Policy as normative influence?

On the relationship between parental leave policy and social norms in gender division of childcare across 48 countries

Abstract

In the present work, we addressed the relationship between parental leave policies and social norms. Using a pre-registered, cross-national approach, we examined the relationship between parental leave policies and the perception of social norms for the gender division of childcare. In this study, 19,259 students (11,924 women) from 48 countries indicated the degree to which they believe childcare *is* (descriptive norm) and *should be* (prescriptive norm) equally divided among mothers and fathers. Policies were primarily operationalized as the existence of parental leave options in the respective country. The descriptive and prescriptive norms of equal division of childcare were stronger when parental leave was available in a country—also when controlling for potential confounding variables. Moreover, analyses of time since policy change suggested that policy change may initially affect prescriptive norms and then descriptive norms at a later point. However, due to the cross-sectional nature of the data, drawing causal inferences is difficult.

152 words

Keywords: social norms; policy, parental leave; childcare; gender inequality

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The fundamental influence and importance of social norms on human behavior has been extensively addressed in past interdisciplinary social science research (Legros & Cislaghi, 2020). However, surprisingly little empirical research has been dedicated to understanding how social norms evolve and change. Changes in norms are important because they represent shifts in individuals' understanding and interpretation of their society. In the present work, we focus on public policy as one important factor in shaping social norms. We argue that public policies can signal what is desirable or undesirable within a society and can influence individuals not only with the force of legal penalties but also by shaping and promoting social norms. We examined this idea in 48 countries by investigating the relationship between parental leave policies and young adult's perception of social norms for the gendered division of childcare among heterosexual couples. In this way, the present study also contributes to the understanding of how to close the persistent gender gap in childcare.

The Power and Evolution of Social Norms

Social norms influence human behavior powerfully in many aspects of everyday life (e.g., Cialdini et al., 1991). For example, social norms direct us to congratulate people on their birthdays or say thank you when someone does us a favor; and they proscribe that we do not shout at our supervisors, nor talk badly about recently deceased people. The importance of social norms as determinants of behavior is outlined in several prominent psychological models, such as the theory of planned behavior (Ajzen, 1991) and social role theory (Eagly & Wood, 2012), and a large body of empirical psychological research demonstrates that social norms are important antecedents of behavioral intentions (e.g., Ajzen, 1991; Armitage & Conner, 2001; Rivis & Sheeran, 2003; Van Kleef et al., 2019).

Due to the popularity of the study of social norms across different research fields, there is variation in the definition of social norms (Chung & Rimal, 2016; Hogg, 2010; Horne & Mollborn, 2020; Legros & Cislaghi, 2020). We follow Cialdini and Trost (1998), who define social norms as "rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws" (p. 152). Accordingly, social norms can communicate what others commonly do (i.e., *descriptive norms*) as well as what others commonly approve or disapprove of (i.e., *prescriptive norms*; also called injunctive norms). That is, descriptive norms convey information about what most members of a group do in given situations, whereas prescriptive norms convey information about how members of a group should behave in given situations (Goldstein & Cialdini, 2007; Hogg & Reid, 2006).

One of the major unresolved questions in the social norm literature refers to how social norms evolve (Legros & Cislaghi, 2020). Whereas some scholars theorize that behavior changes first and norms follow (e.g., Morris et al., 2015), others suggest that norms change first and behaviors follow (e.g., Mahmoud et al., 2014). In our view, assuming mutual influence between these two variables is the most plausible: the more frequent a behavior becomes in a certain population, the more individuals will believe there is a norm, and the more individuals believe in a norm, the more likely they are to comply with it. However, as other researchers have noted, there is little *empirical* work on how, precisely, norms evolve (e.g., Bicchieri & Mercier, 2014; Cialdini & Trost, 1998).

Policy as a Normative Signal

One of the basic mechanisms proposed to underlie norm dynamics involves policymaking (e.g., Morris et al., 2015; Sunstein, 1996). Public policy constitutes a series of attempts made by a government to address a public issue by instituting laws and regulations. As such, public policy is presumed to influence individuals by motivating them to avoid penalties they may incur when law enforcement agents are present. Beyond punishing

undesirable behavior, legal scholars have proposed that policies have an *expressive function* that influences individuals by signaling what is desirable or undesirable within a specific society: policies express underlying social norms and values and attach a certain normative meaning or interpretation to a behavior (McAdams, 2000; Posner, 2000; Sunstein, 1996). Therefore, it has been claimed that the links between cultural and individual values and norms are mediated through societal institutions (Schwartz, 2014). In this view, governing institutions are an important source for shaping social norms (Kinzig et al., 2013; Tankard & Paluck, 2016).

Consistent with this view, research has shown that public policies can shape social norms in domains of smoking bans (e.g., Hamilton et al., 2008; Luís & Palma-Oliveira, 2016; Orbell et al., 2009), renewable energy (Syropoulos et al., 2024), and COVID-19 lockdowns (Galbiati et al., 2021). Similarly, in two pre-registered studies—an experimental study (N = 1,673) and a longitudinal time-series study (N = 1,063)—Tankard and Paluck (2017) found stronger social norms toward support for marriage equality after a ruling from the U.S. Supreme Court in favor of same-sex marriage. Furthermore, in a natural experiment (N = 437), Eisner et al. (2021), found that informing Swiss participants about a new policy legalizing stepchild adoption decreased perceived societal disapproval of same-sex parenting compared with participants not informed about the policy.

In the present work, we moved beyond previous research on policy and social norms by having used a large sample in an extensive cross-national design. With this design, we were able to isolate how cross-national variation in policies relates to variation in social norms across different nations, societies, and cultures. To advance theorizing, we explored the idea that public policy decisions can instantly signal what (the majority thinks) others should do (prescriptive norm) (immediate effect) or change people's behavior over time (distal effect), which then in turn changes and signals what people commonly do (descriptive norm).

The Case of Unequal Childcare Division

Although both fathers and mothers in Western societies have been spending more time with their children in recent decades, fathers' (expected) contributions to the total amount of time parents spend on childcare among partners in women/man dyads remain rather limited (e.g., Dotti Sani, 2020; Dotti Sani & Treas, 2016; Pailhé et al., 2021; Steinbach & Schulz, 2022; Wei 2020). Using the same dataset as in the present work, Olsson et al. (2023), for example, found that across 37 countries, women intended to take longer leave than men in all countries. Furthermore, fathers' lower engagement in childcare has concerning consequences such as lower career opportunities for women and marital dissatisfaction among couples (e.g., Carlson et al., 2016; Croft et al., 2019), and lower well-being for both fathers and their children (Meeussen et al., 2020). Existing social norms about gender roles likely play a major role in explaining this gender gap in childcare, as different tasks and behaviors are generally expected of fathers and mothers (Eagly & Wood, 2012). Traditionally, gender norms favor mothers for childcare tasks: women are expected to be communal (i.e., caring, warm, social, kind) but not too dominant (i.e., assertive, bossy, arrogant), while men are expected to be agentic (e.g., competent, independent, rational) but not too weak (e.g., passive, timid, dependent) (Bosson et al., 2022; Burgess & Borgida, 1999; Croft et al., 2015; De Visser & McDonnell, 2013; Prentice & Carranza, 2002; Rudman & Fairchild, 2004). To reduce this gender gap in childcare, it is thus important to understand how social norms upholding a traditional gender division of childcare can be changed. To do so, we investigate a large selection of countries with varying gender inequality in childcare and varying parental leave policies. To focus on the relationship between parental leave policies and norms, we do not examine the actual leave that (new) fathers take (as this is a different question about whether such policies are effective in incentivizing behavior) or on people's intentions to take care of their children (for this, see Olsson et al., 2023). Rather, we examine the relationship between parental leave policies and young people's estimates of current gender norms. Note that some leave policies are written exclusively for one parent whereas other leave policies are written

to either parent. In the present work, we refer to parental leave as being available to either parent.

