

KU LEUVEN

FACULTY OF PSYCHOLOGY AND  
EDUCATIONAL SCIENCES

**FEAR OF BACKLASH AS A BARRIER TO MEN'S  
INVOLVEMENT IN CHILDCARE**

Predicting Fear of Backlash in Men for Childcare across the  
World using Country-Level Indicators

Master's thesis submitted for the  
degree of Master of Science in  
Master of Psychology: Theory and  
Research by  
**Eline Camerman**

Supervisor: Colette van Laar  
Co-supervisor: Loes Meeussen

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## Summary

Despite advances towards gender equality over the years, little increase has been observed in men's representation in parental childcare, with women still doing the bulk of childcare duties. Even though there are clear benefits associated with men's involvement in childcare, research suggests that fear of backlash for gender-incongruity in men may serve as an important sociocultural barrier to men's childcare engagement. Backlash in this context is referred to as the negative evaluation or treatment of individuals that show gender-incongruent behavior, traits or interests. The threat of future backlash for violating gender norms by being largely involved in childcare may in turn evoke fear, which limits men's childcare engagement as it has shown to result in increased gender role conformity. Moreover, since backlash is strongly related to gender norms within society and as these norms are shaped by a country's social structures, the extent to which men fear this backlash is likely to differ across countries and to be predicted by country-level indicators. Yet, to our knowledge, this has never been examined.

To address this gap, the purpose of this thesis was to (a) examine whether there exist cross-country differences in the extent to which men fear backlash for putting their careers on hold to care for their children, and (b) explain cross-country variation in men's fear of backlash by different country-level indicators. Specifically, we hypothesized that men would fear backlash more in countries with a smaller female employment rate, a larger gender wage gap, less generous exclusive paternal leave, a larger power distance, a smaller female full-time employment rate, and finally, a shorter duration of exclusive paternal leave. To achieve our research objectives, we had young, highly educated men ( $N = 6274$ ) across 49 countries anticipate on their life as working men and fathers and indicate to what extent they would fear backlash if they would put their careers on hold to care for their children. Additionally, country-level indicators were retrieved from publicly available online databases. To examine cross-country variation in fear of backlash across the world, the intraclass correlation coefficient (ICC) was extracted. Subsequently, multilevel regression analysis was used to investigate whether men's fear of backlash could be explained by the country-level indicators.

First, the results indicated significant country-level variation in the extent to which men fear backlash for putting their careers on hold to care for their children. Second, concerning the country-level predictors, the gender wage gap was found to significantly predict men's fear of backlash, with men having higher fear of backlash in countries in which the gender wage gap is larger. Furthermore, mixed evidence was found for the female employment rate, as its significance depended on what was being controlled for. The other country-level indicators did not predict men's fear of backlash. Although we have no clear information on the causality or the direction of the effect, this examination gives us some indications that addressing the gender wage gap can be a potential way in which the barrier of fear of backlash to men's childcare engagement can be tackled, and the pursuit of gender equality further promoted.

## Acknowledgements

This thesis is submitted for the degree of Master of Psychology: Theory and Research. Working on this thesis allowed me to gain a lot of experience in writing a scientific paper, writing a pre-registration, collaborating with a cross-cultural research team, and conducting and programming multilevel analyses on a large cross-national dataset. These skills will benefit me in my future career. Moreover, this thesis allowed me to gain more insights into my personal research interests and to grow as a person. Importantly, all of this would not have been possible without the help and support of a number of individuals.

First, I would like to thank my supervisor Colette van Laar and my co-supervisor Loes Meeussen for giving me the opportunity to work on this interesting and socially relevant topic, for organizing very useful collective master's thesis sessions, and for the valuable guidance and feedback I received through the several stages in the completion of this thesis. In addition, I would like to thank the whole UCOM team for their feedback on my pre-registration, for being open to my questions, and for providing sample R codes and papers. Furthermore, I would like to thank my partner student Sha Li for providing feedback on multiple sections of my thesis.

Lastly, I also want to express my gratitude to the people close to me who supported me through this process. A special thanks goes out to my parents for the unconditional emotional and practical support, and to my partner Lise Vanderborght who continuously encouraged me, believed in me, showed patience during my long working hours, and proofread this thesis.

### **Contribution and Approach**

This thesis is part of a large scale cross-national project called Understanding Communal Orientation in Men (UCOM; <https://ucom2017.wordpress.com>). At the start of my thesis, the UCOM team had already composed the cross-national survey of interest, and data was already collected and cleaned. My supervisor and co-supervisor provided me with a general research question (i.e., “to what extent can men’s fear of backlash be predicted by country-level indicators”) and a few papers to start from. With this as a starting point, I first read into the literature on fear of backlash and country-level indicators aimed at formulating specific hypotheses. After selecting relevant country-level predictors and specifying the exact hypotheses in consultation with my supervisor and co-supervisor, I worked on a detailed pre-registration of my thesis for which I received extensive feedback from my supervisor and co-supervisor as well as from the UCOM team. In this pre-registration, I described my hypotheses, data exclusions, control variables, and my data analysis plan. After pre-registering my thesis on OSF, I conducted a literature study, wrote the methods section, and wrote R code to perform my data preparations (e.g., data exclusions, retrieving and cleaning country-level data, combining country-level with individual data, defining outliers, creating my outcome variable and multiple predictor variables from the country-level data, centering variables, performing imputations, etc.) and analyses. Although I had a sample code from the UCOM team, I mainly wrote the R code for my thesis completely by myself (with many, many lines of code). Subsequently, I interpreted the results and wrote out the results and discussion sections of this thesis. My supervisor and co-supervisor provided me with feedback on every written section of this thesis.

In addition to this thesis, I have also contributed to other projects within my research group. More specifically, I have helped recruiting participants for five other projects, and I have participated in two studies myself.

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## Introduction

Whereas the participation of women in traditionally male-dominated, agentic domains (i.e., roles that emphasize agentic qualities such as assertiveness, competence, independence, rationality) steadily increased in the past few decades, the participation of men in female-dominated, communal domains (i.e., roles that emphasize communal qualities such as being caring, sensitive, kind, social) increased only slightly (Bureau of Labor Statistics, 2018a; Bureau of Labor Statistics, 2018b; The World Bank, 2019a). This relatively stable underrepresentation of men in communal domains over time is also seen in parental childcare. For instance, recent U.S. data seems to indicate that for the last two decades very limited increase has been observed in men's contribution to parental childcare, even though the number of employed women has steadily increased (Bureau of Labor Statistics, 2018b; The World Bank, 2019a). Moreover, in Europe and in the United States, on average, mothers still spend twice as much time on childcare each day compared to fathers (Bureau of Labor Statistics, 2018b; Eurofound, 2017).

A potentially important sociocultural barrier to men's childcare engagement is the fear of backlash for gender-incongruency (Rudman & Fairchild, 2004). Backlash in this context is referred to as sanctions given to individuals that show gender-incongruent behavior, traits or interests (i.e., men being communal or women being agentic; Rudman & Fairchild, 2004). Fearing backlash for violating gender norms can be a barrier to men's contribution to childcare because it results in strategies to avoid backlash, including gender role conformity (Rudman & Fairchild, 2004). Since backlash is strongly related to gender norms within society and as these norms are shaped by a country's social structures, the extent to which men fear this backlash is likely to differ across countries and to be predicted by country-level indicators (Croft et al., 2015; Eagly, 1987; Yu et al., 2017). Yet, fear of backlash for gender-incongruency has mainly been studied in Western countries, and to our knowledge, no studies investigated how it varies across the world and how country-level indicators relate to the fear of backlash men experience. To address these gaps, in this thesis we conduct what we believe to be the first cross-country investigation of men's fear of backlash for gender-incongruency as a barrier to their childcare engagement, and the first examination of its country-level predictors.

In what follows, we discuss the (inter)personal and sociocultural advantages related to men's involvement in childcare, indicate fear of backlash as a sociocultural barrier to men's childcare involvement, and introduce the female employment rate, the gender wage gap, the generosity of exclusive paternal leave, the power distance, the female full-time employment

rate, and finally, the duration of exclusive paternal leave as possible predictors of men's fear of backlash.

### **The Importance of Men's Childcare Involvement**

Whereas the abovementioned statistics highlight an asymmetrical change in gender roles, increasing men's involvement in childcare is important for two main reasons. First, men's involvement in childcare is related to many personal and interpersonal advantages, and second, it may be the key to achieve full gender equality.

#### ***(Inter)Personal Advantages***

Research has found that men can enjoy personal and interpersonal benefits when caring for their own children. Studies indicate for instance that men's involvement is associated with greater well-being, and better quality of the parent-child and marital relationship (Le & Impett, 2015; Schindler, 2010). Furthermore, children themselves benefit as well from their father's involvement as it is related to better mental health, better social development, and lower behavioral problems (Marsiglio et al., 2000; Opondo et al., 2016; Roeters & van Houdt, 2019). These findings indicate that men with low parental involvement are disadvantaged by missing out on the many benefits related to childcare.

#### ***Achieving Full Gender Equality***

A second main advantage of increasing men's engagement in childcare is that it could be an important way to achieve full gender equality in society. This contribution to achieving full gender equality happens partially through tackling traditional gender norms.

**Gender Equality by Tackling Gender Norms.** Individuals guide and evaluate their behavior to correspond with gender norms even when others are not present, resulting in behaviors, characteristics and interests that are consistent with these norms (Bussey & Bandura, 1992; Witt & Wood, 2010). Gender norms describe how people are (i.e., descriptive norms), prescribe how people should be (i.e., prescriptive norms) and how people should not be (i.e., proscriptive norms) in their society based on their biological or perceived sex (Burgess & Borgida, 1999; Diekman & Goodfriend, 2006; Moss-Racusin et al., 2010; Prentice & Carranza, 2002). For instance, traditionally, gender norms prescribe men to be work-oriented and agentic, and proscribe men to be weak (e.g., Burgess & Borgida, 1999; Moss-Racusin et al., 2010; Wood & Eagly, 2012).

According to social role theory (Eagly, 1987), gender norms and stereotypes originate in part from historical divisions of roles by sex that were based on biological differences between men and women (e.g., women dominated infant caregiving because they give birth, men did physical work because they have higher average strength). Social role theory then

proposes that these different roles assigned to men and women are interpreted as reflecting their characteristics, interests and abilities, which consequently reinforces gender norms and stereotypes (Eagly et al., 2000). Thus, according to social role theory, because men have been overrepresented in agentic roles over time, men are stereotyped as agentic (Eagly, 1987; Eagly & Steffen, 1984). This also implies that, according to social role theory, gender norms and stereotypes change when the roles occupied by men and women change, which occurs only when changing social structures in a society – such as economy, law or religion – encourage the adoption of non-traditional gender roles (Croft et al., 2015; Eagly, 1987; Meeussen et al., 2020). As a consequence, if more men move into communal roles and increase their childcare engagement, gender norms for men should also become less rigid and traditional. As individuals guide their behavior to correspond to these norms, the reduced rigidity or traditionality of these norms may consequently reduce gender inequality in multiple domains such as the labor market or childcare.

**Gender Equality by Tackling the Child Penalty.** In addition to tackling traditional gender norms, an increased involvement of men in childcare can help to achieve gender equality through other mechanisms as well. For example, evidence suggests that most of the remaining gender inequality in salary and the labor market comes from an unequal share of childcare duties, the so-called “child penalty” (Kleven et al., 2019). If men would increase their contribution to childcare, this could lead to a more equal distribution of childcare on the one hand, but on the other hand gives women the chance to invest more of their time in the pursuit of career goals (Croft et al., 2015; Meeussen et al., 2020). Moreover, women will be less inclined to choose occupations that favor family amenities which are mostly traditionally feminine and tend to offer lower wage rates (Kleven et al., 2019). In this way, increasing paternal involvement in childcare might be the key to achieve both domestic and workplace gender equality.

### **The Barrier of Fear of Backlash**

It may seem contradictory that despite the importance and advantages related to men’s childcare engagement the inequality in the division of childcare duties is so persistent. However, research has shown that sociocultural factors play an important role in the conservation of men’s lower contribution to parental childcare (Wood & Eagly, 2012). An important sociocultural barrier to men’s childcare engagement is the fear of backlash for gender-incongruity (Rudman & Fairchild, 2004). The consequence of gender norms being prescriptive and proscriptive is that gender norms, just like other social norms, are socially reinforced. That is, conforming to gender norms is socially rewarded, whereas deviations are

socially sanctioned (also referred to as “backlash”; Brown & Diekmann, 2010; Prentice & Carranza, 2002; Rudman & Fairchild, 2004; Wood & Eagly, 2012). Backlash often manifests as a negative evaluation or treatment of gender-incongruent individuals, such as name calling, job discrimination and being judged less likeable (e.g., Moss-Racusin et al., 2010; Sullivan et al., 2018). As a consequence, men who violate gender stereotypes or norms by engaging in childcare are likely to experience backlash.

Research has shown that backlash negatively impacts one’s sense of belonging and, therefore, one’s self-esteem and well-being (e.g., Egan & Perry, 2001; Rudman & Fairchild, 2004; Toomey et al., 2010). For instance, men who experienced more pressure from others to conform to gender stereotypes (i.e., being agentic) had lower self-esteem (Good & Sanchez, 2010). To reinstate their self-worth, sanctioned individuals engage in recovery strategies such as increased conformity to traditional gender norms and hiding or lying about their gender-incongruent behaviors, characteristics, or interests (Rudman et al., 2012; Rudman & Fairchild, 2004). Therefore, backlash for gender-incongruency is a social mechanism that ensures gender norm adherence through social regulation.

