, age differences in Finland were small, but in the United Kingdom and Spain younger children spent substantially less time with others than older children. Meanwhile, age gaps in socializing did not apply to Spain, but they did apply to Finland, and especially the United Kingdom. Furthermore, models differentiating between weekdays and weekends showed that country differences by day of week were quite stable across countries. We found some interesting variations by day of week in Spain, the only country where children spent higher amounts of time eating, doing domestic work and exercising on weekends, compared to weekdays.

#### DISCUSSION

This study is, to our knowledge, the first exhaustive time-diary analysis of children’s and adolescents’ daily activities from a cross-country approach. Using rich harmonized time-diary data for a pooled sample of children aged 10 to 17 from Finland, Spain, and United Kingdom (2009–2015), our study reveals that national contexts strongly shape children’s daily activities.

Our results show clear between-country differences in child time use. After controlling for multiple demographic and socioeconomic factors, Finnish children spent 127 minutes with parents compared with 235 minutes in the United Kingdom (85% difference) and 280 daily minutes in Spain (120%). By contrast, Finnish children spent 236 minutes per day on activities alone, clearly more time than children in Spain (30% difference) and the United Kingdom (43%). Finland was also where children spent more time with others—and without parents’ presence—with a total of 349 daily minutes compared with 305 minutes in the United Kingdom (14% difference) and 222 minutes in Spain

(57%). Interestingly, Spanish children spent more time at school (187 minutes), adding 30 minutes more than children in Finland and the United Kingdom (18%–23% difference). In “family-oriented” Spain, children spent the highest time eating (e.g., home dinners), but also in educational activities outside school, adding 35 to 46 minutes more than children in Finland and United Kingdom in the same activities (31%–41% difference). Meanwhile, in more “individualistic” Finland and the United Kingdom, children were active in screen-based activities, adding 49 to 41 minutes more than children from Spain on the same screen-based activities (i.e., television, mobile phone use, video games; 31%–26% difference), and yet, interestingly, children from Finland were the most active in socializing activities (111 minutes per day), adding more than 20 daily minutes to these activities in relation to Spanish children (26% difference).

Findings showed smaller within-country variations in children’s time use, with similarities across countries, but also with some interesting country variations. For maternal work, child time use was generally unaffected by maternal employment in all three countries. Only in Spain we found that children with employed mothers spend substantially less time with parents than children with nonemployed mothers (17% gap), confirming the high work constraints of Spanish families previously documented (Gracia & Kalmijn, 2016). For maternal education, we found larger variations in child time use. Children with high-educated mothers spent more time in educational activities (about 30% more) and less time in screen-based activities (about 15% less) than children with less-educated mothers consistent with previous single-country studies (Gracia & García-Román, 2018; Mullan, 2009; Wight et al., 2009). These educational gaps were strong in the United Kingdom and also (albeit more modest) in Spain. In Finland, we found a strong educational gradient for the child educational activities, but interestingly not for screen-based time. Finally, we did not find educational gradients in parent–child time, suggesting that educational inequalities in total parent–child time in young children (Altintas, 2016; Gracia, 2014) do not apply to older children and adolescents.

Our results have important implications for cross-national research on families and children. Consistent with the cross-cultural hypothesis

(H1), children from Finland, Spain, and the United Kingdom differ significantly in their time use, even when controlling for demographic and socioeconomic factors. We claim these country differences in child daily activities are shaped by distinct country-level cultural logics, capturing variations in family relations, parenting ideologies and attitudes to individuals’ role in society. Family-oriented values are strongly anchored in Spain, where we found the highest time in parent–child activities. By contrast, in Finland, a country with a stronger presence of individualization in shaping family and community life, and where parenting ideologies support child development outside the household, children spent more time without parents, either alone or with others. The United Kingdom partly reflects a privatized parenting culture, where parent–child time is relatively high (yet lower than in Spain), but also where family organization promotes child activities with nonparent “others” (such as in Finland). These cross-cultural differences, however, are not straightforward. The results do not mean that Scandinavian children are less “social” than children in Southern Europe. Even if Finnish children spent more time alone, they also spent more time with “others” (excluding parents) and in actual socializing activities when compared with Spanish children. Our findings rather suggest that differences in “sociability” have much to do with the nature of the activity, depending on whether social activities occur more with parents (such as in Spain) or without parents (such as in Finland).

