

# **Paid Parental Leave and Fathers' Involvement: Capturing Fathers' Gender Beliefs and Fathering Perceptions**

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**Abstract:**

This study examines how multidimensional gender and fathering beliefs of fathers may explain their relative involvement in childcare after considering paid leave uptake. We draw on cross-sectional survey data from one German state, which allow us to distinguish three belief dimensions: (1) gender traditionalism and essentialism, (2) fathering attitudes, and (3) fathering self-concepts and self-efficacy.

By means of multiple linear regression models we investigate how the different dimensions of gender and fatherhood beliefs relate to fathers' relative involvement in basic and indirect childcare tasks.

Our results show that gender (essentialist) ideologies and fatherhood attitudes were strongly associated with fathers' relative involvement in both childcare domains. The higher fathers' perceived self-efficacy in fathering, the more involved they were in basic but not indirect care. All belief dimensions mediated the positive association of fathers' uptake of paid leave with their involvement in basic childcare.

**Key words:**

Parenthood and Father Involvement, Division of Child Care, Parental Leave, Gender Ideologies and Attitudes, Self-Concept and -Efficacy

**Word count:**

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## **Introduction**

A growing number of Western countries have introduced parental leave policies aimed at encouraging fathers' involvement in early childcare and a more equal distribution of domestic work between parents (Koslowski et al., 2019). Although a growing number of international studies suggest that fathers' leavetaking is mostly positively associated with greater involvement of fathers in housework and childcare (Boll, Leppin, Reich, 2011; Bünning, 2015; Rehel, 2014; Reimer, Andernach, 2015; Schober, 2014a; Schober, 2014b), less is known about attitudinal changes relating to parental leave take-up and fathers' involvement in childcare – mostly due to a lack of data. Most existing research on changing gender and fathering ideals and childcare practices (Bulanda, 2004; Cotter, Hermsen, Vanneman, 2011; Evertsson, 2014; Gaunt, 2006; Nordenmark, 2004) has implicitly understood gender beliefs on a continuum between traditional and egalitarian. Recently, however, cross-national studies on trends in gender beliefs have developed a multidimensional understanding of gender ideologies, suggesting an increasing complexity and variety of ideologies and attitudes towards gender roles (Grunow, Begall, Buchler, 2018; Knight, Brinton, 2017).

Our study examines to what extent multidimensional gender beliefs and fathering perceptions among fathers may explain their relative involvement in childcare during their child's early years after considering paid leave uptake: We draw on a cross-sectional survey from one German federal state collected in 2017/18 specifically designed to capture fathers' caring practices, gender beliefs and fathering perceptions. We focus on two dependent variables of fathers' relative involvement compared to the mother's involvement in providing for the child's basic needs and handling organisational tasks. Our key independent variables are three belief dimensions capturing (1) gender traditionalism and essentialism, (2) fathering attitudes, and (3) fathering self-concepts including self-efficacy.

Despite its cross-sectional design, our study complements previous research in three ways. We investigate how multiple dimensions of gender beliefs and fathering perceptions relate to fathers' relative involvement in childcare in a country with national parental leave policies. Our data allow us to capture multiple dimensions of gender ideologies and fathering attitudes in greater detail than previous research. By capturing several distinct care tasks, we are able to differentiate and compare detailed measures of fathers' relative involvement in two childcare domains, basic and indirect care, the latter of which is often neglected in research.

### **Institutional Context: Parental Leave in Germany**

Since 2007, Germany has had income-based parental leave (paid leave) legislation in combination with an individual leave entitlement for each parent. This paid leave (*Elterngeld*) ensures an income for young parents of between 300 and 1,800 euros per month depending on their former after-tax earnings. Since the introduction of *Elterngeld*, the proportion of fathers who took the previous parental allowance increased from just 4% in 2006 (Bujard, 2013) to nearly 36% among fathers with children born in 2015 (Destatis, 11.01.2019). Although parents are allowed to split the 14 months of paid leave in various ways, parents often understand the non-transferable individual entitlement as an incentive for fathers to take just two months of leave (Ehlert, 2008), with 80% of fathers taking only these months (Destatis, 11.01.2019). Nonetheless, some studies have shown that the 2007 parental leave reform increased fathers' childcare involvement (Schober, 2014b) and that fathers remain more involved in childcare after their paid leave is over (e.g. Bünning, 2015). Moreover, *Elterngeld* encourages mothers to take shorter career breaks, with mothers' employment rates in the second year after the birth of a child having increased significantly (Huebener et al., 2016). The introduction of *Elterngeld* went hand in hand with an expansion of public childcare for children under three years, as part of a broader transition to a more sustainable family policy in Germany. All children between 1 year of age and the age of school entry have been entitled to enrol in a daycare centre since 2013. Daycare enrolment rates and maternal labour market participation have increased

significantly (Ahrens, 2017; Zoch, Schober, 2018). Altogether, this has led to changing gender stereotypes and norms, contributing to a more gender-equal division of paid work and family responsibilities (Unterhofer, Welteke, Wrohlich, 2017).