According to the proposed normative power and expressive function of policy, one fruitful strategy for reducing the gender gap in childcare may involve parental leave policies, as they have been proposed to not only incentivize actual childcare behavior, but to also reinforce or change existing gender norms (e.g., Meeussen et al., 2020). Studies on social attitudes support this notion. In a longitudinal study including data from nine countries, Omidakhsh et al. (2020) found that changes to parental leave policy that incentivize or encourage fathers to take time off to care for their children corresponded with changes in attitudes towards women's equality in the workplace. Furthermore, a study showed that grandparents whose son had a child after a parental leave reform in Germany in 2007 (including income-dependent compensation for taking leave, and two of 14 months reserved solely for the father) had more positive attitudes towards nontraditional gender roles compared to grandparents whose son had a child shortly before the reform (Unterhofer & Wrohlich, 2017). While personal attitudes are internally motivated judgements about something (Fishbein & Ajzen, 1975), social norms, instead, are beliefs about what other people do and approve of. In contrast to the mentioned studies on attitudes (Omidbakhsh et al., 2020; Unterhofer & Wrohlich, 2017), the present research explicitly assesses social norms—that is, gender norms regarding childcare division.

The Present Research

In the present work, we argue that public policy can have an expressive function and can influence behaviors not only with the force of legal penalties or financial incentives, but also by shaping and promoting social norms. We postulate that the normative influence of public policy decisions can be *immediate* by instantly signaling what (the majority thinks) others should do (prescriptive norm) or *distal* by changing people's behavior, which in turn changes and signals what people commonly do (descriptive norm).

Policies vary across nations and cultures. With our large sample of 48 countries, we have a unique opportunity to examine whether social norms correspond with variations in policies (i.e. a natural experiment). Specifically, we investigated the relationship between parental leave policies on the country level and the individual perception of social norms regarding childcare division between mothers and fathers. To get more insights about the potential causality of policy on social norms, we further analyzed the relevance of time since policy decisions were made. This also uncovers potential differences between descriptive and prescriptive norms (see reasoning below).

We pre-registered the investigation of several country-level predictors that refer to parental leave policies. First, and most importantly, we assumed that parental leave (i.e., leave that is available to either parent) constitutes a normative signal that equal childcare division between mothers and fathers is a socially approved option within society (prescriptive norm) and, over time, leads fathers to engage more in childcare, leading to perceptions of more equal division of childcare (descriptive norm). Accordingly, we predicted that prescriptive and descriptive norms of childcare division between mothers and fathers would be more equal in countries where parental leave is available, compared to countries where it is not (H1). Note that findings showing leave to be linked to larger gender gaps in *intended parental leave* uptake suggest the opposite effect (Boeckmann et al., 2014; Tharp & Parks-Stamm, 2021).

Second, we assumed that several aspects of the parental leave policy should be beneficial for more equal childcare division between mothers and fathers. Based on existing evidence that financial generosity of parental leave impacts men more than women (Haas & Hwang, 2019), we suggested that higher *generosity* of parental leave constitutes a normative signal that equal childcare division between mothers and fathers is a socially approved option within the society (prescriptive norm). This leads especially fathers (compared to mothers) to engage more in childcare and consequently to perceptions of more equal division of childcare (descriptive norm). Accordingly, we predicted that relatively higher generosity of parental

leave would predict stronger prescriptive and descriptive norms of equal childcare division between mothers and fathers (H2a).

We further assumed that the extent to which more leave (maternity, paternity, and parental leave) is exclusively available to mothers (vs. fathers) constitutes a normative signal that mothers are expected to take the caregiver role (prescriptive norm) and leads mothers to engage more in childcare and consequently to perceptions of more unequal division of childcare at the expense of women (descriptive norm). Accordingly, we predicted that more exclusive leave for mothers predicts weaker prescriptive and descriptive norms of equal childcare division between mothers and fathers—with mothers as primary caregiver (H2b).

Lastly, we addressed the length of parental leave. On the one hand, one could assume that longer available leave length signals that equal childcare division between mothers and fathers is a socially approved option within the society (prescriptive norm). On the other hand, the gender gap regarding intentions to take leave is consistently found to increase with longer possible leave duration (e.g., Olsson et al., 2023; Tharp & Parks-Stamm, 2021). Longer leave length may hence signal desirability of investment in childcare within traditional gender roles. In light of these contrary predictions, we hypothesized a bidirectional relationship between prescriptive and descriptive norms regarding gender equality in childcare division and the available length of parental leave (H2c).

As mentioned above, we postulated that prescriptive norms are instantly affected (immediate effect) whereas descriptive norms are especially affected over time (distal effect) after a certain policy changed. To empirically address these assumptions, we explored the effect of time since policy change, that is, since parental leave was introduced. Accordingly, we reasoned that prescriptive norms regarding gender equality in childcare division should be perceived as stronger than descriptive norms immediately after parental leave was introduced as an option. Note that this idea was not pre-registered.

To ensure the robustness of these effects, we controlled for several variables that reflect relevant societal, national, and cultural differences. These included: gender of participants (individual level), gender essentialist attitudes (individual level), having children (individual level), and Gross Domestic Product (GDP) per capita (country level). Especially gender essentialism (i.e., belief that parents' involvement in childcare is determined by fixed qualities intrinsic to women and men), and GDP per capita (i.e., measure of a country's economic health) might be confounding variables regarding parental leave policies. So, we regarded it as informative to check whether the relationship between policies and social norms holds beyond these variables.

We also pre-registered to control for egalitarianism as a cultural value in each country (i.e., cultural orientation requiring individuals to see each other as moral equals; Schwartz, 2008). However, including this variable in the models led to the exclusion of ten countries due to missing values. This means a substantial reduction of statistical power. Therefore, we decided to report the models including egalitarianism as a control factor only in the Supplemental Material on the OSF.

This research was conducted consistent with open science practices. Exclusion criteria, hypotheses, and analyses were registered prior to data analysis. Pre-registration, materials, data, and procedure are publicly available on OSF (https://osf.io/dzq3m/?view_only=fa56ce28b79248118981bee6ce4c1db6).