The sociostructural hypothesis (H2) received less support in our study, especially with respect to between-country variations in child time use. Indeed, after controlling for socioeconomic and demographic factors, the Scandinavian and Southern European divide in children’s time use persisted markedly. Also, the fact that maternal employment was generally not associated with children’s time use, with the sole exception of Spain regarding parent–child time, suggests that employment status helps little to predict daily activities among children aged 10 to 17, at least in the three countries of our study. Yet parental education was globally associated with more time in various developmental activities (e.g., reading, cultural activities, homework), and this pattern was generally visible across the three countries of study. The combination of (non)material resources and child-centered

parenting norms (Gracia, 2015; Lareau, 2003) seems to globally impact children's activities with developmental implications and across distinct policy and cultural regimes. This contributes to previous scholarship discussing if social inequalities in parenting involvement differ across national contexts (Gracia & Ghysels, 2017; Sayer et al., 2004).

Our study has global implications for debates on families and children. This study contributes to contemporary scholarship on national identities, modernization, and globalization (Beck, Giddens, & Lash, 1994; Beck & Lau, 2005). Late modernization theorists have discussed the growing relevance of individualization and globalization in society, occurring in parallel with an era of increasing diversity in terms of racial, ethnic, linguistic, or religious backgrounds. This approach seems to challenge the idea that there are "country-level" effects on families, with a diminishing power of "nations" in shaping the daily lives of individuals, families, or communities. Our results on children's daily activities indeed show some global patterns. For example, educational gradients in children's time use show similarities across our three countries of study. Also, maternal employment status seems to globally have quite little importance in how teenagers spend time in daily activities. Still, our findings for Finland, Spain, and the United Kingdom show that national contexts, which capture the way societies arrange family life, parent-child relations, and children's autonomy, do play a key role in influencing how families and children organize their daily lives and activities. We hope to see further related research on family relations and children's daily activities discussing the role of globalization, as opposed to local or national contexts, in shaping the daily activities of families and children.

To conclude, our study has persuasively suggested that the country level is of central importance to understand children's daily lives and activities with implications for their future lifestyles, development, and identity formation. Future studies should further explore how cultural and structural factors, which are interrelated, affect child time use. To do so, we will need multilevel time-diary data containing information on children's attitudes connected to micro-level and macro-level measures, today unavailable. This approach would complement well our detailed analysis of children's time use, in which we have adopted a small-*N* country

comparison. We hope our study will inspire new theoretical and empirical advancements around the key question of how family relations and children's daily activities differ across societal contexts.

#### NOTE

An earlier version of this article was presented at a regular session of the European Population Conference (June 6-9, 2018; Brussels, Belgium). The authors thank the session participants for their excellent feedback on the earlier study version.

#### SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

**Appendix S1.** Supplementary Information.

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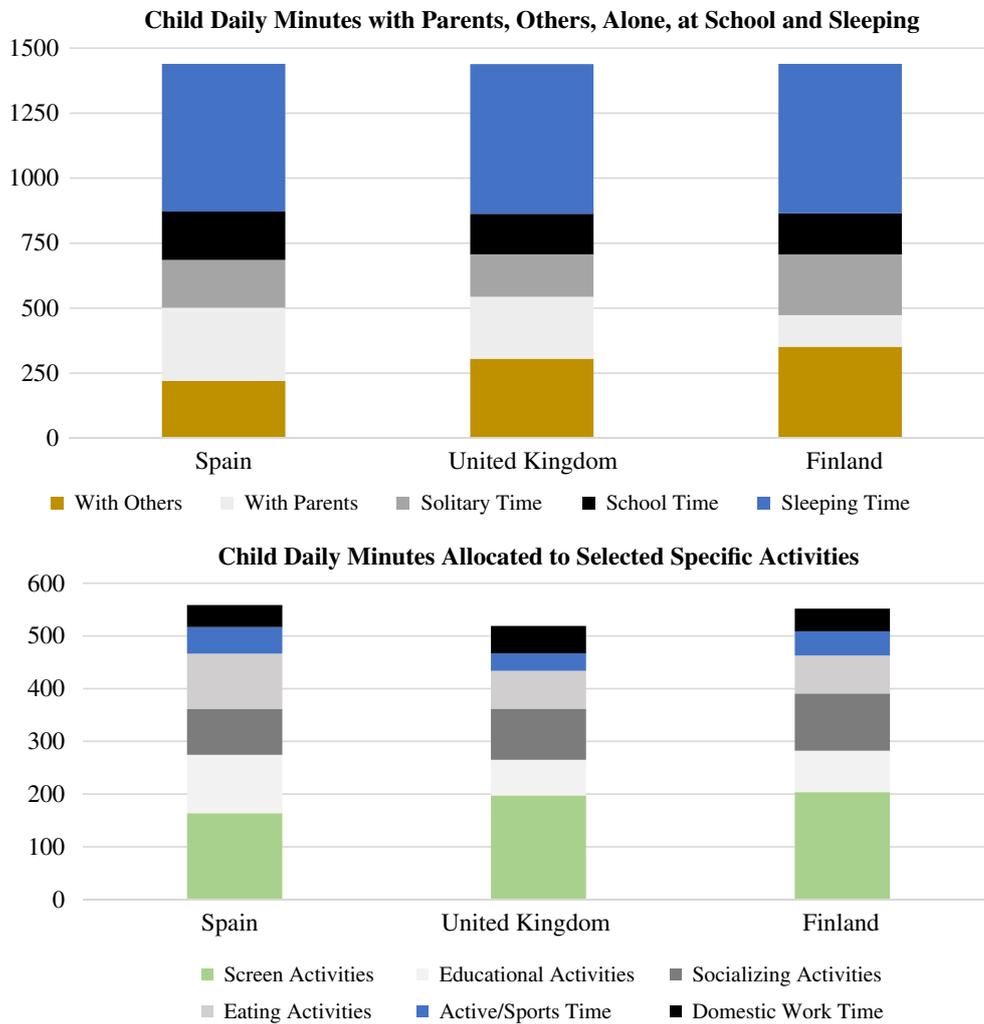
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APPENDICES