### **Previous Studies**

Studies focusing on three different topics are relevant for this article. A first branch of the literature explores how mothers' and/or fathers' gender ideologies, gender essentialist beliefs or attitudes towards fathers' involvement relate to paternal childcare involvement. Several studies identified associations between parents' essentialist ideas of gender and fathers' involvement. Whereas parents who shared childcare (more) equally emphasised similarities, those who practised a more traditional division of labour referred to 'natural' differences between mothers and fathers (Coltrane, 1989). In another study, less essentialist views of mothers and fathers predicted higher fathers' involvement (Beitel, Parke, 1998; Gaunt, 2006). In Germany (Zerle-Elsäßer, Li, 2017), Sweden (Evertsson, 2014) and the U.S. (Bulanda, 2004), fathers who held less traditional gender ideologies were found to be more involved in childcare. Ideologies and attitudes have also been found to predict fathers' leave take-up: endorsement of involved fatherhood was positively associated with the likelihood of taking any and longer parental leave among U.S. fathers (Pragg, Knoester, 2017). Similarly, Duvander (2014) showed that whereas a strong economic orientation among Swedish fathers reduced the length of their leave, more egalitarian attitudes extended it.

A growing number of studies have shown that fathers' leave-taking can be associated with increased involvement in (everyday) care tasks even over the medium term. However, the extent of such effects depends on factors such as the length of leave-taking, how much responsibility the father bore during this time, whether the leave was taken solo or jointly with the mother, and the mother's approval of fathers' involvement (Boll, Leppin, Reich, 2011; Bünning, 2015; Rehel, 2014; Reimer, Andernach, 2015; Schober, 2014a; Schober, 2014b).

The most relevant strand of studies consists of a small number of recent longitudinal studies that were able to investigate the association between parental leave and fathers' involvement while also considering gender ideologies and/or fathering attitudes. Pragg and Knoester (2017) showed that in the U.S., claiming (longer) parental leave and (very) positive attitudes towards fatherhood predicted greater father engagement in certain care and pleasure activities one and five years after childbirth. Another complex study examined whether fathers' uptake of leave per se increased fathers' involvement and found limited support for this hypothesis. They found that the association between length of leave-taking and care-taking was partially mediated by fathers' attitudes (fathers' ideologies concerning the importance of fathers' involvement) (Petts, Knoester, 2018). We extend these studies by differentiating between different belief dimensions – gender ideologies, attitudes towards the father's role as well as fathering self-concepts – and by exploring their relationships with fathers' relative involvement while controlling for paid leave uptake.

### **Conceptual Framework**

In our research, we integrated several theoretical approaches from the fields of gender sociology and psychology to capture the complexity of how fatherhood beliefs relate to practices. We build our understanding of *fathers' involvement* on complementary conceptualisations that have emerged in the context of child development research. Accordingly, fathers' involvement includes paternal participation in various childcare tasks like planning, providing, monitoring, and availability (Hawkins, Palkovitz, 1999; Lamb et al., 1985; Pleck, 2010). We conceptualised two complementary childcare domains, basic and indirect care, to which our hypotheses refer. Basic care activities require direct interaction with the child: they include daily and urgent tasks which parents must undertake promptly when the child shows a need. These tasks represent the primary form of care in the domestic context and are necessary to ensure the child's wellbeing. In contrast, indirect care transcends the domestic field and links to the public sphere, as it involves non-daily and organisational tasks. It requires

an overview of childcare-related duties, appointments or deadlines, and a need to integrate oneself into child-related social networks. Thus, such tasks are linked to those recently classified as mental load/labour, which are often performed by mothers (Robertson et al., 2019). The timing for completing these tasks is more flexible. Most do not require direct interaction between the caregiver and the child. As a result, completing indirect tasks is not potentially rewarded in the form of a closer relationship with the child. In our understanding, this is a key difference between basic and indirect care.