Method

Sample

The data used in this paper was collected as part of a large international collaborative research project aimed at understanding communal orientation in men ([blinded for peer-review]). All methods were carried out in accordance with relevant guidelines and regulations. Collaborators obtained ethical approval from their respective universities (if necessary) and collected data via a questionnaire, either online or in a laboratory. All

participants gave informed consent. Data collection started in October 2017 and ended in June 2019. The data were prepared in accordance with a pre-registered data preparation plan, excluding participants from the analyses who failed attention checks (e.g. "If you are reading this, please select three"), completed the questionnaire in less than 10 minutes, had not been socialized in the specific cultural context before the age of 15 (i.e., moved to their country of residence after age 15), and who did not fall within the age range 17-30 years. Additionally, individuals from sites that collected fewer than 6 participants were excluded from analyses as these could not be nested within sites. The final sample consisted of 19,259 participants (11,924 identified as women, 7078 identified as men, 257 identified as non-binary; M_{age} = 20.54, SD = 2.38) across 123 sites and 48 countries (see Table 1).

Insert Table 1 here

Procedure and Instruments

The data were collected using a 45-minute survey which was completed by participants in the language of instruction at their university. Only relevant items for the present analyses will be described here (for a complete list, see: https://osf.io/rwxcj/?view_only=35deb74b4ddc49958bd7001a0064431d).

Outcome Variables

Prescriptive Norm. Individual perceptions of prescriptive norms regarding division of childcare were assessed using one item: "How much of the childcare (taking care of children, spending time with them and fulfilling their physical and psychological needs) do others in (country) think mothers and/or fathers should do, respectively?" This was rated on a scale from 0 (*father should do all*) to 100 (*mother should do all*); that is, a value of 50 means equal childcare division.

Descriptive Norm. Individual perceptions of descriptive norms regarding childcare division were assessed using one item: "How much of the childcare (taking care of children, spending time with them and fulfilling their physical and psychological needs) do mothers and/or fathers do, respectively?". This was rated on a scale from 0 (*father does all*) to 100 (*mother does all*); that is, a value of 50 means equal childcare division.

Policy Predictors (Country Level)

Parental Leave Availability. We coded whether parental leave available to either parent was available in a country (yes = 1; no = 0). Data were obtained from the International Labour Organization (2014) report. Of the 48 countries, parental leave was available in 30 countries (62.5%; n = 13,483; see Table 1).

Financial Generosity of Parental Leave. An index was computed to capture the generosity of leave available to both mothers and fathers in each country (see Olsson et al. 2023). This index is the duration of parental leave (in weeks) multiplied by the rate of compensation (percentage of earnings prior to leave). The resulting indicator represents the number of weeks of 100 percent income (e.g., 10 weeks compensated at 80% would be 8 weeks). Data were obtained from the International Labour Organization (2014) report (range: 0 to 78 weeks). Values were grand mean centered.

Gender Imbalance in Exclusive Leave. Following the procedure of Olsson et al. (2023), an index was computed to capture the ratio of how much of the parental leave is exclusive to mothers relative to fathers in each country. The index is calculated as the duration of maternity leave (in days) + duration of parental leave (in days) that are exclusively reserved for mothers – the duration of paternity leave (in days) – duration of parental leave (in days) that are exclusively reserved for fathers. Positive scores indicate more unequal leave policies (in favor of the mother). Data were obtained from the International Labour Organization (2014) report (range: –10 to 283 days) and grand mean centered.

Available Parental Leave Length. Available leave represents the total amount of leave (in weeks) that is available to either parent (i.e., no part of this leave is exclusive to mothers or fathers). Data were obtained from the International Labour Organization (2014) report (range: 0 to 156 weeks) and was grand mean centered.

Introduction of Parental Leave Availability. According to the available data from the International Labour Organization (2014), we coded countries with no parental leave available, countries that had parental leave available since 2013, and countries that had parental leave since 1994. Only data for these dates were reported in the International Labour Organization (2014).

Control Predictors (for Robustness Checks Only)

Gender of Participants. Gender was measured by the item: "What best reflects your gender?". Possible responses: "male" (coded as 1), "female" (coded as 0) and "neither best reflects my identity".

Gender Essentialist Attitudes. Gender essentialist attitudes were assessed on the individual level with three items proposed by Gaunt (2006): "Mothers are instinctively better caretakers than fathers", "Mothers are naturally more sensitive to a baby's feelings than fathers are", and "In terms of childcare, fathers have to learn what mothers are able to do naturally". Response options ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). In an internal consistency calculation of the three items, all countries showed a Cronbach's Alpha of $\geq .70$, so a composite score of the three items was computed (as specified in the pre-registration for data cleaning). Only one country (Ethiopia) achieved a value $< .55$ and was therefore excluded from robustness checks. Values were grand mean centered (Enders & Tofighi, 2007).

Having Children. Whether participants have children was assessed using the item: "In your future, do you expect you will have children?", where the response "I already have a child/children" was coded as 1 and all other answers were coded as 0.

Gross Domestic Product (GDP) Per Capita. Although not pre-registered, we decided to additionally control for countries' GDP (per capita) as a comprehensive measure of economic performance since this variable has been found to be linked to sociopolitical developments (Korotayev et al., 2018). We opted to use GDP values from 2017, because our data collection started in 2017. Values ranged from about $US 767 (Ethiopia) to 80.189 $US (Switzerland) per capita.

Data Analyses

Data analyses followed the pre-registered protocol (except where noted). We first checked the normality distribution and skewness of the predictor variables. Financial generosity (skewness = 2.22), gender imbalance in exclusive leave (skewness = 1.52), and available leave length (skewness = 1.19) were right-skewed and non-normally distributed. Therefore, we used Spearman's rank-order correlations when calculating bivariate correlations between the predictor variables and the perceived descriptive and prescriptive norm. For robustness checks, we further recoded these three continuous variables into ordinal variables and re-ran the regression models. We ran linear-mixed models (LMM) by nesting individual data within sites and within countries. Random effects for sites and countries were included in the models. Separate models were used for the prescriptive and the descriptive norm measures. The control predictors were only included for the robustness checks (not the main analyses). All predictor variables were entered as fixed factors. Due to a likely confound between the leave availability and the other three main predictors, we ran separate models (LMM 1: leave availability as main predictor; LMM 2: financial generosity, gender imbalance in exclusive leave, and available leave length as continuous predictors).

Results

The means of the prescriptive and descriptive norms regarding the gender division of childcare (see Table 2) were significantly larger than the equality value of 50, both ps < .001, both Cohen's ds > 12.29, clearly indicating that across all countries, participants estimate the

existence of gender norms dictating that mothers should and are perceived to actually do more childcare than fathers (means across countries ranged from 57.10 to 83.00 for the prescriptive norm and 59.30 to 87.80 for the descriptive norm). Although the correlation between the two norms (see Table 2) was positive, significant, and strong (*Spearman's* ρ = .60; Cohen, 1988), the size of this effect suggests that the two norms are distinct.

Hypothesis Testing

Bivariate Correlations

Due to the right-skewed distribution of financial generosity, gender imbalance, and available leave, we calculated Spearman's rank-order correlations for all variables. Bivariate correlations can be found in Table 2. Most importantly, and as expected, there were negative correlations between both types of norms and the availability of leave, indicating that in countries that have policies providing parental leave (i.e., leave that both mothers and fathers can take) gender equality in childcare division is more promoted as a social norm. The correlation was large for the prescriptive norm (who should take parental leave, *Spearman's* ρ = –0.53), whereas the correlation for the descriptive norm was moderate (who does take parental leave, *Spearman's* ρ = –0.32). Significant negative correlations between prescriptive norms and leave policies (i.e., financial generosity and amount of available leave length) further mean that higher financial generosity and higher amount of available leave length are positively associated with the belief that gender division in childcare should be equal. For descriptive norms, only the correlation with leave availability was significant.