Importantly, besides actually receiving backlash, fearing potential future backlash can already be a barrier to men’s contribution to childcare because it results in strategies to avoid future backlash, including gender role conformity (Rudman et al., 2012; Rudman & Fairchild, 2004). Given that the experiences of sanctions for non-conformity negatively impact one’s self-esteem and well-being, the threat of future backlash may in turn evoke fear (Rudman et al., 2012; Rudman & Fairchild, 2004). Therefore, out of fear, individuals will use the mentioned ‘recovery’ strategies – such as increased gender role conformity – even before receiving any sanctions in order to avoid backlash in the future (Phelan & Rudman, 2010; Rudman et al., 2012; Rudman & Fairchild, 2004). This way, through fear of backlash for gender-incongruency, gender norms influence a wide range of behaviors, aspirations and choices such as the roles people are represented in (Rudman & Fairchild, 2004; Witt & Wood, 2010). In doing so, gender norms and stereotypes of a society are confirmed and preserved, rather than challenged (Phelan & Rudman, 2010; Rudman & Fairchild, 2004). Hence, fear of backlash for gender-incongruency partially explains how gender norms and stereotypes bring about the underrepresentation of men in parental childcare.

In evidence of fear of backlash being a barrier to men’s childcare engagement, studies have shown that the higher the amount of negative career consequences or the amount of negative judgements that men feared to receive from coworkers, the less likely they were to take parental leave and the shorter taken leave was (Haas et al., 2002; Stertz et al., 2020).

Moreover, this fear is not unjustified given that men who take longer parental leave are perceived as less committed to work and receive fewer recommendations for rewards (Allen & Russell, 1999). These findings indicate that taking parental leave to care for one's children is considered gender-incongruent for men, and because of fear of negative judgements or a negative impact on their career, men conform to gender norms prescribing them to be agentic and not weak by limiting their childcare involvement.

### **Fear of Backlash across Countries**

Despite the importance of fear of backlash as a barrier to men's childcare engagement, this phenomenon has mainly been studied in Western countries and we know of no studies investigating the prevalence and variation of fear of backlash for gender-incongruency across the world. Yet, differences across countries in the level of fear of backlash could be expected given that backlash is strongly related to gender norms, and the content and rigidity of gender norms differ across countries (e.g., Mueller & Conway Dato-on, 2013; Williams & Best, 1990; Yu et al., 2017). This variation is potentially due to different social structures and gender roles occupied by inhabitants of that country (as stated by social role theory; Eagly 1987). The presence of different gender norms across countries implies that what is seen and experienced as gender-incongruent also differs across countries, and therefore – although to our knowledge never investigated – the amount of backlash that is received or can be expected for gender-incongruency is likely to differ as well. These different expectations or experiences of backlash across countries are likely to result in varying levels of fear of backlash.

Suggestive evidence confirms the potential association between differences in gender norms and the level of fear of backlash. Namely, Van Grootel et al. (2018) found that men who were experimentally presented with norms that indicated that both agentic and communal traits are important for men and that these traits are compatible with each other had lower intentions to hide their future childcare engagement compared to when no norms were manipulated (and thus the actual more traditional gender role norms could be assumed to be active). These differences in hiding behavior suggest the presence of varying levels of fear of backlash when engaging in childcare in function of differences in gender norms. An investigation of fear of backlash across countries is thus important given that it informs us about the prevalence of fear of backlash for gender-incongruency across the world, together with potential meaningful differences between countries, hereby extending previous research that mainly focused on Western countries.

Additionally, given the expected relationship between fear of backlash for gender-

incongruency on the one hand, and gender norms and gender roles in a country on the other hand, we suggest that country-level indicators should at least partially explain men's fear of backlash. Namely, gender norms and roles are reflected in and shaped by a country's social structures (Croft et al., 2015; Eagly, 1987; Meeussen et al., 2020). However, to our knowledge, no studies investigated whether country-level indicators can predict the fear of backlash men experience. This examination is nevertheless important as studies suggest that individual-level factors are insufficient to achieve full gender equality without tackling country-level barriers (Fuwa, 2004; Geist, 2005; Haas et al., 2002; Hook, 2006). Findings from such examinations can give insight into the country-level indicators that contribute to, maintain or overcome fear of backlash as a barrier to men's involvement in childcare. Therefore, this examination provides us with potential insights as to which and how social structures could be changed to reduce the barrier of fear of backlash, and thus to further promote gender equality. Notably, the aim should not be to push men into communal roles, but to remove any barrier solely based on their gender that restricts men in their options and opportunities to pursue their personal communal and/or agentic aspirations.

### **The Current Study**

To address the abovementioned gaps, as part of a larger project called Understanding Communal Orientation in Men (UCOM), we conduct in this thesis what we believe to be the first investigation of cross-country differences in fear of backlash that young men ( $N = 6274$ ) across 49 countries experience for putting their careers on hold to care for their children, and the first investigation of whether fear of backlash can be explained by country-level indicators. We chose to focus on the fear of backlash specifically for putting their careers on hold to care for their children because time spent at work and time spent on childcare are strongly intertwined. Namely, investing more time in a career limits men's time available for childcare (Bünning, 2020; Norman et al., 2014). Moreover, being the family's main provider and pursuing financial success are important parts of men's gender norm prescriptions and of what defines masculinity (Eagly & Wood, 1999; Meeussen et al., 2020; Vandello et al., 2008). For instance, research indicates that men who wanted to put their careers on hold to care for their children by asking for family leave received backlash mainly for violating agentic gender norm prescriptions related to their career (Rudman & Mescher, 2013). This indicates the importance of prescriptions related to men's career in determining their fear of backlash when men would engage in childcare. Therefore, examining men's fear of backlash when putting their careers on hold to care for their children may more accurately capture the limits that fear of backlash sets on men's childcare involvement.

To examine our research questions, we had young, highly educated men across all countries anticipate on their life as working men and fathers and indicate whether they would fear backlash if they would put their careers on hold to care for their children. We chose to focus on young adulthood (18–30 years old; Rindfuss, 1991) because it is considered to be a crucial time of identity exploration and consolidation of belief systems, including beliefs about gender (Arnett, 2000; Lobel et al., 2004). Moreover, young adults are about to make important decisions concerning their career and family. As these decisions are yet to be determined, young adulthood may be an important developmental stage for inducing a change in gender norms. Additionally, highly educated young adults are the leaders and policy makers of the future, and therefore, they are a relevant group for examining fear of backlash levels. To minimize potential researcher degrees of freedom, we pre-registered<sup>1</sup> our hypotheses, study design and analysis plan at the Open Science Framework (OSF) on <https://osf.io/yeu79>.

### **Country-Level Indicators**

Below, we introduce the country-level female employment rate, gender wage gap, generosity of exclusive paternal leave and power distance which we examine as key predictors of fear of backlash. Additionally, the country-level female full-time employment rate and the duration of exclusive paternal leave are introduced as possible secondary predictors – tested in two secondary models.

### ***Key Predictors***

**Female Employment Rate.** We hypothesize men to experience less fear of backlash in countries with a higher percentage of employed females. There are some indications that the female employment rate of a country may play a role in the level of fear of backlash men experience for putting their careers on hold to care for their children. Many studies namely indicate that a higher percentage of employed women in a country is associated with a higher involvement of men in domestic work (Barnett & Baruch, 1987; Deutsch et al., 1993; Hook, 2006; Jacobs & Kelley, 2006). This is also suggested by a longitudinal study of Norman et al. (2014), who found that women’s employment hours had a longitudinal influence on men’s involvement in childcare, and this influence was even stronger than men’s own employment hours. Men’s higher representation in childcare in countries in which female employment is higher could lead to a change in gender norms towards communion for men. Indeed, findings of Seguino (2007) suggest that women’s higher labor participation in a country promotes less

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<sup>1</sup> Three alterations from the original pre-registration were made before testing any hypothesis and these were also pre-registered at OSF on <https://osf.io/7p9bn>

traditional gender norms and stereotypes. The formation or presence of less traditional gender norms for men in countries with higher female employment likely results in men experiencing less fear of backlash, as caring for children is subsequently less gender-incongruent for men.

Additionally, in countries in which female employment is higher, women will have less time to invest in childcare and may therefore have higher expectations for men to contribute to childcare to fill in this gap. In line with this, research shows that a higher work orientation in women or the aspiration of women to become a primary breadwinner is related to higher expectations of women for men to contribute to childcare, potentially to allow the pursuit of women's work ambitions and to reduce conflicts between work and family roles (Croft et al., 2020; Meeussen et al., 2019). These expectations also likely reflect the valuation of men contributing to childcare by women, and thus a higher female employment rate is likely related to less fear of backlash in men for engaging in childcare.

However, while the above is our primary hypothesis, we also foresee that some mechanisms may counter the expected relationship reported above. Even when women's labor force participation has increased and women have less time to invest in childcare, they may still be expected to take the lion's share of responsibility for household and childcare (also known as working a "second shift"; Hochschild & Machung, 2012; Kushner et al., 2014). Therefore, women's expectations for men to contribute to childcare and men's actual contribution to childcare may still be low, which could (partly) suppress the association between female employment and men's fear of backlash. In addition, when the proportion of female employment increases, this could lead to more competition in the labor market or a larger focus on work within a country, for both women and men. Consequently, the higher expectations of women for men to contribute to childcare may not outweigh the higher value given to work by society and by men. In line with this, men's likelihood to share domestic work depends on how important paid work is in a specific country (Thébaud, 2010). This higher emphasis on agentic values in a country may then result in no association or even a positive association between female employment and fear of backlash among men.

**Gender Wage Gap.** Not only equality in labor force participation but also equality in earned income may be an important predictor of men's fear of backlash for putting their careers on hold to care for their children. Namely, we hypothesize men to experience more fear of backlash in countries in which the gender wage gap is larger (with men earning more than women). The gender wage gap is the average difference in earned income between employed women and men. When the gender wage gap is larger, there is a higher financial cost associated with fathers taking on paternal roles if they would put their careers on hold for

it. Since pursuing financial success is an important part of men's gender norm prescriptions (Eagly & Wood, 1999; Meeussen et al., 2020), more fear of backlash is expected in countries with a larger gender wage gap. The higher financial cost for fathers to take leave may also lead women to put less pressure on their male partner and have lower expectations for them to contribute to childcare. Instead, couples will be more likely to decide that women take on the role of caretaker as then women generally earn less than men. This is also in line with the relative resource perspective, which conceptualizes the division of household labor as an outcome of negotiation between couples, in which the individual with fewer economic resources has less power or opportunity to negotiate who does domestic work (Brines, 1994). Therefore, when the gender wage gap is larger in favor of men, men will have more power in the negotiation, and childcare duties are more likely to remain a woman's job (Fuwa, 2004; Geist, 2005; Öun, 2013).

In addition, a larger gender wage gap is also an indicator of a lower appreciation of female roles, and thus also indicates a lower status of these roles (see Cohen & Huffman, 2003, for a review). According to the status incongruity hypothesis, individuals who violate stereotypes that justify the gender hierarchy are more at risk for backlash (Moss-Racusin et al., 2010). Therefore, the lower status associated with communal roles in countries with a larger gender wage gap is possibly related to more fear of backlash in men because being largely involved in childcare, and especially at the expense of their career, violates the existing status differences in gender.

**Generosity of Exclusive Paternal Leave.** We also expect that countries' paternal leave policies play a role in men's fear of backlash. We will examine the role of the generosity of exclusive paternal leave, defined as the combination of paternity leave and parental leave that is exclusively available to fathers, and the financial compensation thereof. We hypothesize men to experience less fear of backlash for putting their careers on hold to care for their children in countries in which exclusive paternal leave is more generous (i.e., has a longer duration and/or higher pay). As mentioned, traditional gender norms prescribe men to provide for their family and pursue financial success (Eagly & Wood, 1999; Meeussen et al., 2020). A longer duration and higher pay (i.e., higher generosity) of paternal leave that is exclusively available to fathers in a country weaken these traditional gender norm and signal that men are (also) expected to contribute to childcare (Gornick & Meyers, 2008). Moreover, when paternal leave is paid or the pay is higher, the financial costs for men of contributing to childcare will be lower. Therefore, it may be more normative for fathers to take up communal family roles when paternal leave is more generous, and thus we expect more generous

paternal leave to be related to less fear of backlash. Furthermore, research has shown that more fathers will take paternal leave when it is more generous (Fleischmann & Sieverding, 2015; Seward et al., 2002), and that fathers who take leave are more involved in childcare, even beyond the period of leave (Tamm, 2019). These fathers can subsequently serve as role models and, as proposed by social role theory (Eagly, 1987), tackle traditional gender norms as men are more represented in childcare.

**Power Distance.** As a final key country-level indicator, we hypothesize men to experience more fear of backlash in countries in which the cultural power distance is higher. Cultural power distance refers to the extent to which an unequal distribution of power within a country is accepted and expected, also by the less powerful members of that country, which consequently influences hierarchy and dependence relationships (Hofstede, 1980). In countries of higher power distance, power is unequally distributed among individuals, but this hierarchical ordering of society is accepted and expected (Hofstede, 1980). As a result, individuals' actions are perceived as more under the control of powerful others. In contrast, in countries with lower power distance, power is relatively evenly distributed among individuals, and power holders are seen more as equals by the less powerful members of the society (Hofstede, 1980). As a result, in countries with lower power distance, individuals can act more freely in accordance with their personal preferences and are less concerned about complying with opinions of others (Hassan et al., 2016; Tyler et al., 2000). In evidence, studies found that traditional beliefs about gender roles are less pronounced in countries with lower power distance (Best & Williams, 1998; Lee et al., 2020). For these reasons, we expect men to experience less fear of backlash when violating traditional gender norms by contributing to childcare in countries with lower power distance.

### ***Secondary Predictors***

In addition to the key predictors described above, we will also investigate the female full-time employment rate and the duration of exclusive paternal leave as secondary predictors of men's fear of backlash.

**Female Full-Time Employment Rate.** The percentage of employed women, as indicated as a key predictor above, does not take into account the number of hours that women are working. As research indicates, a lot of women work part-time and thus fewer hours than men (Paull, 2008; The World Bank, 2019b), which means that women have more time to invest in childcare compared to full-time workers. To control for these effects, a variable will be created that indicates the percentage of all women that are employed full-time in a country. We hypothesize men to experience less fear of backlash for putting their careers

on hold to care for their children in countries in which a higher percentage of all women is employed full-time.