Fathers' involvement is embedded in socio-structural processes of *doing gender* and *doing masculinity*. In line with the understanding of gender as “a routine accomplishment embedded in everyday interaction” (West, Zimmerman, 1987: 125) and “a social structure” (Risman, 2004), the current fatherhood discourse and recent findings for Germany reveal ambivalent expectations towards fathers (Schneider, Dabaté, Ruckdeschel, 2015). Despite increasing calls for and desires among fathers to be more involved in family work, the paternal role of the breadwinner persists (Bailey, 2015; Meuser, 2014; Meuser, Scholz, 2009) and “hegemonic masculine norms continue to shape fathers' behavior” (Petts, Shafer, Essig, 2018: 704). Although more and more fathers in Germany show interest in taking (longer periods of) paid leave, and such aspirations are gaining increasing public approval (Unterhofer, Wrohlich, 2017), a traditional workplace culture persists in many places (Reimer, 2019). In Germany, this reinforces role expectations of fathers as breadwinners and of mothers as the main caregivers during children's early years (Collins, 2019).

*Gender ideologies* are interrelated with understandings of femininity and masculinity because they shape gender itself by implying specific appropriate, socially acceptable behaviours ('doing') for women and men. The term 'gender ideology', as defined by Davis and Greenstein (2009), refers to “individuals' level of support for a division of paid work and family responsibilities that is based on this notion of spheres [with men as breadwinners and women as homemakers]” (p. 88). Consequently, this includes norms and narratives of

appropriate parenting which influence decision-making, parenting roles and the allocation of responsibilities. Traditional notions regarding the gender division of (un)paid work are often substantiated by an essentialist understanding of gender, which perceives women and men as thinking and acting in fundamentally different ways by nature (*gender essentialism*). These naturalised sex differences (i.e. interests and skills) lead to a gender hierarchy of male dominance and justify a gendered distribution of (un)paid work in society (Crompton, Lyonette, 2005; Gaunt, 2006; Skewes, Fine, Haslam, 2018).

Another set of beliefs we consider are *attitudes towards the father role*. These are interlinked with gender ideologies but influence fathers' involvement behaviour more directly and explicitly. These attitudes concern fathers' everyday behaviour and their fathering perceptions (Ajzen, Fishbein, 1977). Beliefs about one's role as a father can be distinguished from self-concept and self-efficacy, i.e. how fathers perceive their abilities and skills in childcare. A third relevant dimension concerns one's fathering *self-concept*. This includes not only perceptions of one's actual abilities but also ideals about how one wants to be. It is multifaceted and dynamic, as it reacts to the environment, regulates behaviour and organises experiences and actions. Fathers' gender-related self-concepts are also related to society's expectations towards fatherhood and fathering (Habib, 2012; Rane, McBride, 2000). Among the various cognitive factors which can predict behaviour, it is also important to consider *self-efficacy beliefs* (Bandura, 1986). Self-efficacy affects a person's perception, motivation to face challenges and situational performance. Self-efficacy regarding fatherhood expresses the "individual's appraisal of his (...) competence in the parental role" (Sevigny, Loutzenhiser, 2009: 179) and is needed to cope with new challenges. Moreover, (parental) self-efficacy is predicted not only by one's own achievements, others' actions and (implicit) feedback but also significantly by gender (McClennan Reece, Harkless, 1998). Fathers who had a weak self-concept (Storhaug, Sobo-Allen, 2018) or self-efficacy beliefs and did not feel competent in



conducting childcare were also less likely to accept the challenge of being an involved father (Hudson, Elek, Fleck, 2001).

In accordance with *doing gender* and *doing masculinities* perspectives, we hypothesise that the greater the extent to which fathers agree with essentialist and traditional ideologies, the less they will be involved in basic and indirect childcare tasks relative to the mother, as this allows them to appropriately enact their gender and role as a father (*Hypothesis 1*). We also assume that the more strongly fathers believe in the father's importance for child development and perceive themselves as involved and family-oriented fathers, the more actively involved they will be in basic and indirect care relative to the mother (*Hypothesis 2*). Third, we expect that the greater fathers' perceived competence and self-efficacy in the caregiving role, the more actively involved they will be in basic care activities relative to the mother (*Hypothesis 3*).

The growing ideal of involved fatherhood is more strongly related to father-child interactions and bonding than to organisational tasks related to childcare. Consequently, we assume that all three belief dimensions – gender ideologies, attitudes towards the father role, and fathering self-concept – relate less strongly to fathers' relative involvement in indirect care compared to basic care tasks (*Hypothesis 4*).