Insert Table 2 here

LMM 1: Parental Leave Availability

We first tested the hypothesis that prescriptive and descriptive norms of childcare division between mothers and fathers would be more equal in countries where parental leave

is available, compared to in countries where it is not (H1). In line with this hypothesis, the two LMMs using the policy variable parental leave availability as a binary predictor significantly predicted the prescriptive norm and the descriptive norm (see Table 3). Thus, in countries where parental leave is available, the norm that women should do (prescriptive norm) and actually do (descriptive norm) all the childcare was weaker and close to a more equal division. The prediction was descriptively stronger for prescriptive norms and was still significant with $p < .001$ for prescriptive norms when the descriptive norm was included in the model.

Insert Table 3 here

Adding gender, having children, essentialism, and GDP per capita as control variables to the model (LMM 1_r; see Table 4), parental leave availability as a predictor was still significant for the prescriptive norm ($p = .012$) but not significant for the descriptive norm ($p = .330$). Notably, each control variable (except having children in the model for the prescriptive norm) was a significant predictor in these robustness analyses (see Discussion).

Insert Table 4 here

LMM 2: Financial Generosity, Gender Imbalance in Exclusive Leave and Leave Length

The LMMs using the policy variables financial generosity (H2a), gender imbalance in exclusive leave (H2b), and leave length (H2c) as predictors yielded no significant predictions for the prescriptive norm nor the descriptive norm (see Table 5). When including gender, having children, essentialism, and GDP as control variables the models also did not predict the prescriptive ($ps > .107$) or descriptive norm ($ps > .509$). As a robustness check, we recoded the three continuous predictors into ordinally-scaled variables, with no change in the

significance of the models (prescriptive norm: *p*s > .116; descriptive norm: *p*s > .484). More information on the recoding procedure and detailed results can be found in the Supplemental Material on the OSF.

Since some of the policy variables were correlated, we ran separate LMMs for each of the three policy predictors. In line with H2a, financial generosity predicted prescriptive norms, $b = -0.09$, $SE\ b = 0.04$, $p = .048$. No significant effects occurred for gender imbalance in exclusive leave ($p = .162$) and leave length ($p = .163$). There were no significant predictions for the descriptive norm (all three *p*s > .386). Note that these separate analyses were not pre-registered.

Insert Table 5 here

Time Passed Since Introduction of Parental Leave

To explore immediate and distal normative effects of the introduction of parental leave, we considered the time passed since the introduction of parental leave. We categorized countries into three groups according to the data from the International Labour Organization report: no parental leave policy in place, available since 2013, and available since 1994. We used dummy-coded variables to predict childcare division norms. Results can be found in Table 6 and Figure 1.

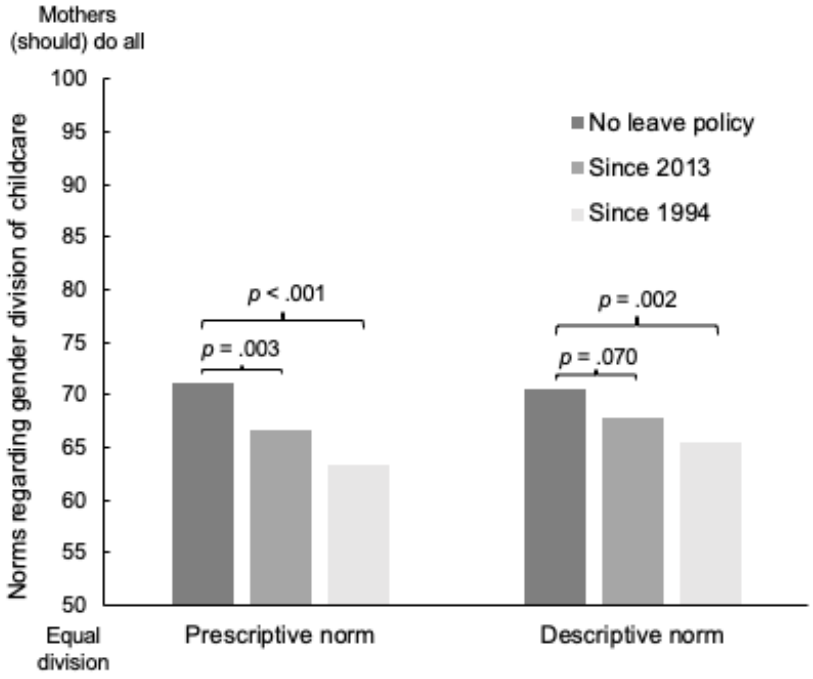
The norm that women should do (prescriptive norm) and actually do (descriptive norm) all childcare was significantly weaker when parental leave had been available since 1994 (vs. no policy in place). When parental leave was only made available in 2013, only the prescriptive norm was significantly weaker compared to when no parental leave policy was in place. The effect for the descriptive norm was not significant. That is, the effect on the descriptive norm—in contrast to the prescriptive norm—was only significant when parental leave had been introduced a longer time ago. Including gender, having children, essentialism,

and GDP as control variables yielded a significant comparison for the prescriptive norm (p = .004): the norm that women should do all childcare was significantly weaker when parental leave was available since 1994 (vs. no policy in place). The comparison between introduction of leave in 2013 and 'no policy in place' approached significance for the prescriptive norm (p = .056). No significant predictions occurred for the descriptive norm when including the control variables (ps > .210). Detailed results can be found in the Supplemental Material on the OSF.

Insert Table 6 here

Figure 1

Effects of Introduction of Parental Leave on Prescriptive and Descriptive Norms regarding Gender Division in Childcare



Discussion

Despite extensive research on the influence of social norms on human behavior (Legros & Cislaghi, 2020), little empirical work has been conducted on how these norms evolve and change (e.g., Bicchieri & Mercier, 2014). In the present work, we addressed the potential expressive function of policymaking for shaping social norms. Although this idea is widespread in the literature, it has received little attention on an empirical level (for exceptions, see e.g., Eisner et al., 2021; Tankard & Paluck, 2017). Using a pre-registered, large-sample, cross-national approach, we addressed this gap. Specifically, we examined the relationship between policy at a national level and individuals' perceptions of prescriptive and descriptive norms in the context of the division of childcare between mothers and fathers. With this study design, we were able to examine the proposed relationship across different cultural, societal, and political systems. We were also able to examine a time-relevant aspect

of this—that is, whether the relationship between polices and prescriptive or descriptive norms, respectively, differs between countries where policies were adopted earlier compared to countries where policies were adopted later.