Higher percentages of women working part-time in a country reflect the norm that women rather than men should care for children. This is also suggested by data from Great Britain showing that among those who had their first child, a substantial decrease in the percentage of women that work full-time is observed, whereas the percentage of full-time employed men remained almost unaffected (Paull, 2008). Therefore, when more women in a country are employed part-time rather than full-time, we expect that the expectations individuals have for men to contribute to childcare are lower, that men will contribute less to childcare, and that gender norms will be more traditional (both as a cause and an effect of higher female part-time employment). In line with this, Hook (2006) found that men were more involved in domestic work in countries in which women worked more hours. It may thus be important to take into account the hours that women are working by examining the relationship between female full-time employment and fear of backlash in men.

**Duration of Exclusive Paternal Leave.** As described, we expect less fear of backlash in countries with more generous exclusive paternal leave. However, to assess the extent to which financial compensation is important to this regard, we will additionally examine how solely the duration of exclusive paternal leave (regardless of financial compensation of this leave) predicts fear of backlash in men. We hypothesize men to experience less fear of backlash in countries in which the duration of exclusive paternal leave is longer. However, we expect the association to be weaker when only including the duration instead of generosity of leave, given that previous findings indicate that the amount of salary coverage is an important predictor for the uptake of paternal leave by fathers, and since financial costs may be the main reason why women take on the role of caretaker (Castro-García & Pazos-Moran, 2016; O'Brien, 2009; Seward et al., 2002).

In sum, in the current thesis we aim to extend previous research by examining whether fear of backlash in men for putting their careers on hold to care for their children differs across countries, and whether fear of backlash can be explained by country-level indicators. This investigation extends previous research that mainly focused on Western countries, and these findings can give insights into the country-level indicators that contribute to, maintain or overcome fear of backlash as a barrier to men's involvement in childcare. We hypothesize that:

H1: There is significant country-level variation in the extent to which men fear backlash for putting their careers on hold to care for their children.

H2: Men experience less fear of backlash in countries in which a higher percentage of women is employed.

H3: Men experience more fear of backlash in countries in which the gender wage gap is larger.

H4: Men experience less fear of backlash in countries with more generous exclusive paternal leave.

H5: Men experience more fear of backlash in countries in which cultural power distance is higher.

H6: Men experience less fear of backlash in countries in which a higher percentage of women is employed full-time.

H7: Men experience less fear of backlash in countries with longer exclusive paternal leave.

### **Methods**

A detailed overview of the general procedure, sample questionnaires, general data preparations, etc., is pre-registered on OSF by the UCOM core team and can be found at <https://osf.io/rv4wf>. We report how we determined our sample size, all data exclusions, all manipulations, and all measures key to this thesis.

### **Procedure**

Data were collected from end 2017 until 2019. The UCOM core team recruited project collaborators from universities in different countries through email invitations within their network, in which people were additionally asked whether they knew other researchers who as well might be interested to participate as a collaborator. Collaborators were instructed to recruit a minimum sample of 80 undergraduate men and 80 undergraduate women from one or more universities in their geographical region. This recruitment took place after obtaining formal ethics clearance from their respective university (if required by the ethics standard in the country). More specifically, collaborators were instructed to either recruit all participants from psychology majors or all participants from HEED (i.e., domains of Health care, Elementary Education and Domestic roles) and STEM (i.e., domains of Science, Technology, Engineering, and Mathematics) majors with at least 30 participants of each gender in both HEED and STEM. In some cases, if our collaborators were unable to meet the sample requirements, they were allowed to sample from a selection of other majors, such as business and sociology. Collaborators were free to choose how they recruited participants. Examples are the usage of university recruitment systems and campus-wide emails. Whether and which rewards were given to participants in exchange for their study participation (e.g., financial

compensation, course credit) was chosen by the collaborators. Collaborators were encouraged to recruit domestic students.

In purpose of the cross-sectional UCOM project, a questionnaire was developed to measure young men's and women's gender role attitudes and perceptions, normative beliefs, and interests in STEM and HEED roles. The original questionnaire was developed in English, and collaborators were asked to translate the survey to the language of instruction at their university, and subsequently have the translation checked by at least one other person proficient in English. Most collaborators opted to collect data online using Qualtrics, but some collaborators used their own survey tool, or paper-and-pencil surveys. After giving informed consent, participants filled in the 45-minute survey either in the lab or on their own computers. Participants were told that the questionnaire concerned thoughts and attitudes, and no cover story was given as the survey did not deceive participants about the nature of the topic. Finally, data was cleaned according to the UCOM pre-registered data preparation document (<https://osf.io/rv4wf>) and country-level indicators were retrieved from publicly available online databases.

## **Participants**

### ***UCOM Inclusion Requirements***

The UCOM core team has pre-registered project-wide exclusion criteria and data quality requirements, available in the mentioned UCOM repository at <https://osf.io/rv4wf>, which the collaborator samples must meet in order to be included in the dataset. Originally it was pre-registered that collaborator samples had to meet at least 80% of the data collection requirements to be included (i.e., at least 128 participants, with at least 64 males and 64 females). However, it was also pre-registered (both in the UCOM data preparation document and in the pre-registration of this paper specifically) that it was likely that we would also accept data that does not meet these data collection requirements to, for instance, improve coverage of highly underrepresented parts of the world.

Following the pre-registered preliminary examination of data quality by university (p. 3 of the pre-registered UCOM data preparation document), no full collaborator samples were excluded as none showed very low data quality. For participants in specific, these quality requirements implied the exclusion of participants who have completed less than 80% of the

questions in the survey ( $n = 10765$ <sup>23</sup> excluded) or who failed at least one of the two attention checks ( $n = 3942$  excluded), indicating inattentiveness or non-completion. We also excluded participants who did not answer the gender identity question ( $n = 179$  excluded), as participants' gender is a key variable in all our hypotheses and we are unable to categorize participants if they did not answer this question. Finally, participants who completed the full survey in under 600 seconds (10 minutes) were excluded because it is impossible to read the survey attentively and complete the survey within this time frame ( $n = 236$  excluded). The dataset that meets these quality requirements consists of 125 universities in 49 countries with a total of 21474 male and female participants.

### ***Study-Specific Exclusion Criteria***

Additional exclusion criteria were used for the purpose of this thesis specifically. Participants with missing values on any of the exclusion criteria were also excluded as these criteria are important for a correct interpretation of our findings. We excluded participants who did not respond to the items of our outcome variable fear of backlash ( $n = 312$  excluded), as this is necessary for doing our analyses. In addition, since our research questions concern men, participants who identify as female or who answered that neither male or female best reflects their gender were excluded ( $n = 13295$  excluded). We also excluded participants younger than 17 or older than 30 ( $n = 224$  excluded) because our dependent variable asks participants to report fear of backlash for engagement in future childcare, which may be interpreted differently by younger or older participants. Further, participants who were sure they did not want to have children or participants who already had children were excluded ( $n = 504$  excluded), since we focus on participants' fear of backlash for engagement in future childcare. We also excluded participants who moved to the country in which their data was collected after the age of 14 ( $n = 446$  excluded). That is because these participants did not grow up in and were hence less socialized in that cultural context, which can result in error variance given that we use country-level indicators as predictors of fear of backlash. Additionally, we excluded participants who indicated being homosexual/gay or mostly homosexual/gay ( $n = 353$  excluded). This is because fear of backlash is related to traditional gender norms for men (Rudman & Fairchild, 2004), and individuals who define themselves as homosexual may be influenced differently by these norms. Moreover, many of the

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<sup>2</sup> The numbers noted after the exclusion criteria indicate the number of participants that were excluded on the basis of this exclusion criterium after the previous exclusion criteria were applied on the dataset.

<sup>3</sup> The number of participants excluded based on this criterium is high because it includes people who just opened the questionnaire but did not start the survey.

mechanisms described in the hypotheses are based on the dynamics between heterosexual partners. Finally, participants who belonged to universities of which there was data of less than six participants were excluded ( $n = 66$  excluded), since this indicates that these universities were not targeted by collaborators and participants probably ended up in the dataset by accident.

### ***Final Sample***

After applying these exclusion criteria, the final sample consists of 125 universities in 49 countries with 6274 undergraduate male participants in total. An overview of countries included in the final dataset, corresponding sample size and demographic characteristics per country can be found in Table 1. Across the total sample of 6274 participants, the mean age is 20.81 ( $SD = 2.47$ ), the mean subjective socioeconomic status (SES; on a status ladder from 1 to 10, cf. *infra*) is 6.15 ( $SD = 1.65$ ), and 45.92% pursues a HEED major, 4.67% pursues a social sciences major other than HEED, 34.79% pursues a STEM major, 9.10% pursues a business major, and 5.51% pursues a major other than the ones listed.

**Table 1**

*Countries Included in Dataset, Sample Size after Exclusions per Country, Means and Standard Deviations of Demographic Variables Age and Subjective Socioeconomic Status, and Frequency of Study Major per Country*

Country	Sample size	Subjective								
		Age		SES		Study major				
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5
Albania	58 <sup>a</sup>	20.74	1.49	6.21	1.58	9	8	32	6	3
Australia	151	20.56	2.47	6.50	1.58	85	2	44	12	8
Belgium	80	18.70	1.36	6.59	1.80	78	0	2	0	0
Bolivia	141	20.35	1.63	6.82	0.98	60	0	76	2	3
Canada	488	19.85	2.07	6.25	1.53	195	19	173	47	54
Chile	135	20.76	2.16	6.21	1.75	90	8	31	3	3
China	60	20.68	2.23	4.95	1.64	54	0	5	0	1
Colombia	145	20.14	2.12	6.89	1.71	28	3	53	50	11
Costa Rica	70 <sup>a</sup>	21.26	2.53	5.83	1.67	28	0	37	4	1
Croatia	207 <sup>a</sup>	22.39	1.44	6.08	1.53	23	14	169	1	0

Country	Sample		Subjective							
	size	Age		SES		Study major				
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5
Czech Republic	69	22.20	2.04	6.20	1.46	28	3	35	2	1
Denmark	39	22.74	2.86	6.33	1.51	25	2	5	5	2
Ecuador	62	21.81	2.80	5.95	1.09	58	0	0	2	2
Estonia	71	21.07	2.66	5.83	1.70	7	18	45	0	1
Ethiopia	90	21.72	2.16	4.88	2.11	56	0	34	0	0
France	144	20.33	2.46	5.43	1.64	97	1	41	2	3
Germany	190	22.48	2.89	6.43	1.53	116	15	36	19	4
India	66	19.74	1.09	5.36	1.60	22	1	37	0	6
Indonesia	78	21.40	2.80	5.74	1.57	62	2	2	3	9
Ireland	108	19.95	1.19	6.02	1.59	29	0	74	3	2
Italy	105	22.00	2.79	5.70	1.62	83	17	3	0	2
Japan	192	19.91	1.59	6.03	1.59	53	18	93	8	20
Kazakhstan	68	19.29	2.38	6.53	1.70	11	11	37	6	3
Kosovo	90	20.24	1.96	6.67	1.44	24	8	48	4	6
Lebanon	70	19.08	1.14	6.96	1.38	31	1	34	2	2
Lithuania	70	20.14	1.48	6.30	1.64	11	0	59	0	0
Malaysia	69	20.45	1.56	5.72	1.25	67	0	0	0	2
Mexico	45	22.09	2.65	4.91	1.68	29	7	5	1	3
Netherlands	129	21.19	2.17	6.60	1.55	122	2	2	1	2
New Zealand	101	18.88	1.33	6.51	1.56	67	3	16	6	9
North Macedonia	62	20.44	1.99	6.23	2.01	19	7	31	0	5
Norway	103	23.24	3.01	6.15	1.63	58	2	33	6	4
Pakistan	100 <sup>a</sup>	21.73	1.38	6.14	1.32	23	8	61	5	3
Palestine	25	23.48	2.90	6.20	1.35	20	3	1	1	0
Poland	102	22.26	2.17	5.56	1.64	28	5	55	9	5
Romania	77	21.51	2.48	6.03	1.57	58	0	6	3	10
Russia	64	20.86	3.14	6.27	1.45	44	4	7	3	6
Serbia	181 <sup>a</sup>	20.72	2.40	5.89	1.49	74	25	78	3	1
Singapore	84	23.11	1.38	5.39	1.59	30	8	38	8	0
Slovak Republic	102 <sup>a</sup>	22.08	1.52	6.11	1.30	21	2	62	12	5

Country	Sample size	Age		Subjective SES		Study major				
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5
		South Korea	81	25.02	2.08	5.95	1.73	21	2	51
Spain	140 <sup>a</sup>	21.24	2.33	6.44	1.26	63	3	42	27	5
Sweden	83	23.81	3.25	5.99	1.86	40	5	27	9	2
Switzerland	276	22.68	2.31	6.17	1.77	177	21	61	8	9
Tanzania	43	22.37	1.88	5.58	2.18	22	0	21	0	0
Turkey	158 <sup>a</sup>	21.41	1.71	5.73	1.53	79	1	75	2	1
Ukraine	110	19.81	2.17	5.42	1.50	72	2	5	15	16
United Kingdom	49	18.90	1.08	6.22	1.92	44	0	3	2	0
United States	1043 <sup>a</sup>	19.36	1.68	6.43	1.66	340	32	298	266	107

*Note.* 1 = HEED, 2 = other social sciences, 3 = STEM, 4 = business, and 5 = other. The numbers under study major represent the number of students in each of these study majors per country.

<sup>a</sup>These countries have one participant with a missing value on subjective SES (included in reported sample size).

## Materials and Measures

### *UCOM Questionnaire*

The UCOM questionnaire consisted of 182 items. A full list of items included in the English questionnaire with labels and scales can be found in the UCOM repository (<https://osf.io/rv4wf>).