In line with previous studies (Boll, Leppin, Reich, 2011; Bünning, 2015; Rehel, 2014; Reimer, Andernach, 2015; Schober, 2014a; Schober, 2014b), we expect that fathers who take paid leave remain more involved in basic childcare relative to the mother even after their leave period ends (*Hypothesis 5a*). Fathers frequently report spending more time with or developing a closer bond with the child as one of their main reasons for taking paid leave (Peltz et al., 2017; Pfahl, Reuyß, 2009; Possinger, 2013). Considering that indirect care tasks involve less interaction with the child than basic care, we assume a weaker association between paid leave take-up and fathers' relative involvement in indirect care than in basic care (*Hypothesis 5b*).

Finally, we expect that fathers' gender ideologies, attitudes towards the father role and self-concept will fully or partially mediate the association between paid leave take-up and

fathers' relative involvement in childcare (*Hypothesis 6*). Previous studies have provided evidence that fathers with more egalitarian gender beliefs are more likely to take parental leave (Pragg, Knoester, 2017; Duvander, 2014), while other scholars suggest that taking parental leave may also lead fathers to alter their attitudes, without being able to measure these changes (Bünning, 2015; Patnaik, 2019; Rehel, 2014; Schober, Zoch, 2015). We assume the latter mechanism to be less important than the former but cannot examine the direction of this relationship based on our cross-sectional data.

## **Methodological Approach**

### **Data and Survey Procedure**

The 'Care-Practices of Fathers in Bavaria' project aims to study fathers' care practices and involvement in everyday family life. The project collected questionnaire-based data using an online survey between autumn 2017 and January 2018. We sent an invitation with a link to an online questionnaire by post to more than 3,000 fathers in nine different Bavarian towns. The selected towns had different population sizes and varying levels of paid leave uptake rates among fathers. Municipal offices provided the mailing addresses of children (focal child) and their fathers randomly from the municipalities' population registers in compliance with two selection criteria. The child had to be born within a defined period (1/7/2015–30/6/2016) to ensure that the children were of a similar age. The father had to be living in the same household with the child and his or her mother. After sending two follow-up reminders<sup>1</sup>, we achieved a response rate of 23%, which is in line with typical results for online studies (Petrovčič, Petrič, Lozar Manfreda, 2016). A total of 673 completed questionnaires could be used for the purposes of data analysis. However, around 100 fathers had some item non-response on the dependent or independent variables. Item non-response occurred most frequently for some items on the distribution of care tasks and for the attitudinal scales used for factor analysis. Furthermore, 78 fathers were still on leave at the time of the study and therefore had to be excluded. The

regression analyses including control variables were therefore based on a final sample of 532 fathers.

Around 70% of the fathers who took part in our survey had taken paid leave for the focal child. In contrast, the German Federal Statistical Office (6.10.2016) showed that less than half of fathers in Bavaria (2014: around 40%) took paid leave. This suggests that more involved fathers were more likely to answer the questionnaire, even though we approached all kinds of fathers. Furthermore, the sample slightly overrepresents older fathers and those with university entrance qualification or university degree (70%). The cross-sectional nature of the survey data implies clear limitations, as we cannot examine the (in)stability of fathers' involvement and gender beliefs over time. Nevertheless, the great strength of our data lies in their richness. The questionnaire comprised three key topics: the division of childcare and household tasks, gender beliefs and fathering perceptions, and fathers' take-up of paid leave.

## **Measures and Analytical Strategy**

### **dependent variables**

The questionnaire asked fathers about the relative division of child-related daily tasks (14 items) and organisational and non-daily tasks (7 items) with the child's mothers. We adjusted and extended the relevant parts of the "Who Does What?" scale (Cowan, Cowan, 1988). Responses were recorded on a five-point scale ranging from 1=(almost) completely the mother to 5=(almost) completely the father. For the basic care scale, however, we narrowed the question to situations where both parents are present and available: we wanted to prevent answers from reflecting merely variation in time availability as a result of the couples' division of paid work.

In line with domains used in other studies (Lamb et al., 1985; Pleck, 2010), we built two scales capturing the domains of basic and indirect care, respectively. We standardised each item and generated two mean-index variables. The variable 'basic care' operationalises how intensively fathers are involved in taking care of the child's basic needs such as feeding,

changing diapers, and caring for the child at night compared to their partners. The variable has a Cronbach's alpha of .81, which shows high internal consistency.

The variable 'indirect care' describes how intensively fathers compared to mothers are involved in non-daily and organisational childcare tasks, such as buying clothes; organising a babysitter, institutional childcare or playdates and arranging medical check-ups. The variable has a Cronbach's alpha of .70 and shows hence a sufficient level of internal consistency.

### **key predictors**

*Gender beliefs and fathering perceptions.* To obtain a broad picture of fathers' gender beliefs and fathering perceptions, we included three comprehensive scales in our questionnaire.