The Relationship between Policy and Norms

First, in line with previous research, we found generally prescriptive and descriptive norms in favor of mothers doing more childcare than fathers. Importantly, however, as predicted (H1), results of the bivariate correlations and the corresponding LMM showed that in countries where parental leave is available, the norm that women should do (prescriptive norm) and actually do (descriptive norm) more childcare was significantly weaker, indicating a stronger tendency towards a more equal division. For the prescriptive norm, this relationship was weakened, but still significant in the LMM, when controlling for gender, having children, essentialism, and GDP per capita. This supports the notion that policy making in this context plays a unique role—at least for prescriptive norms. Interestingly, each of the control variables (except having children in the model for the prescriptive norm) was a significant predictor in these robustness analyses indicating stronger prescriptive and descriptive norms of equal division in childcare for a) male (vs. female) participants, b) for participants having no children (vs. having children; only for the descriptive norm), c) for individuals with weaker gender essentialist attitudes and d) for countries with higher GDP per capita. Beyond the included control variables, there are further institutional (country-level) variables that might explain the link between the availability of parental leave and norms of gender division in childcare, such as expansion of public childcare, female labor force participation or policy landscape. Future research should investigate these possible confounds.

Results of the bivariate correlations provided further support for our hypotheses: financial generosity of leave (H2a) and the available leave length (H2c) were negatively related to individuals' perceptions of the prescriptive norm. That is, higher financial generosity of leave and longer availability of leave are associated with prescriptive norms

favoring a more equal division of childcare. There was no significant correlation with gender imbalance in exclusive leave. Furthermore, financial generosity, available leave length, and gender imbalance in exclusive leave did not predict prescriptive or descriptive norms in the LMMs, when being included simultaneously. Financial generosity only predicted prescriptive norms when included as a single predictor. Thus, regarding the prescriptive norm, H2a was supported by this result and by the bivariate correlation, while H2c was only supported by results of the bivariate correlation. Taking the nested data structure into account, yielded no strong support for the influence of these variables. These null findings could indicate that these specific parental leave policies do not have a substantial impact on social norms. It could be, for example, that people are not aware of these policies and/or that they only weakly signal gender equality in childcare division (see Eisner et al., 2021). However, present null findings might also be due to low statistical power in some of the analyses (see limitations below).

Time Since Policy Change

Exploring the role of time since new leave policies were introduced (distal vs. immediate), revealed that the norms that women should (prescriptive norm) and actually do (descriptive norm) all childcare were both significantly weaker when parental leave had been available since 1994 (distal) compared to when parental leave was not available. When parental leave was available since 2013 (immediate), the prescriptive norm was significantly weaker compared to when parental leave was not available, suggesting an immediate effect on prescriptive norms whereas the effect for the descriptive norm was not significant. These results were basically not affected when taking gender, having children, essentialism, and GDP per capita into account as control variables. Taken together, these findings suggest that policymaking may more quickly affect perceptions of prescriptive norms, whereas changes in perceived descriptive norms take more time. In other words: it seems like people first interpret a new policy as a normative signal about what *should* be done, and it takes more time until

they see this reflected in what other people in their country *actually do*. Over time, policies appear to be linked to both types of norms.

Descriptive versus Prescriptive Norms

In sum, our results provide support for the expressive function of policymaking for shaping social norms. Interestingly, relationships were consistently larger and more robust for the prescriptive norm than the descriptive norm, speaking for a more immediate normative influence of public policy on prescriptive (what should be done) than descriptive norms (what is done). The present findings favor the prescriptive norm as the first norm to change rather than the descriptive norm. However, this might be restricted to the context of social issues, or childcare division and parental leave policies specifically. In addition, many scholars argue that a social norm could not become prescriptive at all unless it was descriptive initially (Morris et al., 2015). In our view, at least in the context of policymaking, assuming mutual influence between the two norms remains most plausible (Eriksson et al., 2015)—especially over time (e.g., Luís & Palma-Oliveira, 2016; Nyborg, 2003).

Practical Relevance

Besides contributing to the theoretical understanding of how social norms evolve, our findings also point to the potential power of policies for shaping and promoting behavior, beyond the force of legal penalties. These changes in perceived social norms matter because they represent shifts in individuals' understanding of their society—where it stands and where it is going. Nevertheless, for the efficient application of the expressive function of policymaking, it is important to investigate the boundary conditions for the effect of policies. For example, one could assume that some level of trust in government is necessary for the expressive function of policies and that political orientation is likely to play a crucial role (Tankard et al., 2017). Furthermore, the effect of policies on social norms might further depend on whether current policies are salient or not, or whether and how they were communicated in the public media.

Limitations

The present cross-sectional data do not allow causal inferences. Although we theoretically addressed the question of whether policymaking impacts social norm shifts, it is also plausible that existing social norms impact policymaking. For example, public opinion influences policies through political voting decisions. Nevertheless, the existence of a relationship between policy and social norms is a necessary condition for a causal effect of policy, and the present research thus makes an important step in showing this relationship. Additionally, the documented relevance of time passed since policy decisions points to a causal effect of policy on social norms. While applying a pre-post design would provide stronger support for causality (Tankard & Paluck, 2017), our data allow generalizing the relationship between policy and social norms across a large selection of countries.

On the individual level, our sample includes more than 19,000 participants. However, with only 48 cases on the country level, statistical power in the analyses is rather low (meaning a high probability of false negative errors). Thus, especially the present null-findings should be interpreted with caution. For this reason, we refrained from further (theoretically potentially insightful) exploratory subgroup analyses. One could, for example, conduct separate analyses for geographically or culturally close countries, such as European Welfare States. This exemplary subgroup would consist of 16 countries, thus, a substantially smaller sample reducing statistical power even more. Especially null-findings would be highly fragile and speculative under these circumstances. To control for cultural similarity, we pre-registered analysis including egalitarianism as a cultural value in each country (Schwartz, 2008). However, as already mentioned above, including this variable in the models led to the exclusion of ten countries due to missing values. This led to a substantial reduction of statistical power. That is, changes in the models through including egalitarianism might occur a) because of the missing values for egalitarianism in ten countries or b) because controlling for egalitarianism might have removed real shared variance because egalitarianism and

policies are affected by similar variables and affect one another. So, it remains open question whether including egalitarianism or not reveals the more accurate result.

The present work does not address actual behavior or behavioral intentions. However, parental leave policies were previously shown to have an impact here (e.g., Olsson et al., 2023). For example, longitudinal studies have shown that introducing incentives for fathers to take parental leave increases uptake in men (Jurado-Guerrero & Muñoz-Comet, 2021). Future research should thus investigate the mediating role of social norms for policy effects on actual behavior.

Generalizability is limited by the used sample of relatively young, educated participants, who likely are anticipating but not yet directly involved with the issues of childcare division and parental leave policies. We tried to address this issue by controlling for whether participants had one child or more children. This did not change our results. Besides that, investigating university students is an informative endeavor, as it allows us to better understand the decisions they will make regarding work-family divisions in the future. Moreover, young, highly educated individuals are more likely to later hold positions of power and influence policies at an organizational or national level (Meeussen et al., 2016; 2019). By gaining insight into the choices they make now, we can better understand the decisions they might make in the future when they are in a position to influence the lives of others. As a result, the perceived social norms of this group may provide insight into the development of societies.