FIGURE A1. AVERAGE DISTRIBUTION OF CHILDREN’S TIME USE ACROSS NATIONAL CONTEXTS.



*Note:* The two subpanels of the figure represent the daily average minutes allocated by children on an average day, week, and month of the year, with weekdays and weekends equally represented across all three countries. The upper figure adds five activities that sum 1,440 minutes (24 hours of a random day) in all three countries. The bottom figure presents our selected non-school activities, leaving out school time and sleeping, as well as personal care, commuting, passive leisure, and activities coded as “others,” which are not covered in this study.

Table A1. Child Time Use Activity Coding

General activities	Activities included	Location
Time with parents	Any time in presence of at least one parent	Outside school
Time with others	Any time without parents and with others	Outside school
Time alone	Any time without presence of others	Outside school
School time	Any time at school	At school
Sleeping time	Any time coded as sleeping	Outside school
Specific activities	Activities included	Location
Screen time	Computing programming, internet use, computer games, watching TV, video watching	Outside school
Educational Time	Reading, study, going to theater, opera, concerts or cinema, library time, doing music, dance, theater, artistic activities	Outside school
Socializing activities	Socializing with family, celebrations, sports events, cultural visits, religious activities, volunteering	Outside school
Eating time	Eating, drinking	Outside school
Active time	Physical activity and sports practice	Outside school
Domestic activities	Food preparation, washing and cleaning house, ironing, shopping, gardening, repairs of dwelling, shopping, caring for children and adults,	Outside school

Table A2. Ordinary Least Squares: Child Daily Minutes With Parents, With Others, Alone, at School, and Sleeping

	Time with parents	Time with others	Time alone	School time	Sleeping time
United Kingdom	-44.96*** (11.59)	83.13*** (12.57)	-16.25 (9.91)	-28.52** (8.77)	6.61 (5.78)
Finland	-153.08*** (11.43)	127.86*** (14.59)	54.28*** (11.01)	-34.89*** (9.25)	5.83 (6.06)
Single mother household	-59.23*** (12.18)	35.37* (14.37)	4.15 (11.19)	7.16 (9.27)	12.55+ (6.78)
Mother's College educated	-1.23 (9.61)	-23.74* (11.84)	16.87+ (8.97)	11.08 (7.16)	-2.97 (5.09)
Mother works 1-30 weekly hours	-4.83 (12.76)	-2.56 (14.61)	6.66 (11.17)	6.22 (9.87)	-5.50 (6.71)
Mother works 31-37 weekly hours	-15.26 (15.71)	7.99 (19.04)	15.34 (14.88)	-3.74 (11.70)	-4.33 (8.14)
Mother works >37 weekly hours	-31.27* (12.39)	22.62+ (13.73)	-1.28 (10.95)	12.08 (9.54)	-2.16 (6.21)
Age	-19.58*** (1.86)	7.95*** (2.18)	21.34*** (1.64)	-1.45 (1.34)	-8.26*** (1.00)
Girl	2.32 (8.60)	6.41 (9.78)	13.06+ (7.26)	-10.09 (6.16)	-11.69** (4.40)
Weekend	88.19*** (7.51)	43.00*** (8.04)	19.13** (6.19)	-225.16*** (5.37)	74.83*** (4.13)
2nd quarter (April-June)	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)
3rd quarter (July-September)	10.96 (12.13)	15.87 (13.67)	23.62* (11.23)	-53.91*** (9.21)	3.46 (6.16)
4th quarter (October-December)	21.54+ (12.80)	70.06*** (15.83)	-0.12 (10.82)	-107.89*** (9.54)	16.42* (6.93)
Number of adults (>17 years)	2.02 (11.70)	-11.99 (12.80)	7.01 (10.44)	-13.03 (9.27)	15.99** (5.68)
Number of children (<17 years)	-18.02** (6.97)	10.11 (7.36)	12.13+ (6.27)	-0.63 (4.99)	-3.60 (3.68)
Intercept	563.99*** (27.22)	18.28 (29.02)	97.11*** (21.74)	299.45*** (20.22)	299.45*** (20.22)
Observations	3,491	3,491	3,491	3,491	3,491
Adjusted R <sup>2</sup>	0.191	0.095	0.126	0.391	0.138