To measure fatherhood ideologies, we adapted "The Role of the Father Questionnaire" (Palkovitz, 1980; Palkovitz, 1984), which measures (dis)agreement regarding the importance of fathers for children's development. We chose seven of the 15 items from the original scale to capture fatherhood ideologies as well as gender essentialism and masculinity and translated them into German. Our respondents indicated their (dis)agreement with each item on a five-point scale ranging from 1=strongly agree to 5=strongly disagree. To operationalise fathers' self-concepts regarding their fathering role, we used ten items capturing their self-assessment of their own fathering and self-efficacy taken from established family surveys, such as "Growing Up in Germany Today" (Walper, Bien, Rauschenbach, 2015), and the extension study "Family-Supportive Working Conditions and Couples' Division of (Un)Paid Work" (Bernhardt, Hipp, Allmendinger, 2016). The response scale ranged from 1=agree completely to 5=disagree completely. The third scale encompassed five items focussing on gender ideologies taken from "Growing Up in Germany Today". It operationalised beliefs about the ideal distribution of gender roles, including the division of (un)paid work (care/breadwinning). Here again, the extent of (dis)agreement was measured from 1=strongly agree to 5=strongly disagree.

We performed a factor analysis<sup>2</sup> with all items of the three scales mentioned above (see Table 1 for a list of items and factor loadings). We first performed an exploratory polychoric factor analysis (principal factors; unrotated) on all 22 standardised items. Three factors were identified based on the eigenvalues. We then performed a second polychoric factor analysis (principal factors; rotation: orthogonal varimax [Kaiser off]), this time forcing a three-factor solution, which we rotated to facilitate interpretation. We simplified the factor loading structure by focussing on factor loadings exceeding 0.3. Each of the three factors represented one specific dimension of fatherhood beliefs.

The first dimension, *essentialist-traditional fatherhood beliefs*, consisted of traditional gender and fatherhood ideologies and represented an essentialist mindset regarding gender and the distribution of gender roles. The items can be summarised as follows: Women are naturally more suitable for care, whereas men lack the basic requirements for care because they are not able to express tender and affectionate feelings towards (young) children. Consequently, a father does not have to be involved as much in the child's upbringing; instead, he is considered more responsible for supporting the family economically.

The second dimension, *meaningful fatherhood beliefs*, aligned with modern fatherhood ideologies, seeing fathers as important and active members of the family, equal to mothers. It included statements such as: It is important for children's well-being and personality development their fathers have lots of time for them. According to this view, investing time and energy in the family is the most important thing for men because fatherhood is a highly rewarding experience.

The third dimension, *competent fatherhood beliefs*, focuses on fathers' perceived competence and effectiveness in child-related tasks. It is mainly based on items asking about fathers' attitudes towards their role as a father, including primarily their fatherhood self-concept and self-efficacy. This dimension differs from the first in its non-traditional and non-

essentialist orientation and from the second in that it primarily refers to perception of one's role as a father.

Table 1 indicates which items compose each dimension of fatherhood beliefs. Eight items loaded onto two factors each, which can be explained by either the complementary (two items) or the opposing nature of the factors (six items), as some items load positively onto one dimension and negatively onto the other. The three belief scales are only weakly correlated with each other ( $r = -0.01, -0.02, 0.01$ ), suggesting that they capture indeed different dimensions of fathering-related beliefs.

*Paid parental leave.* A further independent variable for our fifth hypothesis indicated whether the father had taken a period of paid leave for the focal child (1=yes/0=no).

[Table 1 here]

### **control variables**

We included a range of socio-demographic variables in our regression model, which, according to the literature, are likely to relate to our dependent and key independent variables. We included dummy variables representing whether the child attends formal childcare<sup>3</sup> and whether multiple children are living in the household. We also included the father's age and educational level, a variable indicating the mother's educational status relative to that of the father and finally a dummy variable indicating whether either parent has a migration background. Variance inflation factors showed no risk of multicollinearity for any of the independent or control variables.

[Table 2 here]

### **analytical strategy**

We applied two multiple linear regression models (Table 3), one for basic and the other for indirect care, which were extended stepwise to test each hypothesis. In the first model (M1), we tested whether fathers who had already taken leave for the focal child were more involved in childcare than fathers who had not taken leave (H5) while also including control variables.

In the next model (M2), we added fathers' gender essentialist beliefs and ideologies, meaningful fathering attitudes, and competence perceptions to the model. This allowed us to examine the relationships between the three belief dimensions and fathers' relative involvement in basic and indirect childcare (H1-4). Furthermore, we tested whether the relationship between leave uptake and fathers' involvement weakened after considering the three belief dimensions (H6).