Research on the link between policy and anti-gay (or anti-queer) attitudes debates a backlash effect in terms of greater disapproval of the issue induced by policy change—however, the evidence for a backlash effect is weak (Bishin et al., 2016; Flores & Barclay, 2016). This possibility should, however, be taken into account when investigating the effect of policy on social norms. There is also the argument that once something becomes policy, people are motivated to justify it as part of the system (e.g., Laurin, 2018). Beyond the

expressive function of policy, this could also explain why norms of equal gender division in childcare are stronger in countries where policy enables parental leave. Further research is needed to investigate the mechanisms of potential policy effects more thoroughly.

Conclusion

To our knowledge, the present work is the first large-scale cross-national approach investigating the relationship between policy and social norms. Assessing the prescriptive and descriptive norm regarding childcare division between mothers and fathers in 48 countries, we found support for a relationship between parental leave policy and these norms, indicating that introducing parental leave availability may reduce the norm that mothers should (prescriptive norm) and actually do (descriptive norm) all the childcare. Moreover, analyses of time since policy change suggested that policy change may initially first affect prescriptive norms and then descriptive norms at a later point. In sum, our findings provide (partial) empirical support for the expressive function of policy. Nevertheless, due to the cross-sectional nature of the data, the present results should be interpreted with caution and should not be understood as evidence for causal mechanisms.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Armitage, C. J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, *40*, 471–499. https://doi.org/10.1348/014466601164939

Bicchieri, C., & Mercier, H. (2014). Norms and beliefs: How change occurs. In M. Xenitidou & B. Emonds (Eds.), *The complexity of social norms* (pp. 37–54). Springer.

Bishin, B. G., Hayes, T. J., Incantalupo, M. B., & Smith, C. A. (2016). Opinion backlash and public attitudes: Are political advances in gay rights counterproductive?. *American Journal of Political Science*, *60*(3), 625–648. https://doi.org/10.1111/ajps.12181

Boeckmann, I., Misra, J., & Budig, M. J. (2014). Cultural and institutional factors shaping mothers' employment and working hours in postindustrial countries. *Social Forces*, *93*(4), 1301–1333. https://doi.org/10.1093/sf/sou119

Burgess, D. J., & Borgida, E. (1999). Who women are, who women should be: Descriptive and prescriptive gender stereotyping in sex discrimination descriptive and prescriptive gender stereotyping. *Psychology, Public Policy, and Law*, *5*(3), 665–692. https://doi.org/10.1037/1076-8971.5.3.665.

Carlson, D. L., Hanson, S., & Fitzroy, A. (2016). The division of child care, sexual intimacy, and relationship quality in couples. *Gender & Society*, *30*(3), 442-466. https://doi.org/10.1177/0891243215626709

Chung, A., & Rimal, R. N. (2016). Social norms: A review. *Review of Communication Research*, *4*, 1–28. https://doi.org/10.12840/issn.2255-4165.2016.04.01.008

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 24, pp. 201–

234). Academic Press. https://doi.org/10.1016/S0065-2601(08)60330-5

Cialdini, R. B. & Trost, M. R. (1998). Social influence: social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (p. 151–192). McGraw-Hill.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.

Croft, A., Schmader, T., & Block, K. (2015). An underexamined inequality: Cultural and psychological barriers to men's engagement with communal roles. *Personality and Social Psychology Review*, *19*(4), 343–370. https://doi.org/10.1177/1088868314564789.

Croft, A., Schmader, T., & Block, K. (2019). Life in the balance: Are women's possible selves constrained by men's domestic involvement? *Personality and Social Psychology Bulletin*, *45*(5), 808–823. https://doi.org/10.1177/0146167218797294

Dennis, S. A., Goodson B. M., & Pearson C. A. (2020). Online worker fraud and evolving threats to the integrity of MTurk data: A discussion of virtual private servers and the limitations of IP-based screening procedures. *Behavioral Research in Accounting*, *32*(1), 119–134. https://doi.org/10.2308/bria-18-044

Dotti Sani, G. M. (2020). Is it "good" to have a stay-at-home mom? Parental childcare time and work–family arrangements in Italy, 1988–2014. *Social Politics: International Studies in Gender, State & Society*, *28*(4), 896–920.

Dotti Sani, G. M., & Treas, J. (2016). Educational gradients in parents' child-care time across countries, 1965–2012. *Journal of Marriage and Family*, *78*(4), 1083–1096.

Eagly, A. H., & Wood, W. (2012). Social role theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 458–476). Sage. https://doi.org/10.4135/9781446249222.n49.

Eisner, L., Turner-Zwinkels, F., & Spini, D. (2021). The impact of laws on norms perceptions. *Personality and Social Psychology Bulletin, 47*(7), 1071–1083.

https://doi.org/10.1177/0146167220959176

Enders, C. K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: A new look at an old issue. *Psychological Methods*, *12*(2), 121–138. https://doi.org/10.1037/1082-989X.12.2.121

Eriksson, K., Strimling, P., & Coultas, J. C. (2015). Bidirectional associations between descriptive and injunctive norms. *Organizational Behavior and Human Decision Processes*, *129*, 59–69. https://doi.org/10.1016/j.obhdp.2014.09.011

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Addison-Wesley.

Flores, A. R., & Barclay, S. (2016). Backlash, consensus, legitimacy, or polarization: The effect of same-sex marriage policy on mass attitudes. *Political Research Quarterly*, *69*(1), 43–56.https://doi.org/10.1177/1065912915621175

Goldstein, N. J., & Cialdini, R. B. (2007). The spyglass self: A model of vicarious self-perception. *Journal of Personality and Social Psychology*, *92*, 402–417. https://doi.org/10.1037/0022-3514.92.3.402

Haas, L., & Hwang, C. P. (2019). Workplace support and European fathers' use of state policies promoting shared childcare. *Community, Work & Family*, *22*(1), 1–22. https://doi.org/10.1080/13668803.2018.1556204

Hamilton, W. L., Biener, L., & Brennan, R. T. (2008). Do local tobacco regulations influence perceived smoking norms? Evidence from adult and youth surveys in Massachusetts. *Health Education Research*, *23*, 709–722. http://dx.doi.org/10.1093/her/cym054

Hogg, M. A. (2010). Influence and leadership. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *The handbook of social psychology* (5th ed., Vol. 2, pp. 1166-1206). Wiley.

Hogg, M. A., & Reid, S. A. (2006). Social identity, self-categorization, and the communication of group norms. *Communication Theory*, *16*(1), 7–30. https://doi.org/10.1111/j.1468-2885.2006.00003.x

Horne, C., & Mollborn, S. (2020). Norms: An integrated framework. *Annual Review of Sociology*, *46*, 467–487. https://doi.org/10.1146/annurev-soc-121919-054658

Galbiati, R., Henry, E., Jacquemet, N., & Lobeck, M. (2021). How laws affect the perception of norms: Empirical evidence from the lockdown. *PloS One*, *16*(9), e0256624. https://doi.org/10.1371/journal.pone.0256624

Jurado-Guerrero, T., & Muñoz-Comet, J. (2021). Design matters most: Changing social gaps in the use of fathers' leave in Spain. *Population Research and Policy Review, 40,* 589–615. https://doi.org/10.1007/s11113-020-09592-w

Korotayev, A., Bilyuga, S., & Shishkina, A. (2018). GDP per capita and protest activity: a quantitative reanalysis. *Cross-Cultural Research*, *52*(4), 406–440. https://doi.org/10.1177/1069397117732328

Kinzig, A. P., Ehrlich, P. R., Alston, L. J., Arrow, K., Barrett, S., Buchman, T. G., ... & Saari, D. (2013). Social norms and global environmental challenges: The complex interaction of behaviors, values, and policy. *BioScience*, *63*(3), 164–175.