The outcome variable central to this thesis “fear of backlash for putting their careers on hold to care for their children” was measured by three items within the questionnaire: “I would worry about being labeled negatively for putting my career on hold to care for my young child(ren)”; “I would be afraid that others would think I was odd for putting my career on hold to care for my young child(ren)”; and “I would worry that my career would be negatively affected if I decided to take voluntary (non-medical) parental leave (may be paid or unpaid) in the first two years of my child’s life”. Participants rated each item on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). To assess whether the items could be combined into one scale across different countries, a Cronbach’s alpha

analysis by country was performed – as indicated in UCOM’s data preparation pre-registration. Following the pre-registered criteria for 3-item scales, since 93.88% of all participating countries show a Cronbach’s alpha equal or greater than .55 and no countries show a Cronbach’s alpha smaller than .25, the three items were combined into one “fear of backlash scale”. Only Denmark, Ethiopia and Palestine showed low reliability (i.e., Cronbach’s alpha < .55). The overall Cronbach’s alpha of this scale across countries was .74. Results of the reliability analysis per country can be found in Appendix A.

### ***Country-Level Predictors***

Publicly available country-level indicators were used as predictor variables. Country-level indicators for our analyses were chosen on the basis of selecting the indicator that most closely measures the construct of interest and that included the most recent data for the largest number of countries in our sample.

**Female Employment Rate.** Country-level female employment rate was measured by the indicator WDI Female labor force participation ages 15-64 ( $n = 47^4$ , 2017), which was obtained from the World Bank (2019a). This index measures the percentage of women aged 15-64 that is economically active in a country, either by working or actively looking for work.

**Female Full-Time Employment Rate.** We computed an index that captures the percentage of all women aged 15-64 that works full-time in a country. This index is the product of the proportion of employed women and the proportion of women in regular employment that work full-time<sup>5</sup> multiplied by 100. To calculate the proportion of employed women, the indicator WDI Female labor force participation ( $n = 47$ , 2017) was used (we took the numerator of the percentage, e.g., 53% is .53). This indicator is obtained from the World Bank (2019a). For the proportion of women in regular employment that work full-time in a country, we used the indicator WDI Female part-time employment ( $n = 38$ , 2017), obtained from the World Bank (2019b). As this indicator represents the percentage of women in regular employment that work part-time instead of full-time, we transformed the data to proportions and subsequently subtracted it from one. According to the International Labour

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<sup>4</sup> The numbers noted after every country-level indicator specify for how many countries in the final dataset the indicator provides data.

<sup>5</sup> As this variable concerns the proportion of “all” women in regular employment, the age range will slightly differ from the female employment rate (age 15-64). However, for the female employment rate we specifically chose for the age range of 15 to 64 instead of age 15 and older, because otherwise in aging societies percentages of female employment would be lower (since a lower percentage of that population has the working age), which creates error variance. Furthermore, the hypothesized mechanisms (see Hypothesis 2) are mostly about couples with children living at home, therefore this age range is more relevant. Moreover, we expect no major issues when multiplying these two variables since the number of individuals that are employed and older than 64 is limited.

Organization, the WDI Female part-time employment measures “the percentage of women in regular employment for whom working time is substantially less than normal”.

**Duration of Exclusive Paternal Leave.** We computed an index of the duration of paternal leave in a country that is exclusively available to fathers (in days). This was computed by taking the sum of the duration of parental leave that is exclusively reserved for fathers (in days) and the duration of paternity leave (in days). Parental leave is leave that is available to both parents *after* the birth of their child. It depends on the country whether this parental leave can be shared between both parents and/or whether a certain period of the leave is reserved exclusively for the father or mother. Paternity leave is leave available to fathers *around* the birth of their child. Exclusive parental leave ( $n = 48$ , 2013) and paternity leave data ( $n = 48$ , 2013) were obtained from the International Labour Organization (2014; Appendix IV). As the International Labour Organization had missing data for Kosovo, data for Kosovo was retrieved from Davalos et al. (2015).

**Generosity of Exclusive Paternal Leave.** We computed an index of the generosity of leave that is exclusively available to fathers in each country. This index is the sum of (a) the duration of parental leave that is exclusively reserved for fathers (in days) multiplied by the rate of compensation (% of previous earnings) for parental leave and (b) the duration of paternity leave (in days) multiplied by the rate of compensation for paternity leave. The resulting indicator represents the number of days with 100 percent income (e.g., 10 days compensated at 80% would be 8 days) exclusively for fathers. Data was obtained from the International Labour Organization (2014; Appendix IV). Again, data for Kosovo was complemented based on Davalos et al. (2015).

**Gender Wage Gap.** The gender wage gap in a country was measured by the average income earned by women relative to income earned by men in a country, taking into account a country’s gross domestic product (GDP) per capita (US\$), the share of women and men in the labor force, and their mean nominal wages ( $n = 47$ , 2017). This means that a smaller score on this indicator corresponds to a larger gender wage gap. Data is obtained from the Global Gender Gap Report of the World Economic Forum (2017).

**Power Distance.** Power distance in a country was measured by the index power distance of Hofstede’s value dimensions ( $n = 38$ , 2010). A higher score indicates a higher power distance. Data is retrieved from Hofstede’s website:

<https://geerthofstede.com/research-and-vsm/dimension-data-matrix/>

### **Control Variables**

The demographic variables age, subjective socioeconomic status (SES) within

country, and study major described earlier are used as control variables and were measured at the individual level by self-report in the UCOM questionnaire. For the subjective SES, participants were asked to report where they think their family stands in comparison to others in their country (i.e., “Please think about where YOUR FAMILY stands in comparison to others in [country]. This ladder conceptually represents society where those with the highest socioeconomic status (Rung 10; i.e., those with the most money, highest education, and best jobs) are at the top and those with the lowest socioeconomic status (Rung 1; i.e., those with the least money, least education, and worst jobs) are at the bottom. Please choose the number that best represents where YOUR FAMILY is on this ladder compared to others in [country]”). As pre-registered, pairwise deletion was used for missing values at the participant level. As there are missing values in the subjective SES variable, analyses including controls will have a smaller dataset of 6265 participants (see Table 1 for missing values per country). Study major was effect coded into the following categories: 1) HEED (including psychology), 2) Other social sciences, 3) STEM, 4) Business, or 5) Other. Note that since most collaborators sampled from Psychology departments, those who did not answer the major question are counted as HEED majors for the purposes of analyses.

### **Data Analysis**

We first tested whether fear of backlash in men for putting their careers on hold to care for their children significantly varied across countries by extracting the intraclass correlation coefficient (ICC) using an empty three-level multilevel model with participants nested in universities nested in countries. Subsequently, three-level multilevel regression models were used to examine whether this variance in fear of backlash could be explained by country-level indicators. Key hypotheses were tested by adding all key predictor variables (i.e., female employment rate, gender wage gap, generosity of exclusive paternal leave, and power distance) simultaneously to a three-level model at country level in addition to all control variables. The two secondary hypotheses were tested by two secondary three-level models. For the first secondary model, we tested female full-time employment rate as a predictor of fear of backlash by using a model containing all key predictors and control variables, but replacing the female employment rate by the female full-time employment rate to control for the amount of hours that women are working in a country. The second secondary model tested the predictability of the duration of exclusive paternal leave by using a model containing all key predictors and control variables, but replacing the generosity of exclusive paternal leave by the duration of exclusive paternal leave as a predictor.

As described in this study’s pre-registration (<https://osf.io/yeu79>), we imputed missing

values for country-level predictor variables with multiple procedures ( $m = 10$  imputed datasets) using the R package Amelia II (Honaker et al., 2011). All analyses were repeated 10 times (once with each imputed version) and averaged results are reported here. The imputed variables are documented in detail in the variable overview sheet that is uploaded as a part of this study's pre-registration. In accordance with suggestions from our statistical consultant, we entered categorical control variables (i.e., study major) at the individual level, and continuous control variables at both the individual level and at the university level. Variables entered at the individual level were site-mean centered, variables entered at university-level were centered at the grand mean of universities, and variables entered at country-level (including predictor variables of interest) centered at the grand mean of countries. For the following analyses, we used conventional levels of statistical significance (i.e.,  $\alpha = .05$ ). All analyses were conducted in R/R Studio (version 4.0.2) and multilevel models were tested using the "lme4" package (Bates et al., 2015).

## **Results**

### **Descriptive Analyses**

#### ***Demographic Variables***

To assess differences in the demographic variables (i.e., control variables) between countries in the final dataset, we conducted a one-way analysis of variance (ANOVA) for age and subjective socioeconomic status (SES), and a chi-square test for study major. Findings showed significant differences between countries in age,  $F(48, 6225) = 54.78, p < .001, \eta^2 = .30$ , subjective SES,  $F(48, 6216) = 9.00, p < .001, \eta^2 = .06$ , and study major,  $\chi^2(192, N = 6274) = 2483.00, p < .001, \text{Cramer's } V = .31$ . Table 2 shows the correlations between individual-level fear of backlash and the demographic variables based on the full sample.

**Table 2***Sample-Level Correlations for the Individual-Level Variables*

Individual-level variable	1	2	3	4	5	6
1. Fear of backlash	—					
2. Age	-0.033**	—				
3. SES	0.003	-0.103***	—			
4. Major effect code 1	0.020	-0.067***	0.021	—		
5. Major effect code 2	0.023	-0.059***	0.047***	0.800***	—	
6. Major effect code 3	0.038**	-0.120***	0.105***	0.729***	0.824***	—
7. Major effect code 4	0.032*	-0.099***	0.052***	0.784***	0.852***	0.814***

*Note.* For study major effect code 1, 2, 3, and 4 respectively: HEED = -1, -1, -1, -1; STEM = 1, 0, 0, 0; other social sciences = 0, 1, 0, 0; business = 0, 0, 1, 0; other = 0, 0, 0, 1.

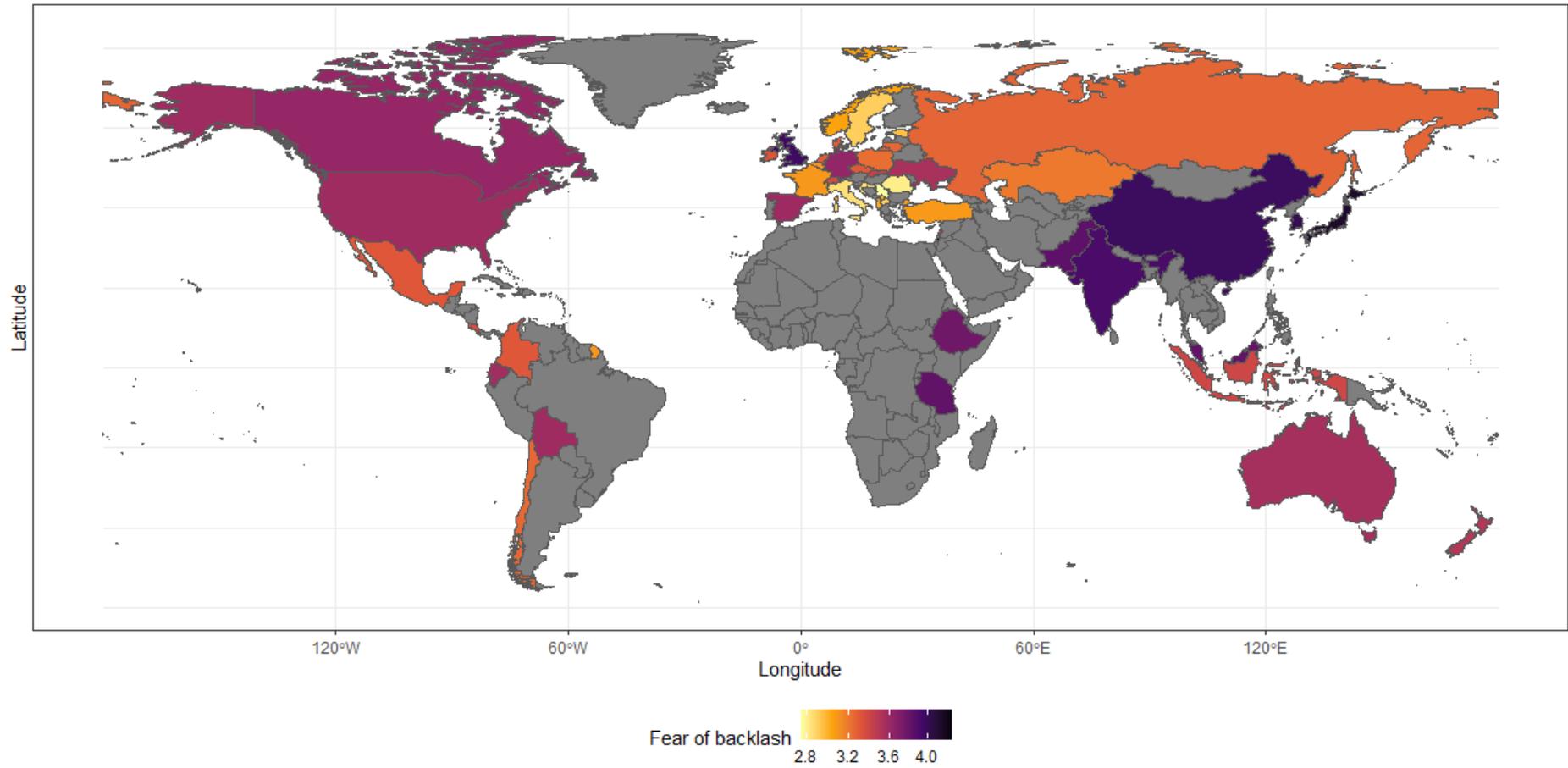
\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

***Fear of Backlash in Men across the World***

Our first aim was to test whether there exists significant country-level variation in the extent to which men fear backlash for putting their careers on hold to care for their children. The ICC at country level was .09, which indicates that fear of backlash in men indeed significantly varied across countries ( $ICC > .05$ ; Funder & Ozer, 2019). Starting from a multilevel model that only contained the indicated control variables, the country-level fear of backlash was estimated using empirical Bayes estimates, which are displayed for every country of our sample in Figure 1. The exact Bayes estimates can be found in Appendix A. Country-level fear of backlash scores range from 2.75 (Serbia) to 4.28 (Palestine), with an average score of 3.41 ( $SD = 0.38$ ). Overall, higher country-level fear of backlash scores are found for South Asian countries, African countries and the United Kingdom, moderate scores are found for countries in North and South America, Oceania, Russia, and some countries in Europe, and lower scores are found mostly for countries in Europe. The significant country-level variation in fear of backlash in men allowed us to subsequently test whether the key country-level predictor variables are able to (partially) explain this variance.