## Results

Descriptively, we first find that mothers are still slightly more involved in basic care than fathers. About half of parents share most of these tasks equally, whereas the mother performs most of these tasks in about one-third of couples. This relatively egalitarian picture regarding basic care reflects both the fact that our question focussed on situations when both parents are present and available to take care of the child's needs and possibly also self-selection bias in our sample. Our second finding is that fathers are less involved in indirect tasks than mothers. Overall, it appears that only a few fathers are predominantly entrusted with basic or indirect tasks.

Regarding the hypotheses, the first linear regression model with **basic care tasks** as dependent variable (Table 3) shows a significant positive association of *20% of a standard deviation* with paid leave uptake while accounting for the control variables (*Model 1*). In line with Hypothesis 5a, couples in which fathers completed a period of paid leave appear to divide basic childcare tasks more equally than those in which fathers did not take paid leave.

In *Model 2*, we added the three dimensions of fatherhood beliefs to the model, and as expected, all three coefficients were significantly associated with fathers' relative involvement. Regarding Hypothesis 1, the *essentialist-traditional fatherhood beliefs* dimension shows a highly significant negative association with involvement in basic care. The more traditional fathers' gender ideologies, the less they are involved in basic childcare compared to the mother, as indicated by a relatively strong relationship of *-30% of a standard deviation*. In line with

Hypothesis 2, the more strongly fathers endorse *meaningful fatherhood beliefs* and conceptualise themselves as an essential part of the family, the more they are involved in basic childcare. The strength of the association is modest at 11% of a standard deviation. Similarly, in line with Hypothesis 3, the more competent fathers feel in their father role in terms of self-efficacy (*competent fatherhood beliefs*), the more equally they divide up basic childcare with their partners. This association is moderate, at 18% of a standard deviation.

After including the dimensions of fatherhood beliefs, the relationship between fathers' involvement and paid leave ceases to be statistically significant. In line with Hypothesis 6, this suggests that it is not leave take-up itself but rather fathers' beliefs about gender roles and the importance of fathers for the child and the family drive greater relative involvement by fathers in basic care.

[Table 3 here]

The results of the **indirect care model** differ from the basic care model in two ways. Firstly, Table 3 referring to Hypothesis 5b shows that the relationship between fathers' involvement in indirect care and paid leave is weaker and not statistically significant (*Model 1*). Secondly, not all three dimensions of fatherhood beliefs are significantly associated with fathers' involvement in indirect care. Similar to the models for basic care, the analyses indicate a moderate association of -24% of a standard deviation with more traditional gender ideologies among fathers. Hypothesis 1 is therefore also supported for indirect care. Similarly, in line with Hypothesis 2, the more fathers believe that fathers' involvement is necessary for the child and his or her development, the more actively involved they are in indirect childcare, as indicated by a modest association of 12% of a standard deviation. However, in contrast to our assumption in Hypothesis 3, fathers' perceived self-efficacy in fathering is not significantly associated with relative involvement in indirect care. This may be because several items in this scale focus on perceived competence in performing basic childcare tasks.



Hypothesis 4 assumed that all three belief dimensions relate less strongly to fathers' relative involvement in indirect care compared to basic care tasks. However, the associations of fathers' gender ideologies and attitudes towards the father role with basic and indirect care division proved to be quite similar. Only fathering self-concept clearly exhibited a weaker and non-significant relationship with indirect care compared to direct care involvement, in line with Hypothesis 4.

Hypothesis 5b regarding the weaker relationship between fathers' uptake of leave with indirect compared to basic care involvement was supported, as paid leave was not significantly associated with fathers' involvement in indirect care even before considering fathering beliefs. As a result, however, the mediating relationship proposed in Hypothesis 6 has to be rejected with respect to fathers' relative involvement in indirect care. In general, the R-squared value of the regression model for indirect care (0.13) was lower than that of the model for basic care (0.2), suggesting that the included independent variables had lower explanatory power for the former.

Additional linear regression models for basic and indirect care in which the dimensions of fathering beliefs were not inserted simultaneously but separately indicated no noteworthy differences in the regression coefficients of the three factors compared to those reported in Table 3. Furthermore, the significance of paternal leave uptake vanished irrespective which of the three dimensions of fatherhood beliefs we added to the model. For this reason, we assume that the factors capture different theoretical concepts exhibiting differential and mostly significant relationships with fathers' involvement.