Laurin, K. (2018). Inaugurating rationalization: Three field studies find increased rationalization when anticipated realities become current. *Psychological Science*, *29*(4), 483–495. https://doi. org/10.1177/0956797617738814

Legros, S., & Cislaghi, B. (2020). Mapping the social-norms literature: An overview of reviews. *Perspectives on Psychological Science*, *15*(1), 62–80. https://doi.org/10.1177/1745691619866455

Luís, S., & Palma-Oliveira, J. (2016). Public policy and social norms: The case of a nationwide smoking ban among college students. *Psychology, Public Policy, and Law*, *22*(1), 22–30. http://dx.doi.org/10.1037/law0000064

Mahmoud, M. A., Ahmad, M. S., Yusoff, M. Z. M., & Mustapha, A. (2014). A review of norms and normative multiagent systems. *The Scientific World Journal*, *2014*, Article 684587. https://doi.org/10.1155/2014/684587

McAdams, R. H. (2000). An attitudinal theory of expressive law. *Oregon Law Review, 79*, 339–390.

Meeussen, L., Van Laar, C., & Van Grootel, S. (2020). How to foster male engagement in traditionally female communal roles and occupations: Insights from research on gender norms and precarious manhood. *Social Issues and Policy Review*, *14*(1), 297–328. https://doi.org/10.1111/sipr.12060

Morris, M. W., Hong, Y.-y., Chiu, C.-y., & Liu, Z. (2015). Normology: Integrating insights about social norms to understand cultural dynamics. *Organizational Behavior and Human Decision Processes*, *129*, 1–13. https://doi.org/10.1016/j.obhdp.2015.03.001

Nyborg, K. (2003). The impact of public policy on social and moral norms: Some examples. *Journal of Consumer Policy*, *26*(3), 259–277. https://doi.org/10.1023/A:1025622223207

Olsson, M., van Grootel, S., Block, K., Schuster, C., Meussen, L., Schmader, T., … Martiny, S. E. (2023). Gender gap in parental leave intentions: Evidence from 37 countries. *Political Psychology*. https://doi.org/10.1111/pops.12880

Orbell, S., Lidierth, P., Henderson, C. J., Geeraert, N., Uller, C., Uskul, A. K., & Kyriakaki, M. (2009). Social–cognitive beliefs, alcohol, and tobacco use: A prospective community study of change following a ban on smoking in public places. *Health Psychology, 28*(6), 753–761. https://doi.org/10.1037/a0016943

Pailhé, A., Solaz, A., & Stanfors, M. (2021). The great convergence: Gender and unpaid work in Europe and the United States. *Population and Development Review*, *47*(1), 181–217.

Omidakhsh, N., Sprague, A., & Heymann, J. (2020). Dismantling restrictive gender norms: Can better designed paternal leave policies help? *Analyses of Social Issues and Public Policy*, *20*(1), 382–396.

Posner, E. (2000). *Law and social norms.* Harvard University Press.

Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: The contents of prescriptive gender stereotypes. *Psychology of Women Quarterly*, *26*(4), 269–281. https://doi.org/10.1111/1471-6402.t01-1-00066

Rivis, A., & Sheeran, P. (2003). Descriptive norms as an additional predictor in the Theory of Planned Behaviour: A meta-analysis. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues, 22*(3), 218–233. https://doi.org/10.1007/s12144-003-1018-2

Rudman, L. A., & Fairchild, K. (2004). Reactions to counterstereotypic behavior: The role of backlash in cultural stereotype maintenance. *Journal of Personality and Social Psychology*, *87*, 157–176. https://doi.org/10.1037/0022-3514.87.2.157

Schwartz, S. H. (2008). The 7 Schwartz cultural value orientation scores for 80 countries. https://doi.org/ 10.13140/RG.2.1.3313.3040

Schwartz, S. H. (2014). Rethinking the concept and measurement of societal culture in light of empirical findings. *Journal of Cross-Cultural Psychology*, *45*(1), 5–13. https://doi.org/10.1177/0022022113490830

Steinbach, A., & Schulz, F. (2022). Stability and change in German parents' childcare patterns across two decades. *Social Politics: International Studies in Gender, State & Society*, *29*(2), 428–445.

Sunstein, C. R. (1996). On the expressive function of law. *University of Pennsylvania Law Review*, *144*(5), 2021–2053.

Syropoulos, S., Sparkman, G., & Constantino, S. M. (2024) The expressive function of public policy: Renewable energy mandates signal social norms. *Philosophical Transactions of the Royal Society B*, *379*, 20230038. https://doi.org/10.1098/rstb.2023.0038

Tankard, M. E., & Paluck, E. L. (2016). Norm perception as a vehicle for social change. *Social Issues and Policy Review*, *10*(1), 181–211. https://doi.org/10.1111/sipr.12022

Tankard, M. E., & Paluck, E. L. (2017). The effect of a Supreme Court decision regarding gay marriage on social norms and personal attitudes. *Psychological Science*, *28*(9), 1334–1344. https://doi.org/10.1177/0956797617709594

Tharp, D. T., & Parks-Stamm, E. J. (2021). Gender differences in the intended use of parental leave: Implications for human capital development. *Journal of Family and Economic Issues*, *42*, 47–60. https://doi.org/10.1007/s10834-020-09722-8

Unterhofer, U., & Wrohlich, K. (2017). Fathers, parental leave and gender norms (IZA Discussion Papers). Retrieved from https://papers.ssrn.com/Sol3/papers.cfm?abstract_id=2952289

Van Kleef, G. A., Gelfand, M. J., & Jetten, J. (2019). The dynamic nature of social norms: New perspectives on norm development, impact, violation, and enforcement. *Journal of Experimental Social Psychology*, *84*, 103814. https://doi.org/10.1016/j.jesp.2019.05.002

Wei, L. (2020). Trends in parental time allocated to child care: Evidence from Canada, 1986–2010. *Canadian Public Policy*, *46*(2), 236–52.