**Figure 1**

*Country-Level Fear of Backlash Scores across the World (49 Countries)*



*Note.* Countries displayed in gray are not part of our sample.

## Hypothesis Testing

### *Model Assumptions*

Assumptions were checked for key and secondary multilevel regression models (see Appendix B). In all models the conclusions regarding the model assumptions were the same. There were no indications of violations of the independence of errors assumption as multilevel regression analysis accounted for the clustered data nested within universities and countries. Visual inspection of the QQ-plots revealed a rather small violation of the normality of errors assumption, yet, multilevel regression analysis is fairly robust against violations of the normality assumption (Knief & Forstmeier, 2018). The residual plots showed no violations of the heteroscedasticity assumption. However, the residuals did show a downward trend, which suggested a violation of the linearity assumption. As this violation may bias the inferences, all models were re-run using the natural logarithm of the outcome variable. However, this additional analysis did not resolve the linearity violation in any model, and therefore, this violation is hereby indicated as a limitation of this study.

### *Key Predictor Variables*

The values on each of the key country-level predictor variables for each country can be found in Appendix B. The correlations between all country-level predictors and the country-level fear of backlash scores are presented in Table 3. The unstandardized coefficients and the standard errors of the model containing all key predictors are summarized in Table 4. The results from this table provide strong support for the gender wage gap hypothesis,  $t(39.74) = -2.94, p = .015$ . Namely, the results showed that a smaller gender wage gap in a country relates to less fear of backlash in men. The other key hypotheses were not supported. More specifically, this implies that the country-level female employment rate,  $t(41.30) = 2.23, p = .054$ , the country-level generosity of exclusive paternal leave,  $t(40.37) = -0.32, p = .76$ , and the country-level power distance,  $t(42.56) = 0.97, p = .37$ , all did not significantly predict men's fear of backlash for putting their careers on hold to care for their children. Control variables were not significant.

To test the robustness of the abovementioned findings – as indicated in our pre-registration – we also tested our key hypotheses in multiple other multilevel models that are slightly modified compared to the original model as presented in Table 4. Concretely, we tested whether the abovementioned findings replicate without the inclusion of control variables, without outliers<sup>6</sup>, without countries that show low reliability (i.e., Palestine,

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<sup>6</sup> Outliers were determined for each country separately and defined as observations that fall below the first quartile minus 1.5 times the interquartile range or above the third quartile plus 1.5 times the interquartile range.

Denmark, and Ethiopia), with the inclusion of GDP<sup>7</sup> as a control variable, while controlling for the country-level response bias<sup>8</sup>, and when adding all key predictor variables separately to a multilevel model containing only control variables. Across these variations, except for the model without the inclusion of countries with low reliability, the same predictors as in the original model were found to be significant predictors of men's fear of backlash. In the model excluding the three countries that showed lower reliability on the outcome measure, female labor force participation rate was found to be a significant predictor of men's fear of backlash in addition to the gender wage gap, although not in the hypothesized direction. More specifically, the more women are employed in a country, the more fear of backlash men experienced for putting their careers on hold to care for their children,  $t(39.62) = 2.68, p = .014$ . Nevertheless, in general, performing these variations did not alter our conclusions, which indicates that the findings are relatively robust.

### ***Secondary Predictor Variables***

We subsequently analyzed whether our secondary variables could predict men's fear of backlash for putting their careers on hold to care for their children. Results of the two secondary multilevel models (Table 4) did not support any of our secondary hypotheses as neither the country-level rate of full-time employed females,  $t(42.71) = -0.29, p = .67$ , nor the country-level duration of exclusive paternal leave,  $t(39.82) = -0.23, p = .83$ , predicted fear of backlash in men. Surprisingly, in the first secondary model in which we tested the hypothesis of full-time employment, the gender wage gap was no longer a significant predictor of men's fear of backlash,  $t(41.71) = -1.23, p = .26$ . The other predictors of this model remained nonsignificant. In the second secondary model in which we tested the hypothesis of the duration of exclusive paternal leave, gender wage gap was again found as a significant predictor of men's fear of backlash. However, in this model female employment rate was also a significant predictor of fear of backlash in men,  $t(41.31) = 2.30, p = .047$ . More specifically, the more women worked in a country, the more men feared backlash in that country. Although we primarily hypothesized the relationship to go in the opposite direction, we also

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<sup>7</sup> We included a control for GDP since the hypothesized country-level predictors of fear of backlash also measure gender equality (e.g., gender wage gap, female employment rate), and gender equality and GDP are strongly correlated (Mujahid & Zafar, 2012). Gross domestic product was measured by the indicator GDP per capita 2017, obtained from the World Bank (2019c).

<sup>8</sup> Following the pre-registered "covariate analysis" approach (<https://osf.io/rv4wf>, pp. 11-12), we created a "response-bias" score for each country which captures a country's tendency to agree with any item. Subsequently we explored whether this variable predicted country-level scores. As this "response-bias" score did not significantly predict country-level scores, the variable was not included in the analyses as a control variable.

outlined processes that could drive this opposite effect, as will be elaborated on further in the discussion section. The other predictors of this model remained nonsignificant.

**Table 3**

*Correlations for the Country-Level Predictor Variables and Country-Level Fear of Backlash Scores*

Variable	1	2	3	4	5	6
1. Country-level fear of backlash	—					
2. Female employment rate	0.081***	—				
3. Generosity of exclusive paternal leave	-0.292***	0.145***	—			
4. Gender wage gap	-0.228***	0.789***	0.306***	—		
5. Power distance	-0.172***	-0.431***	-0.044	-0.170***	—	
6. Female full-time employment rate	-0.066**	0.399***	0.019	0.553***	0.131**	—
7. Duration of exclusive paternal leave	-0.255***	0.191***	0.964***	0.296***	-0.103***	-0.018

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Table 4**

*Unstandardized Coefficients from the Key and Secondary Multilevel Models Predicting Fear of Backlash in Men,  $\beta(SE)$*

Predictor	Key model	Secondary model: Female full-time employment	Secondary model: Duration of exclusive paternal leave
Level 1: Individual level			
Intercept	3.413(0.063)***	3.413(0.066)***	3.412(0.063)***
Age	0.004(0.009)	0.004(0.009)	0.004(0.009)
Subjective SES	0.004(0.011)	0.004(0.011)	0.004(0.011)
Major effect code 1	0.021(0.036)	0.021(0.036)	0.021(0.036)
Major effect code 2	0.025(0.068)	0.027(0.068)	0.025(0.068)
Major effect code 3	0.037(0.054)	0.036(0.054)	0.037(0.054)
Major effect code 4	-0.015(0.063)	-0.015(0.063)	-0.015(0.063)
Level 2: University level			
Age	-0.014(0.028)	-0.014(0.029)	-0.015(0.028)
Subjective SES	-0.048(0.063)	-0.047(0.064)	-0.048(0.063)
Level 3: Country level			
Female employment rate	0.018(0.008)	—	0.018(0.008)*
Generosity of exclusive paternal leave	-0.002(0.006)	-0.005(0.006)	—
Gender wage gap	-2.630(0.897)*	-0.817(0.665)	-2.674(0.879)*
Power distance	0.003(0.003)	0.000(0.003)	0.003(0.003)
Female full-time employment rate	—	-0.002(0.008)	—
Duration of exclusive paternal leave	—	—	-0.001(0.005)
Marginal R <sup>2</sup>	0.019	0.011	0.019
Conditional R <sup>2</sup>	0.093	0.095	0.093

*Note.* Calculations of marginal and conditional R<sup>2</sup> were based on Nakagawa and Schielzeth (2013). For study major effect code 1, 2, 3, and 4 respectively: HEED = -1, -1, -1, -1; STEM = 1, 0, 0, 0; other social sciences = 0, 1, 0, 0; business = 0, 0, 1, 0; other = 0, 0, 0, 1.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Discussion

To this day, men's contribution to parental childcare remains limited in many countries with women still doing the bulk of childcare duties (Bureau of Labor Statistics, 2018b; Eurofound, 2017). Yet, men's involvement in childcare is important as it is related to many personal and interpersonal advantages, and it may be the key to achieve full gender equality (e.g., Kleven et al., 2019; Le & Impett, 2015; Zuffianò et al., 2016). Research suggests that fear of backlash is an important barrier to men's engagement in childcare, which could at least partially explain men's persistent underrepresentation in parental childcare (Rudman et al., 2012; Rudman & Fairchild, 2004). More specifically, because men are afraid of possible backlash, they will partially refrain from gender-incongruent behaviors such as being largely involved in childcare, especially at the expense of their career (Rudman et al., 2012; Rudman & Fairchild, 2004). Given that what is defined as gender-incongruent depends on the gender norms of a country, it seems reasonable to expect country-level differences in the amount of fear of backlash experienced by men for putting their careers on hold to care for their children, and to explain this fear by country-level indicators. However, these ideas were not yet empirically tested. Therefore, the purpose of the current research was to be the first to examine whether there exist differences across 49 countries in the amount of fear of backlash that young men experience for putting their careers on hold to care for their children, and to what extent country-level indicators can predict the amount of experienced fear of backlash in men.

Overall, the findings indicated support for both of these propositions. Specifically, using the intraclass correlation coefficient, we showed that there is significant variation across 49 countries in the amount of fear of backlash men experienced for putting their careers on hold to care for their children. Furthermore, using multilevel regression analysis, the findings showed that these differences across countries can be explained by (at least some) country-level indicators. Specifically, these findings put forward the gender wage gap as a potential country-level indicator that relates to the maintenance – although no causal inferences can be made – of men's fear of backlash as a barrier to a higher representation in parental childcare. In this way, we believe this is the first study to map the prevalence of men's fear of backlash for gender-incongruency across the world, and provide evidence for the potential of country-level indicators to explain men's fear of backlash. This work is echoed by recent findings of country-level variability in precarious manhood beliefs (Bosson et al., 2021). These findings are theoretically important as they expand scientific knowledge on fear of backlash for

gender-incongruency, and as they provide evidence for an existing relationship between men's fear of backlash and gender norms across the world.

In evidence of our first hypothesis (H1), we indeed found significant country-level variation in the extent to which men fear backlash for putting their careers on hold to care for their children. This finding is consistent with the suggested idea that differences in social structures and gender norms across countries translate into differences in experienced or expected backlash for gender incongruency, and subsequently different levels of fear of backlash in men across countries for putting their careers on hold to engage in parental childcare. This study is thus the first to map the prevalence of fear of backlash for gender-incongruency across the world, including in non-Western cultures. Therefore, these results show the potential for fear of backlash to serve as a barrier to men's involvement in parental childcare not only in Western countries, but in many countries across the world.

Concerning the country-level indicators, somewhat mixed evidence was found for our second hypothesis concerning the predictor female employment rate (H2). Differences in the female employment rate across countries only significantly predicted men's fear of backlash for putting their careers on hold to care for their children when controlling for the duration (rather than generosity) of exclusive paternal leave, and when excluding countries that showed low reliability. However, our key model did indicate the female employment rate as a marginally significant predictor of men's fear of backlash. A possible explanation for why the female employment rate became significant as a predictor when controlling for the duration of exclusive paternal leave rather than the generosity of paternal leave is that, by replacing generosity with duration of paternal leave, a little more to be explained variance was maintained in the fear of backlash variable, which made the effect significant.

Also, the effect was found to be in the opposite direction as stated in our primary hypothesis concerning the female employment rate. Thus, when controlling for the duration of exclusive paternal leave (rather than the generosity of paternal leave) or when excluding countries that showed low reliability, men experienced more fear of backlash in countries in which a higher percentage of women is employed. This opposite pattern was one however that we had indicated as a possibility as part of the preregistration. As stated in the hypothesis, it may be that when the proportion of female employment increases, more competition in the labor market or a larger focus on paid work also arises within a country. In line with this, men's likelihood of sharing in domestic work depends on how important paid work is in a specific country (Thébaud, 2010). This higher emphasis on agentic values in a country with a

higher female employment rate may explain the positive association between female employment and higher fear of backlash among men.

Nevertheless, as the association between men's fear of backlash and the female employment rate was not strongly significant and not apparent across all models, the association is likely to be small. Potentially, multiple processes resulting from the higher female employment rate counteract each other, leading to a small or non-significant effect. For instance, as indicated in the hypothesis, a higher emphasis on the labor market and paid work may prompt a positive association between fear of backlash in men for gender-incongruity, whereas higher expectations by women for men to contribute to childcare to compensate for the fact that women with strong careers have less time to invest in childcare may prompt a negative association between female employment and fear of backlash in men (see e.g., Meeussen et al., 2019; Meeussen et al., 2016; Reverberi et al., in press). These processes may take place at the same time and can thus be responsible for the small or non-significant results. As the significance of the female employment rate as a predictor depends on what is being controlled for, more research into the relationship between female employment and fear of backlash on the one hand, and its influence on men's representation in childcare on the other hand is needed.

In support of the gender wage gap hypothesis (H3), the gender wage gap was found to significantly relate to men's fear of backlash for putting their careers on hold to care for their children. More specifically, men experienced more fear of backlash for childcare involvement at the expense of their careers in countries in which the gender wage gap is larger (with men earning more than women). It is likely that men experience more fear of backlash for putting their careers on hold to care for their children in countries with a larger gender wage gap because the financial cost of putting their careers on hold will be higher in these countries, and pursuing financial success is an important part of men's gender norm prescriptions (Eagly & Wood, 1999; Meeussen et al., 2020). Furthermore, as a larger gender wage gap likely reflects a lower appreciation of female roles, it also indicates a lower status of these roles including childcare. Therefore, by being involved in childcare, and especially at the expense of their career, men violate the existing gender hierarchy, which results in a higher risk for backlash according to the status incongruity hypothesis. This higher risk for backlash likely translated into a higher fear of backlash.