### **Conclusion and Discussion**

Drawing on cross-sectional survey data from a large German federal state (2017/2018), our study first aimed to explore how different dimensions of beliefs vary in their associations with the gender division of basic and indirect childcare. We generated three factors capturing different dimensions of fatherhood beliefs by differentiating fathers' gender (essentialist)

ideologies, attitudes towards their role as a father, and perceived fathering self-efficacy. Secondly, we examined whether the relationship between fathers' take-up of paid leave and relative childcare involvement is mediated by fathers' gender beliefs and perceptions of fatherhood.

Overall, *essentialist-traditional fatherhood beliefs* correlated most strongly with involvement in basic and indirect care. This dimension represented an essentialist mindset regarding gender and the endorsement of strict gender roles based on assumed 'natural' gender differences. The more the fathers endorsed such beliefs, the less involved they were in both basic and indirect care. Our results differ from those by Gaunt (2006), who differentiated between essentialist perceptions and gender ideologies and found that only the former were highly associated with childcare involvement. We found that in our sample of fathers with young children, these two conceptual domains were strongly correlated, loaded on the same factor and contributed to explaining variation in relative paternal childcare involvement. The *meaningful fatherhood beliefs* dimension we identified aligned with modern fatherhood ideologies and conceptualised the father's role as a meaningful caregiver for the child. The more fathers agreed that fathers are highly important for their children's development and endorsed aspects of caring masculinities, the more involved they were in basic and indirect childcare relative to the mother. The *competent fatherhood beliefs* dimension exhibited slightly weaker predictive power. The higher fathers perceived their competence and self-efficacy in fathering, the more involved they were in basic care but not indirect care of the child. This may be because the self-concept scale focused on self-efficacy regarding routine childcare. Interestingly, gender (essentialist) ideologies and fatherhood attitudes were strongly associated with fathers' relative involvement in both childcare domains. Future research should also take into account mothers' beliefs to better understand possible maternal gatekeeping behaviours.

Whereas leave uptake did not relate to greater paternal involvement in indirect care in the *first place*, we showed for basic care that paid leave was not significantly associated with

fathers' involvement *any longer after* accounting for the three dimensions of fatherhood beliefs. This finding is in line with Petts and Knoester (2018: 1159), who found “some evidence that father commitments and attitudes may shape the relationships between paternity leave and father engagement”. Moreover, our results confirm findings by Craig and Mullan (2011) who showed that attitudes “outweigh individual- and household-level characteristics”. Paid leave likely enables fathers to enact their ideals of fatherhood (more). However, it is worth noting that the reverse relationship is also possible, as leave uptake, particularly when a longer period of leave is taken, may also alter fathers' attitudes/ideologies or perceived competence. Since most fathers who take leave in Germany tend to take only up to two months of leave, we assume that the latter mechanism is less important than the former.

Our decision to differentiate between direct and indirect care in order to operationalise fathers' relative involvement turned out to be insightful, as fathers' leave uptake was only associated with the former care domain. Examining why fathers do not get more involved in indirect care after taking leave would be an interesting direction for future research.

Our research is also subject to limitations due to the cross-sectional nature of the data, the rather small sample size and non-response bias. Furthermore, we cannot differentiate between fathers who chose to take longer periods of leave and those who only claimed the bonus-months, nor between those who took leave solo or jointly with the child's mother.

Despite these limitations, this study extends the existing literature on the multidimensionality of gender beliefs (Grunow et al., 2018; Knight and Brinton, 2017) by specifically focussing on fathers with young children and exploring associations with fathers' relative involvement in two childcare domains. In line with recent studies on gender ideologies (Grunow, Begall, Buchler, 2018; Knight, Brinton, 2017), our findings indicate that multidimensional constructs of fathers' beliefs are better suited to capture the variety of fatherhood conceptualisations in German society than a continuum from traditional to egalitarian ideologies. One promising avenue for future research would be to explore non-

continuous relationships between multiple relevant dimensions of fathering beliefs: for instance, latent class analysis could be applied to representative data to identify different groups of fathers. Future longitudinal research should also build on the proposed measurements to disentangle selection and attitudinal change processes in order to further our understanding of how governments' family policies shape gender cultures and caring masculinities with respect to both beliefs and practices.

### Footnotes

<sup>1</sup> In order to improve response rates, incentives (shopping vouchers) were applied.

<sup>2</sup> We used Stata 13.1 for all analyses. The items included in the factor analysis were standardised and, where necessary, inverted beforehand.

<sup>3</sup> Although this variable cannot be a confounder due to chronological order, we decided to include it because studies have shown that there is a link between outsourced childcare and greater father involvement.

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## Tables

<b>Table 1. Items Forming Each of the Dimensions of Fatherhood Beliefs*</b>	
<b>essentialist-traditional fatherhood beliefs</b>	<i>factor loadings</i>
Even if a woman works, the man should be the primary earner, and the woman should be responsible for the household.	0.81
If there are children, the man should go to work, and the woman should stay at home and take care of the children.	0.79
As a man, I see it as my task to be able to provide alone for my family financially.	0.63
Mothers are naturally more sensitive than fathers are.	0.54
Fathers can do more with children when the children are older and do not require so much care.	0.54
It is difficult for men to express tender and affectionate feelings towards babies.	0.51
The father should be involved in the upbringing and care of a child as much as the mother.	-0.40
There should be many more women in political and public leadership positions.	-0.37
If there are young children, not only the woman but also the man should work part-time.	-0.35
I feel that I am better able to care for my child/children than my partner believes.	0.32
I feel helpless in the care and upbringing of my child/children.	0.32
<b>meaningful fatherhood beliefs</b>	
It is important for the child's well-being that the father takes a lot of time for the child.	0.74
To invest time and energy in his family is the most important thing a man can do.	0.70
All things considered, fatherhood is a highly rewarding experience.	0.66
I want to be as important to my child/children as my partner is.	0.51
The father should be involved in the upbringing and care of a child as much as the mother.	0.51
Fathers play a central role in children's personality development.	0.51
I enjoy spending time with my child/children.	0.46
As a father, it is my task to support the mother (emotionally) and work with her.	0.39
I can meet the needs of my child/children very well.	0.33
There should be many more women in political and public leadership positions.	0.32
<b>competent fatherhood beliefs</b>	
I feel helpless in the care and upbringing of my child/children.	-0.60

What I intend to do in the care and upbringing of my child/children, I am able to put into practice.	0.56
I can meet the needs of my child/children very well.	0.55
I enjoy spending time with my child/children.	0.40
How I cope with the care and upbringing of my child/children is in my own hands.	0.39
I feel that I am better able to care for my child/children than my partner believes.	-0.35
It is difficult for men to express tender and affectionate feelings towards babies.	-0.33
Fathers can do more with children when the children are older and do not require so much care.	-0.33

Note: eight of the items load onto two factors each (once negatively and once positively).

dependent variables (before standardisation)				
	Min.	Max.	Mean	SD
basic care	1	4.29	2.75	.53
indirect care	1	4	2.11	.51
categorical independent variables				
	%			
father took paid leave	yes:			75.56
	no:			24.44
child in daycare	yes:			60.15
	no:			39.85
other children in the household	yes:			46.24
	no:			53.76
migration background	yes:			28.20
	no:			71.80
father's educational level	Basic secondary school leaving certificate:			8.65
	Intermediate secondary school certificate:			15.79
	A-levels or similar:			10.90
	college or university degree:			64.66
mother's educational level relative to father's	lower level:			20.86
	same level:			62.22
	higher level:			16.92
interval independent variables				
	Min.	Max.	Mean	SD
father's age (years)	21	64	36.49	5.48
dimensions of fatherhood beliefs				
essentialist-traditional	1.55	4.67	2.74	.51
meaningful	2.1	5	4.30	.41
competent	1.5	5	3.13	.42

Table 3. Father Involvement between Paid Leave and Gender Beliefs & Fathering Perceptions

	Basic Care		Indirect Care	
	M1	M2	M1	M2
<b>Family Predictors</b>				
father took paid leave	0.20*	0.12	0.16	0.10
child in daycare	0.24**	0.10	0.25**	0.15
other children in the household	0.10	0.16*	-0.17*	-0.13
<b>Socio-economic Predictors</b>				
father's age (years)	-0.02**	-0.03***	-0.01	-0.01
<i>father's educational level</i> (Ref: basic certificate):				
intermediate secondary school	0.41*	0.25	-0.00	-0.10
A-Levels or similar	0.74**	0.44*	0.27	0.03
college or university degree	0.65**	0.32	0.06	-0.19
<i>mother's educational level relative to father's</i> (ref: lower):				
same level	0.19	0.13	0.27*	0.21*
higher level	0.39*	0.23	0.22	0.08
migration background	-0.26**	-0.17	0.330***	0.41***
<b>Dimensions of Fatherhood Beliefs</b>				
essentialist-traditional		-0.31***		-0.25***
meaningful		0.10*		0.10*
competent		0.18***		0.07
constant	-0.15	0.44	-0.27	0.20
<i>N</i>	532	532	532	532
<b>adjusted R<sup>2</sup></b>	0.07	0.20	0.06	0.13

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$