Tables

Table 1

Sample Size by Country and Information About Whether Parental Leave is Available

Country	*n*	Parental leave	Country	*n*	Parental leave
Albania	154	yes	Lithuania	194	yes
Australia	450	yes	Macedonia	159	yes
Belgium	385	yes	Malaysia	342	no
Bolivia	339	no	Mexico	199	no
Canada	1,333	yes	Netherlands	554	yes
Chile	447	yes	New Zealand	242	yes
China	169	no	Norway	305	yes
Colombia	411	no	Pakistan	215	no
Costa Rica	219	no	Palestine	121	no
Croatia	424	yes	Poland	515	yes
Czech Republic	217	yes	Romania	237	yes
Denmark	157	yes	Russia	187	yes
Ecuador	185	no	Serbia	778	no
Estonia	213	yes	Singapore	210	no
Ethiopia	203	no	Slovakia	277	yes
France	429	yes	South Korea	157	yes
Germany	681	yes	Spain	381	yes
India	152	no	Sweden	198	yes
Indonesia	251	no	Switzerland	1,092	no
Ireland	304	yes	Tanzania	120	no
Italy	300	yes	Turkey	580	no
Japan	512	yes	Ukraine	315	yes
Kazakhstan	156	yes	U.K.	285	yes
Lebanon	190	no	U.S.A.	3,315	yes

Table 2

Means, Standard Deviations, and Intercorrelations (Spearman's ρ) of Study Variables (N = 48 Countries)

	Mean	*SD*	(1)	(2)	(3)	(4)	(5)
(1) Prescriptive norm	67.42	5.48	–				
(2) Descriptive norm	68.25	4.82	**.60**	–			
(3) Leave availability	–	–	**–.53**	**–.32**	–		
(4) Financial generosity of leave	9.90	17.42	**–.34**	–.11	**.60**	–	
(5) Gender imbalance in exclusive leave	94.13	68.03	.09	.10	.36	.07	–
(6) Available leave length	51.48	62.88	**–.40**	–.13	**.87**	**.59**	**.33**

Note. Bold marked correlations are significant at $p < .05$. Individual scores of prescriptive and descriptive norms were averaged for each country. Means and standard deviations refer to the country level. The scales of the norm variables range from 0 (men should do / do all the childcare) to 100 (women should do / do all the childcare); a value of 50 means equal childcare division. Leave availability was coded with 'yes' as 1 and 'no' as 0. The scale of financial generosity indicates the number of weeks of 100 percent income. The scale of gender imbalance in exclusive leave indicates the ratio of how much of the parental leave is exclusive to mothers relative to fathers in each country. Positive scores indicate more unequal leave policies in favor of the mother. Available leave length represents the total amount of leave in weeks that is available to either parent.

Table 3

Fixed Effects and Random Effects in the LMM 1 for Prescriptive and Descriptive Norm

LMM 1 for prescriptive norm (*n*=19,230; 48 countries)	*b*	*SE b*	95% CI LL	95% CI UL	*p*
Fixed Effects					
Intercept	**71.14**	1.07	69.02	73.28	< .001
Parental leave availability	**–5.98**	1.34	–8.68	–3.31	< .001
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	2.67	1.64			
Intercept variance (country-level)	27.42	4.17			
LMM 1 for descriptive norm (*n*=19,229; 48 countries)					
Fixed Effects					
Intercept	**70.54**	1.03	68.49	72.60	< .001
Parental leave availability	**–3.72**	1.30	–6.32	–1.13	.006
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	1.87	1.37			
Intercept variance (country-level)	16.62	4.08			

Note. Bold marked correlations are significant at $p < .05$. Parental leave availability was coded with ‘yes’ as 1 and ‘no’ as 0.

Table 4

Robustness Analyses for the Fixed Effects and Random Effects in the LMM1_r for Prescriptive and Descriptive Norm

			95% CI		
LMM 1_r for prescriptive norm (*n*=18,722, 47 countries)	*b*	*SE b*	LL	UL	*p*
Fixed Effects					
Intercept	**69.09**	0.94	67.19	70.98	< .001
Parental leave availability	**–2.88**	1.09	–5.07	–0.69	.012
Gender	**–3.40**	0.25	–3.88	–2.92	< .001
Having children	2.12	1.11	–0.06	4.29	.056
Gender essentialism	**0.24**	0.08	0.07	0.40	.004
GDP per capita	**–0.13**	0.02	–0.17	–0.08	< .001
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	2.30	1.52			
Intercept variance (country-level)	8.46	2.91			
LMM 1_r for descriptive norm (*n*=18,720; 47 countries)					
Fixed Effects					
Intercept	**69.00**	0.95	67.11	70.90	< .001
Parental leave availability	–1.08	1.10	–3.27	1.11	.330
Gender	**–3.21**	0.24	–3.68	–2.73	< .001
Having children	**3.55**	1.10	1.40	5.70	.001
Gender essentialism	**1.16**	0.08	1.00	1.33	< .001
GDP per capita	**–0.06**	0.02	–0.11	–0.01	.017
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	1.89	1.37			
Intercept variance (country-level)	8.80	15.53			

Note. Bold marked correlations are significant at $p < .05$. Parental leave availability was coded with ‘yes’ as 1 and ‘no’ as 0. Gender was coded with ‘male’ as 1 and ‘female’ as 0. Having children was coded with ‘yes’ as 1 and all other options as 0. Higher scores in gender essentialism indicate a stronger gender essentialist attitude. Original values for GDP per capita (in $US) were divided by 1.000 to increase readability of the corresponding coefficient estimates. Ethiopia was excluded as a country due to low reliability in gender essentialism (Cronbach’s alpha < .55).

Table 5

Fixed Effects and Random Effects in the LMM 2 for Prescriptive and Descriptive Norm

			95% CI		
LMM 2 for prescriptive norm (*n*=19,230, 48 countries)	*b*	*SE b*	LL	UL	*p*
Fixed Effects					
Intercept	**67.38**	0.72	65.94	68.83	< .001
Financial generosity	–0.06	0.05	–0.16	0.04	.228
Gender imbalance in exclusive leave	0.02	0.01	–0.01	0.04	.195
Available leave length	–0.01	0.01	–0.04	0.02	.409
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	2.70	1.64			
Intercept variance (country-level)	22.31	4.72			
LMM 2 for descriptive norm (*n*=19,229, 48 countries)					
Fixed Effects					
Intercept	**68.20**	0.67			< .001
Financial generosity	–0.03	0.05			.584
Gender imbalance in exclusive leave	0.00	0.01			.787
Available leave length	–0.00	0.01			.720
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	1.86	1.37			
Intercept variance (country-level)	19.42	4.41			

Note. Bold marked correlations are significant at $p < .05$. Financial generosity and available time of leave were assessed in weeks. Gender imbalance in exclusive leave was assessed in days. All predictors were grand mean centered.

Table 6

Fixed Effects and Random Effects in the LMM for Prescriptive and Descriptive Norm with Introduction of Parental Leave (Dummy Coded) as Predictor

			95% CI		
LMM for prescriptive norm (*n*=19,230; 48 countries)	*b*	*SE b*	LL	UL	*p*
Fixed Effects					
Intercept	**71.13**	1.02	69.1	73.18	< .001
Available since 2013 (dummy 1)	**–4.52**	1.46	–7.44	–1.62	.003
Available since 1994 (dummy 2)	**–7.83**	1.56	–10.97	–4.73	< .001
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	2.66	1.63			
Intercept variance (country-level)	15.68	15.86			
LMM for descriptive norm (*n*=19,229; 48 countries)					
Fixed Effects					
Intercept	**70.54**	1.00	68.53	72.55	< .001
Available since 2013 (dummy 1)	–2.67	1.43	–5.54	0.20	.070
Available since 1994 (dummy 2)	**–5.06**	1.54	–8.14	–1.99	.002
Random Effects	*b*	*SD b*			
Intercept variance (site-level)	1.84	1.36			
Intercept variance (country-level)	15.7	3.96			