This finding was very robust given that the gender wage gap was found to be a significant predictor of fear of backlash across multiple robustness checks. These findings suggest that the gender wage gap may serve as an important barrier to men's childcare

involvement (cf. *infra*). Nevertheless, when using the female full-time employment rate (secondary hypotheses) rather than the general female employment rate (key hypotheses) as a control variable, the gender wage gap was no longer a significant predictor of men's fear of backlash. This is likely the case because the gender wage gap does not take into account female part-time employment, while part-time employment is partially responsible for the gender wage gap. More specifically, one of the reasons for the gender wage gap is part-time employment among women, and thus countries that have a higher wage gap also tend to have more women working part-time. It could then be that what looks like an effect of the gender wage gap is actually in part a result of female part-time employment. This means that not only wages are important to equalize between men and women, but also the spread of part-time versus full-time employment. Future research can indeed further investigate which underlying factors of the gender wage gap are responsible for its association with fear of backlash for gender-incongruity.

The findings did not support the hypothesis of generosity of exclusive paternal leave as a country-level predictor (H4). In other words, the generosity of exclusive paternal leave was no significant predictor of men's fear of backlash for putting their careers on hold to care for their children. Although not in line with our hypothesis in which we expected less fear of backlash in countries with more generous leave, this null finding was very robust given that the generosity of exclusive paternal leave never significantly predicted men's fear of backlash regardless of the variables controlled for. Nevertheless, this finding should be interpreted with caution given the limited variability in this variable, as most countries give no or unpaid paternal leave, and countries that do are mainly WEIRD (Western, educated, industrialized, rich, and democratic; Henrich et al., 2010) countries. This limitation makes it difficult to draw conclusions about the true association between the generosity of exclusive paternal leave and fear of backlash, and, consequently, its role in men's underrepresentation in childcare.

No evidence was found supporting the hypothesis of power distance (H5). Namely, differences between countries in power distance did not predict men's fear of backlash for putting their careers on hold to care for their children. We mainly hypothesized power distance to be a significant predictor given that in hierarchical societies (i.e., countries with higher power distance) individuals are more inclined to comply with gender role prescriptions to conform to expectations of authorities, whereas individuals in countries with lower power distance are less bound by expectations of others to conform to gender role prescriptions (Tyler et al., 2000). Indeed, existing evidence shows that traditional beliefs about gender roles are less pronounced in countries with lower power distance (Best & Williams, 1998; Lee et

al., 2020). However, Lee et al. (2020) found that men and women may endorse traditional gender beliefs to a different extent, and that these differences are larger in countries with lower power distance. More specifically, the finding that traditional gender beliefs are less pronounced in less hierarchical societies is especially the case for women but not for men. As discussed in Lee et al., in countries with lower power distance individuals see each other as equals, and this may encourage the group members of lower status (i.e., women) to compare themselves to the group members of higher status (i.e., men), which likely results in a higher acknowledgement by women of the restrictions placed upon them by traditional gender roles and a greater rejection of such roles. While women in lower power distance countries then may hold less traditional attitudes, men's gender norms in lower power distance countries may still be more rigid and traditional, and this can be a reason why power distance does not predict men's fear of backlash.

To examine this explanation, we performed an additional analysis in which we used the country-level power distance to predict women's fear of backlash for advancing their career at the expense of their families in a multilevel model containing the same control variables as we used for men. In contrast to the male sample, the country-level power distance was indeed found to significantly predict women's fear of backlash for gender-incongruity. More specifically, women experienced more fear of backlash towards themselves in countries with lower power distance. It is possible that due to an increased intergroup comparison by women in countries with lower power distance, a higher acknowledgement of the restrictions placed upon them by traditional gender roles arises, which may result in more fear of backlash when behaving gender-incongruent. These results are thus in line with our proposition that there are meaningful gender differences in the endorsement of traditional gender beliefs and in the extent to which people are aware of them, which could explain the power distance findings.

Concerning our sixth hypothesis (H6), the results did not provide evidence for the female full-time employment rate as a predictor. More specifically, the female full-time employment rate did not significantly predict men's fear of backlash for putting their careers on hold to care for their children. As indicated above, the gender wage gap potentially already accounted for the variance that can be attributed to part-time employment, as part-time employment is also partially responsible for the gender wage gap. This possibility in combination with the finding that female employment did not predict men's fear of backlash for gender-incongruity (as described for our second hypothesis) may explain why this variable was as well not a significant predictor of men's fear of backlash.

Lastly, the results did not support the hypothesis regarding the duration of exclusive paternal leave as a predictor (H7). In other words, the duration of exclusive paternal leave did not predict men's fear of backlash for putting their careers on hold to care for their children. There can be different explanations for this finding. First, as in our hypothesis concerning the generosity of exclusive paternal leave, this finding may be the result of limited variability given that most countries give no exclusive paternal leave, and countries that do are mainly WEIRD countries. Therefore, it is hard to draw conclusions about the true effect of this variable. However, secondly, this finding can also imply that only taking into account the duration of exclusive paternal leave may not be enough to explain men's fear of backlash. Namely, we hypothesized that the predictiveness of the duration of paternal leave would be weaker – but not nonsignificant – than the predictiveness of the generosity of paternal leave, given that pursuing financial success is an important part of men's gender role prescriptions (Eagly & Wood, 1999; Meeussen et al., 2020). Thus, rather than duration of paternal leave less strongly predicting fear of backlash in men, it may be that the financial aspect of paternal leave (generosity) is actually essential for reducing backlash or expectations of backlash such that solely a longer duration of leave does not predict less fear of backlash in men. This is in line with findings indicating that a longer duration of unpaid leave in the US was not associated with more leave uptake (Han & Waldfogel, 2003); that the amount of salary coverage provided by parental leave in a country strongly predicts its uptake by fathers (e.g., Castro-García & Pazos-Moran, 2016; O'Brien, 2009); and that a loss of income is one of the main reasons for not taking parental leave for men in the US and Sweden (Seward et al., 2002). While the results did not indicate the generosity of exclusive paternal leave as a significant predictor of men's fear of backlash, the limited variability in the generosity of leave across countries does not allow us to draw resolute conclusions from this finding. Consequently, the hypothesized importance of the financial aspect of leave may just not be visible in our results. Future research should therefore further examine the effect of the generosity or solely the duration of exclusive paternal leave on men's fear of backlash, and its role in keeping men from increasing their representation in parental childcare through fear of backlash processes. Given the limited variability across countries in these variables, an examination of fear of backlash before and after a change in paternal leave policies within countries may be better suited to investigate these effects.

### **Strengths, Limitations, and Future Directions**

A major strength of the present study is that it uses data from a large and diverse sample of countries, which allows our study to make a broad assessment of differences in

men's fear of backlash across the world. Moreover, as this study is the first of its kind, it offers an important extension of the literature on fear of backlash for gender-incongruity by informing us about the prevalence of and variation in men's fear of backlash across the world, and providing us with meaningful insights into the extent to which country-level indicators relate to men's fear of backlash and hence indications of ways to address the barrier of fear of backlash to men's childcare engagement to further promote gender equality (cf. *infra*).

Of course, there are also some limitations. First, this study was carried out with male university students. Although young adults are an important sample because they are about to make impactful decisions concerning their career and family, this is also a highly educated sample which is likely more gender egalitarian than the general population (Carvacho et al., 2013; Cunningham et al., 2005; Hastie, 2007). Consequently, it may be more accepted and/or expected in highly educated, often quite democratic populations to have a more equal share of parental childcare, which may result in less fear of backlash in men for putting their careers on hold to care for their children in these populations compared to populations of lower educated men (see also Peterson, 2001). Additionally, education also affects the kind of jobs people are represented in, with lower educated men generally having less flexible work schedules, less opportunities to work from home, less income, and being less likely to receive pay during leave (Galinsky et al., 2011; Golden, 2001). Therefore, lower educated and employed men may face even greater sanctions for putting their careers on hold for childcare engagement than highly educated men. In turn, this may again lead to more fear of backlash in lower educated men. Still, while we would expect average levels in fear of backlash to be higher in a less educated sample, the cross-national variation therein and its relation to the country-level indicators may not be different. Future research could therefore investigate whether these relations are replicated in lower educated men.

Another likely issue of the sample of university students is that young adults' fear of the backlash they will face when putting their careers on hold to care for their children not necessarily corresponds to their actual experienced fear of backlash as working parents. Namely, the fear of backlash these men experience may change over time and is likely shaped by factors in their social and work environment (Haas et al., 2002; Stertz et al., 2020). Moreover, students may not yet have a clear picture about the amount of backlash that is to be expected from their family or work environment, and thus may fear backlash to a different extent compared to when they will be working parents. However, although men's fear of backlash may change over time, the amount of expected or feared backlash is theorized to

influence decisions concerning work, partner selection, and family life even before men become working parents, which makes students an important sample to examine.

A second limitation of the current study is its correlational design. Given the inability to claim causal certainty, the results cannot beyond doubt prove our assumption that men's fear of backlash is influenced by country-level indicators or gender norms. Of course, it is highly likely that men's fear of backlash in a country also maintains or even gives rise to certain social structures or gender norms. This is also consistent with social role theory (Eagly, 1987), which states that gender norms will change as a consequence of a change in the roles occupied by men and women. As we indicated fear of backlash for gender-incongruity as an important sociocultural barrier to men's childcare engagement, lowering fear of backlash is likely to result in a higher representation of men in childcare, and consequently, gender norms for men are likely to change as well. Nevertheless, as our study is the first of its kind and as the influence of country-level factors on individual factors are not easily studied using a different research design, our findings are still very valuable. Moreover, as we had young men – who are not yet working parents – anticipate their future life as working men and fathers, we have some indications that the relationship between fear of backlash and the gender wage gap is (at least) going in the hypothesized direction. Namely, most choices regarding work, family and childcare have yet to be made, making it more likely that their self-reported fear of backlash is the result of gender norms rather than the other way around. Longitudinal examinations of men's fear of backlash before and after impactful changes in country-level indicators (e.g., a sharp rise in employment rates, or a change in paternal leave policies) could give more insights into the causality or direction(s) of the effect, and future research could explore potential mediators.

As this is the first investigation of the relationship between country-level indicators and fear of backlash, further research is necessary to extend these findings and to further examine fear of backlash as a barrier to childcare engagement. It would be worth knowing, for instance, whether other country-level variables are better suited to explain men's fear of backlash for putting their careers on hold to care for their children, as we were only able to test a limited number of indicators. Moreover, this study showed that for specific indicators (e.g., female employment rate) the findings differed depending on what variables were controlled for. This highlights the importance of weighing and considering different country-level indicators in each other's presence. Additionally, this thesis specifically focused on men's fear of backlash as a barrier to their childcare engagement. However, fear of backlash may serve as a barrier to men's representation in other communal domains as well (e.g.,

engagement in HEED domains; Croft et al., 2015; Meeussen et al., 2020). Therefore, it may be interesting to examine the effect of norm setting in specific communal domains and the influence on men's fear of backlash. Potentially, men may perceive and receive different sanctions in other contexts, and as a result, the amount of fear of backlash as well as its country-level predictors may differ as well. Future research could thus investigate fear of backlash and its predictors in other communal domains.

### **Practical Implications**

Some initial practical implications can be drawn from our results. Given that men's lack of involvement in childcare is partially caused by the sociocultural barrier of fear of backlash created by gender norms, reducing this barrier is important to encourage more men to pursue childcare roles. The results above suggest that addressing the gender wage gap (and the role of part-time employment being almost exclusively for women in maintaining this gap) can be a potential way in which the barrier of fear of backlash to men's childcare engagement can be partially overcome, and the pursuit of gender equality – both in childcare and in income – further promoted. Thus, by tackling the gender wage gap (and the associated differences in part-time employment), men may be less restricted in their options and opportunities to pursue their personal communal aspirations. Moreover, men's consequential higher representation in parental childcare would allow men to enjoy all personal and interpersonal benefits related to childcare (e.g., greater well-being and better marital relationships; Le & Impett, 2015; Schindler, 2010), and following processes outlined in social role theory (Eagly, 1987), gender norms for men would also become less rigid and traditional, benefitting women, children and the larger society (Croft et al., 2015; Kleven et al., 2019; Meeussen et al., 2020).

We hypothesized that a larger gender wage gap increases men's fear of backlash mainly because of the higher financial costs – and thus more economic backlash – associated with fathers taking on paternal roles if they would put their careers on hold for it. Pursuing financial success is an important part of men's gender norm prescriptions (Eagly & Wood, 1999; Meeussen et al., 2020). In addition, when the gender wage gap is higher (with men earning more than women), women themselves will also be more dependent on their husbands' income, and therefore, men may be more likely to receive backlash from others if they would put their careers on hold to care for their children.

Given the potential importance of income on men's fear of backlash, at least two general interventions can be distinguished to counteract these financial costs. First, all interventions or policies that directly tackle the gender wage gap and consequently result in an

increase of women's income (e.g., by removing the glass ceiling and glass escalator) may be able to reduce men's fear of backlash for putting their careers on hold to care for their children. As men and women have more equal economic resources, the financial costs for taking on caregiving roles by putting their careers on hold will be less tied to men. An example of such a policy is the prohibition of pay secrecy (i.e., openly sharing income information), which has been shown to increase women's wages in the United States (Kim, 2015). Nevertheless, the gender wage gap has shown to remain resilient across many countries and years, and tackling the gender wage gap is very difficult as long as women are expected to do the majority of household and childcare duties (England, 2010; Mandel & Semyonov, 2005; Bureau of Labor Statistics, 2020; World Economic Forum, 2017).

As a second general intervention strategy, implementing policies or interventions that allow men to take on paternal roles without compromising their income are also likely to be essential in lowering men's fear of backlash and subsequently increasing their involvement in parental childcare. In line with this idea, paternal leave policies that provide men with higher salary coverage should reduce men's fear of backlash for putting their careers on hold to care for their children. We are aware that our results did not provide evidence for this idea. However, as indicated in our limitations, due to the very limited variability of this variable no firm conclusions can be drawn from these results. Other types of research may be better suited to provide evidence for this hypothesis, for instance by examining fear of backlash or childcare engagement before and after an impactful change in macro-environmental factors. Indeed, there is evidence from these types of studies for the idea that interventions that secure men's income when taking on paternal roles may be successful in increasing men's childcare engagement. In Sweden, for instance, a new policy 'daddy leave' was introduced in 1995, which had families lose one month of subsidies (changed to two months in 2002) if the father did not take any of the shared parental leave that was available to them (Johansson, 2010; Meeussen et al., 2020). These reductions in income that would occur if fathers did not take parental leave strongly increased the number of fathers that took parental leave and the duration of leave that was taken by them. Another example comes from Iceland, in which the maximum payment during parental leave was lowered as a result of a financial crisis that started in the year 2008 (Sigurdardottir & Garðarsdóttir, 2018). Consequently, fathers' use of parental leave declined, and mothers became more responsible for childcare duties to fill in this gap. These findings suggest that a change in maximum payments during parental leave may be an important driving force behind the changes in childcare engagement.

Although this intervention strategy (i.e., interventions protecting men against income loss when putting their careers on hold to care for their children) does not directly tackle the gender wage gap, reducing the financial costs for putting their careers on hold to care for their children may – by lowering men’s fear of backlash – eventually result in more men represented in parental childcare. This, in turn, may indirectly promote a smaller gender wage gap by, among others, giving women the chance to invest more of their time in the pursuit of career goals (Croft et al., 2015; Meeussen et al., 2020), and by making them less inclined to work part-time and choose occupations that favor family amenities which tend to offer lower wage rates (Kleven et al., 2019). Indeed, following the introduction of ‘daddy leave’ in Sweden as described above, women’s earnings have increased accordingly (Johansson, 2010). Thus, these findings support the possibility that by lowering men’s fear of backlash a smaller gender wage gap can be accomplished. At the same time, as indicated as a first intervention strategy above, interventions that tackle the gender wage gap may be able to reduce men’s fear of backlash for putting their careers on hold to care for their children. These ideas indicate a potential bidirectional relationship between the gender wage gap and men’s fear of backlash for putting their careers on hold to care for their children. However, as indicated in our limitations, data in the analyses do not allow confirming the direction(s) of this relationship.

### **Conclusion**

The current thesis provides the first evidence that men’s fear of backlash for putting their careers on hold to care for their children shows meaningful differences across 49 countries in relation to country-level indicators. Moreover, the results indicate that the country-level gender wage gap robustly relates to men’s fear of backlash. Namely, in countries in which the gender wage is smaller, men experience less fear of backlash for gender-incongruity. Although no information on causality or the direction of the effect, this examination gives us some indications that addressing the gender wage gap can be a potential way in which the barrier of fear of backlash to men’s childcare engagement can be tackled and the pursuit of gender equality further promoted. In addition, the results showed mixed evidence for the female employment rate as another predictor of men’s fear of backlash. Future research should therefore examine the potential of the country-level female employment rate to predict or tackle the barrier of men’s fear of backlash. More generally, this thesis indicates a relationship between factors at the national level such as gender norms and men’s childcare related expectations and behaviors. Understanding potential drivers of

men's fear of backlash not only extends research about fear of backlash as a barrier to men's childcare engagement, but also our capacity to foster gender equality across the world.

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**Appendix A**  
**Supplementary Tables**

**Table S1**

*Reliability Scores (Cronbach's Alpha) for the "Fear of Backlash Scale" and Empirical Bayes*

*Estimates per Country*

Country	Reliability ( $\alpha$ )	Bayes estimate
Albania	.78	3.01
Australia	.75	3.56
Belgium	.81	3.08
Bolivia	.71	3.58
Canada	.71	3.62
Chile	.72	3.25
China	.78	3.98
Colombia	.63	3.31
Costa Rica	.77	3.35
Croatia	.74	2.85
Czech Republic	.64	3.30
Denmark	.43	3.28
Ecuador	.65	3.57
Estonia	.64	2.95
Ethiopia	.44	3.77
France	.64	3.08
Germany	.73	3.63
India	.71	3.92
Indonesia	.76	3.39
Ireland	.62	3.32
Italy	.72	2.85
Japan	.76	4.16
Kazakhstan	.74	3.19
Kosovo	.74	3.01
Lebanon	.61	3.42
Lithuania	.66	3.25

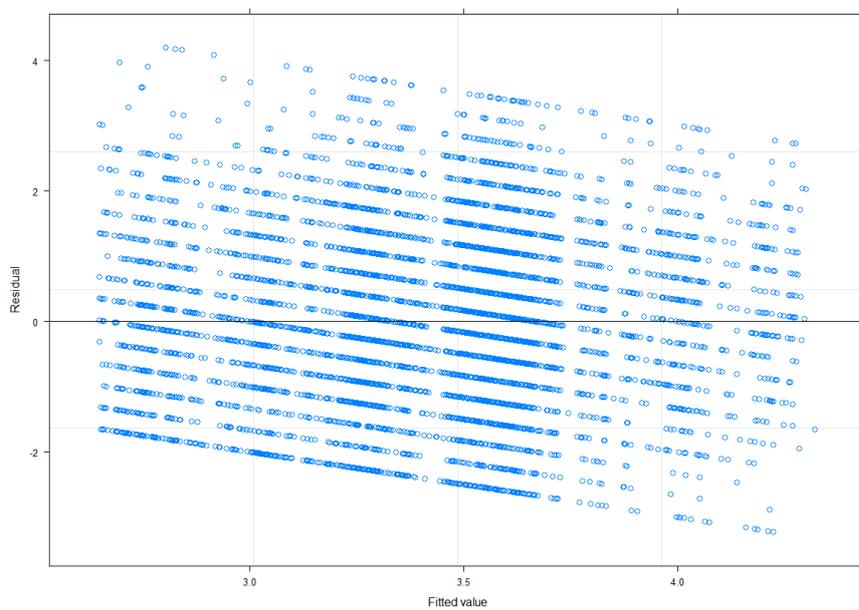
Country	Reliability ( $\alpha$ )	Bayes estimate
Malaysia	.74	3.83
Mexico	.66	3.31
Netherlands	.70	3.29
New Zealand	.66	3.50
North Macedonia	.65	2.90
Norway	.63	3.04
Pakistan	.73	3.85
Palestine	.48	4.28
Poland	.76	3.23
Romania	.81	2.81
Russia	.82	3.26
Serbia	.75	2.75
Singapore	.85	4.03
Slovak Republic	.68	3.42
South Korea	.74	4.02
Spain	.80	3.59
Sweden	.81	2.90
Switzerland	.74	3.36
Tanzania	.66	3.84
Turkey	.79	3.07
Ukraine	.63	3.54
United Kingdom	.80	3.97
United States	.74	3.58

## Appendix B

### Supplementary Figures

**Figure S1**

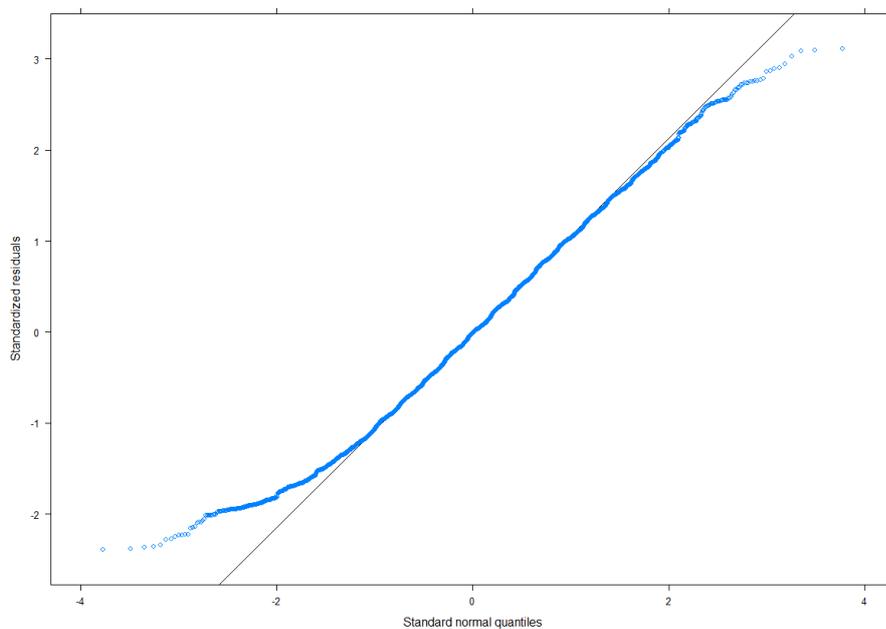
*Residual Plot of Key Model*



*Note.* Predictor variables were averaged across imputations.

**Figure S2**

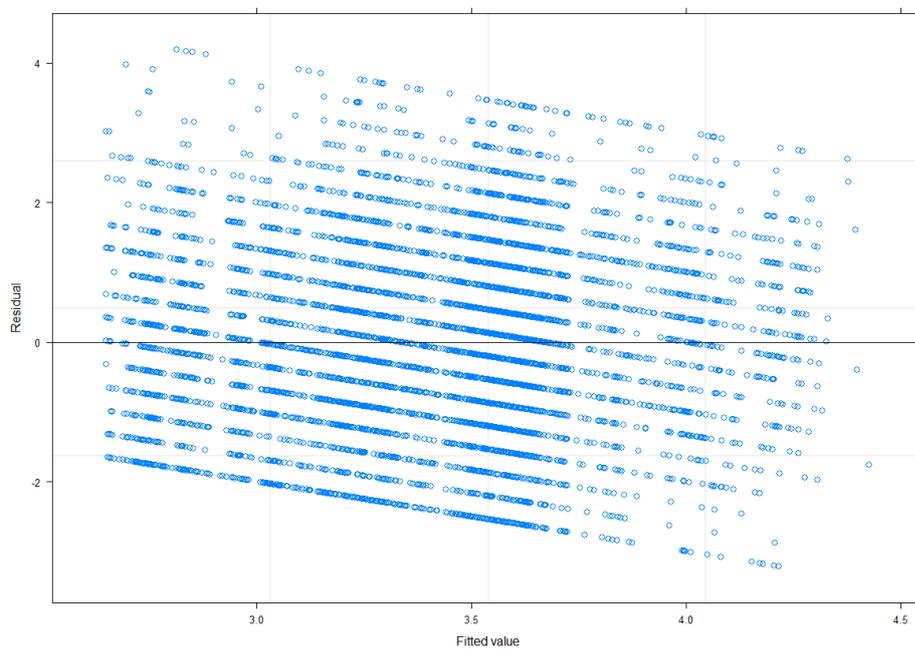
*QQ-Plot of Key Model*



*Note.* Predictor variables were averaged across imputations.

**Figure S3**

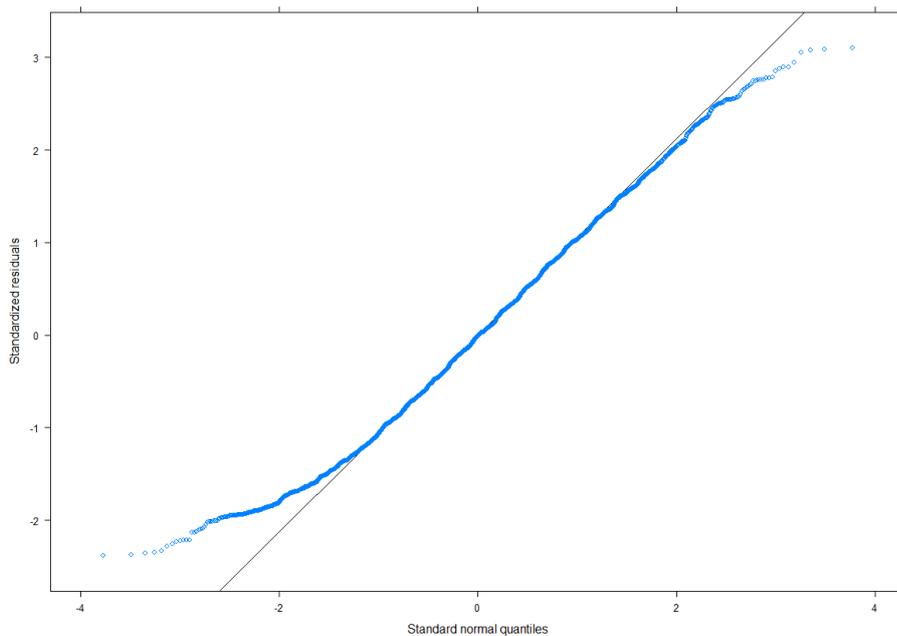
*Residual Plot of Secondary Model 1 (Female Full-Time Employment)*



*Note.* Predictor variables were averaged across imputations.

**Figure S4**

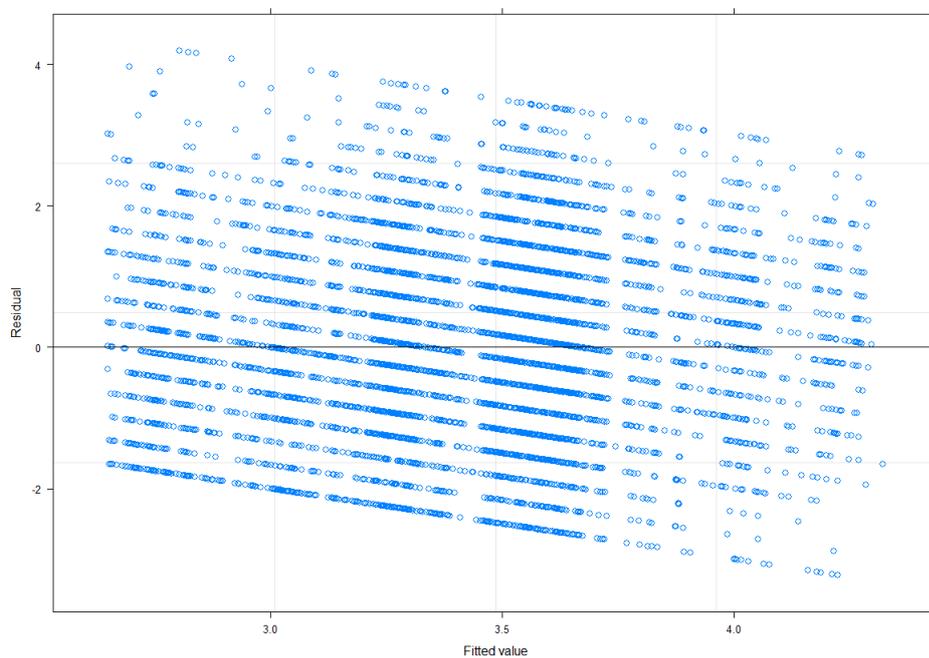
*QQ-Plot of Secondary Model 1 (Female Full-Time Employment)*



*Note.* Predictor variables were averaged across imputations.

**Figure S5**

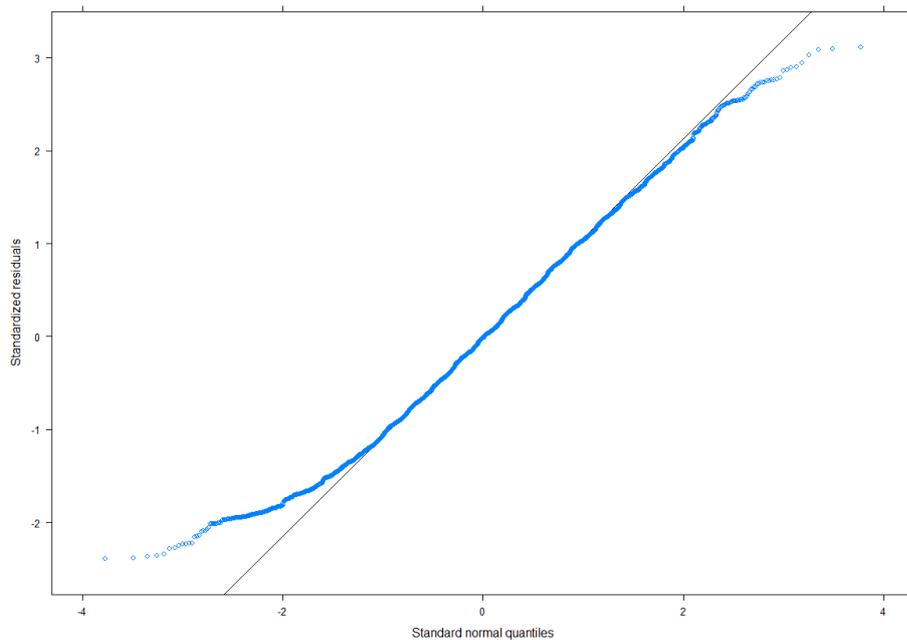
*Residual Plot of Secondary Model 2 (Duration of Exclusive Paternal Leave)*



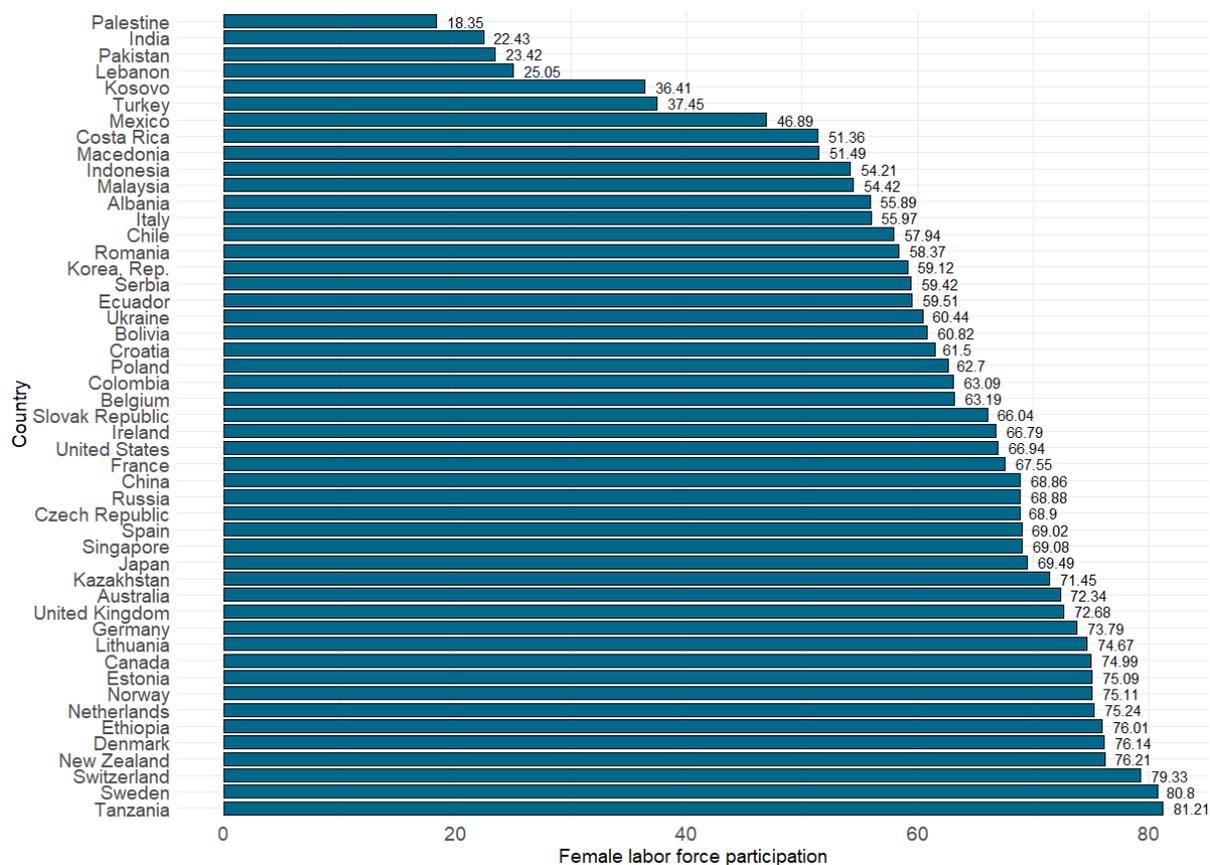
*Note.* Predictor variables were averaged across imputations.

**Figure S6**

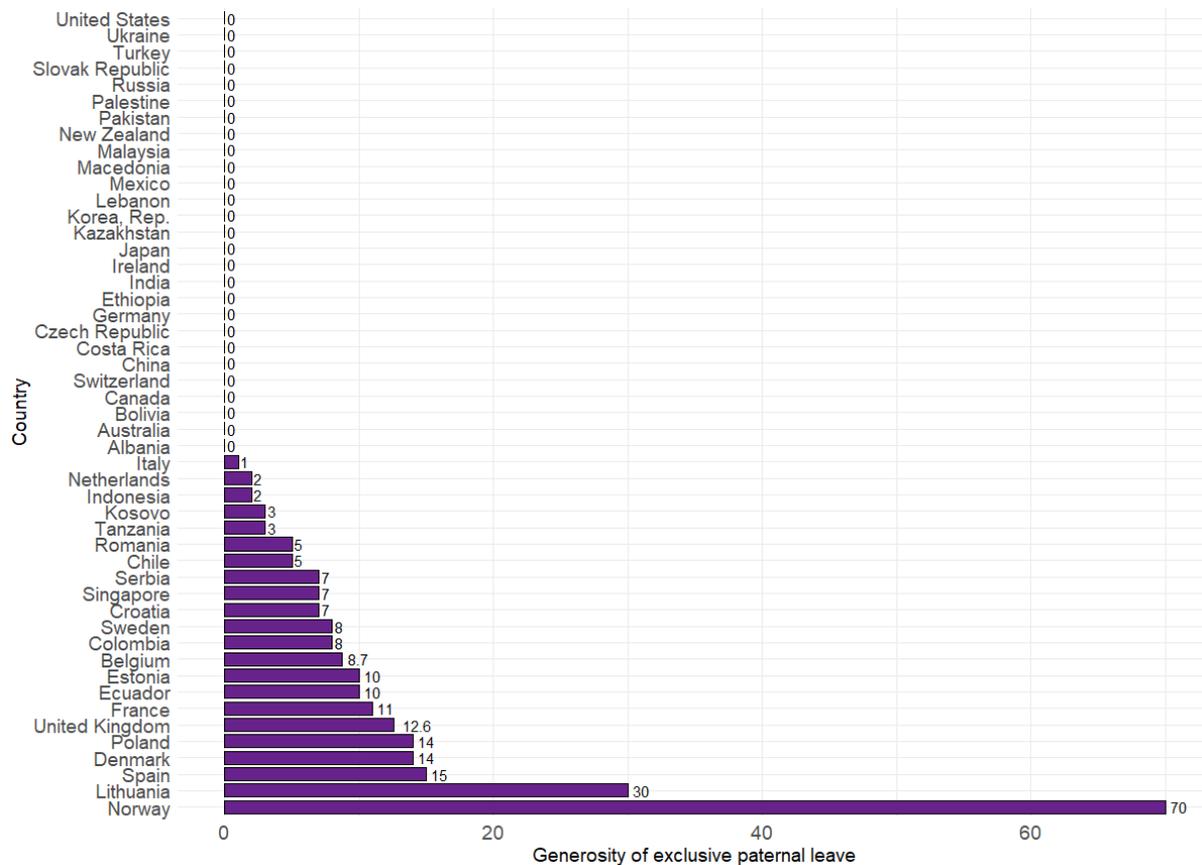
*QQ-Plot of Secondary Model 2 (Duration of Exclusive Paternal Leave)*



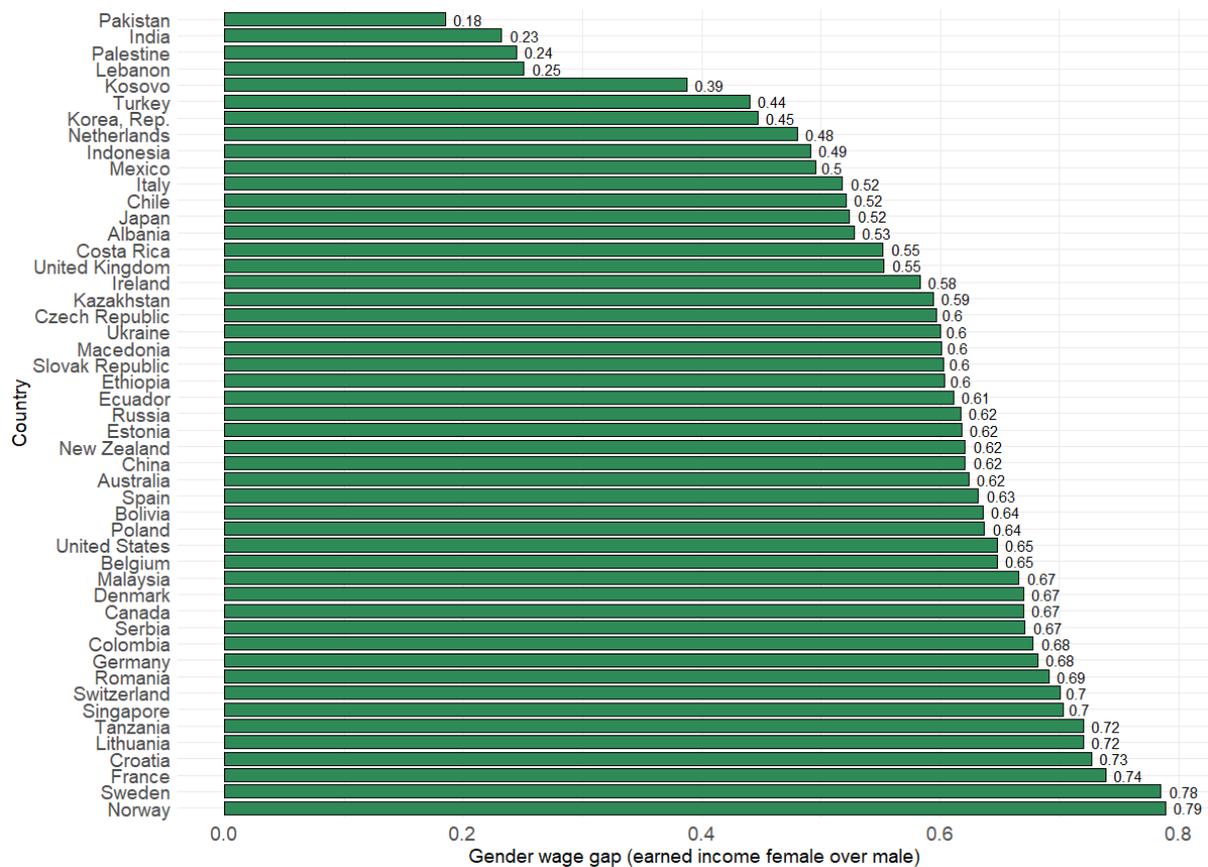
*Note.* Predictor variables were averaged across imputations.

**Figure S7***Scores per Country on Female Labor Force Participation*

*Note.* Scores represent the country-level percentage of employed females.

**Figure S8***Scores per Country on the Generosity of Exclusive Paternal Leave*

*Note.* Scores represent the number of days with 100 percent income.

**Figure S9***Scores per Country on the Gender Wage Gap*

*Note.* Scores represent the ratio of female estimated earned income over male.

**Figure S10***Scores per Country on the Power Distance*