Clustered standard errors in parentheses.

+*p* < .1. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Table A3. Ordinary Least Squares: Child Daily Minutes in Specific Activities

	Screen Time	Education Time	Social Time	Meals Time	Active Time	Domestic Work
United Kingdom	41.09*** (8.01)	-46.41*** (5.75)	6.91 (5.97)	-33.41*** (2.59)	-17.51*** (4.13)	9.03* (3.59)
Finland	49.45*** (9.21)	-35.00*** (6.55)	23.10** (7.28)	-34.70*** (2.72)	-5.52 (5.00)	2.01 (3.31)
Single mother household	3.46 (8.42)	-9.24 (6.24)	-2.22 (5.87)	-7.99** (2.70)	-9.42** (3.64)	-3.08 (3.73)
Mother College educated	-24.97*** (7.17)	21.48*** (5.14)	-0.16 (5.33)	3.92+(2.24)	6.13+(3.68)	-3.01 (2.99)
Mother works 1-30 weekly hours	-3.49 (8.84)	7.19 (6.58)	1.56 (6.97)	1.24 (2.75)	1.46 (4.41)	0.31 (3.74)
Mother works 31-37 weekly hours	16.97 (11.92)	2.16 (7.66)	-20.52** (7.69)	0.56 (3.52)	4.50 (5.37)	8.96+(5.15)
Mother works >37 weekly hours	-1.26 (8.88)	-2.20 (6.37)	-6.15 (6.75)	1.90 (2.65)	2.01 (4.45)	-1.12 (3.83)
Age	5.27*** (1.37)	4.51*** (0.98)	-4.32*** (1.11)	-0.69+(0.40)	-0.96 (0.67)	1.55** (0.58)
Girl	-41.45*** (6.05)	21.92*** (4.27)	9.67+(5.09)	-1.42 (1.88)	-16.33*** (3.13)	25.71*** (2.65)
Weekend	62.37*** (5.27)	-9.81* (3.84)	57.11*** (5.19)	8.72*** (1.79)	17.79*** (3.29)	19.67*** (2.69)
2nd quarter (April-June)	-5.06 (8.65)	17.21* (6.84)	16.50* (6.96)	4.03 (2.85)	12.56** (4.22)	7.36* (3.53)
3rd quarter (July-September)	21.95* (9.75)	-11.80+(6.35)	31.84*** (7.71)	1.65 (2.83)	21.63*** (5.08)	20.59*** (3.94)
4th quarter (October-December)	2.87 (8.82)	4.62 (6.04)	-5.66 (6.63)	-1.68 (2.70)	-2.20 (3.83)	3.43 (3.49)
Number of adults (>17 years)	5.15 (4.40)	4.93 (3.01)	0.01 (3.51)	-1.81 (1.35)	-0.10 (2.49)	-1.92 (1.93)
Number of children (<17 years)	-2.50 (3.87)	1.02 (2.78)	0.46 (2.95)	-1.16 (1.15)	-1.19 (1.77)	-0.70 (1.66)
Intercept	86.61*** (25.31)	21.12 (16.31)	118.51*** (19.22)	117.83*** (7.34)	59.75*** (13.09)	1.79 (9.46)
Observations	3,491	3,491	3,491	3,491	3,491	3,491
Adjusted R <sup>2</sup>	0.092	0.082	0.072	0.135	0.050	0.074

Clustered standard errors in parentheses.

+ $p < .1$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .