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Beyond the continuum: A micro-level analysis of the gender equality-fertility nexus in three Nordic countries

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Abstract

The accelerating fertility decline in the most gender equal countries of the world seemingly contradict the central tenet of macro-level theories that predict high fertility in the presence of gender equality. We offer a comprehensive assessment of the individual behavior from which these trends aggregate. We link attitudes towards gender roles and fertility intentions in three Nordic countries. Using recent data (2020-2022) and a multidimensional instrument on gender equality attitudes from the Generations and Gender Programme for Denmark, Finland and Norway on n=15,547 women and men, we identify three attitude profiles of which one is situated beyond the "non-egalitarian-egalitarian continuum". The profiles are clearly associated with fertility intentions for childless individuals. We further provide evidence for two theoretical mechanisms that intervene between gender equality attitudes and fertility intentions. Gender equal societies with a favorable opportunity structure for people to have the children they want, may still face challenges associated with low fertility: Fertility intentions are lowest among egalitarians, i.e., the largest population in these countries. While realizing a satisfying division of household labor with their partner enhances fertility intentions among egalitarians more than in the other groups, they do not necessarily prioritize parenthood as their main life objective.

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Introduction

The Nordic fertility regime has come under scrutiny at the start of the 21st century (Andersson, 2004, Andersson et al., 2009). The Nordic countries (Norway, Denmark, Sweden, Finland, Iceland) have been known for decades for having relatively high and stable cohort fertility rates. This has been largely attributed to the institutional and socio-cultural contexts of these countries, which support gender equality in the labor market and the family (Ellingsæter and Leira, 2006, Ronsen and Skrede, 2010). However, since 2010, the total fertility rates of the Nordic countries have been steadily dropping (Ronsen and Skrede, 2010). It is unlikely that postponed births will be recuperated, given that fertility in both the 30-34 and 35-39 age groups fell considerably more than fertility in the 40+ age groups grew. As a result of these developments, the TFR for the Nordic countries in 2020 converged to the low EU average (i.e., 1.5 children per woman). All Nordic countries experienced a further decline in the TFR in 2022, with Norway (1.41) and Finland (1.32) setting new lows (statistical offices of the Nordic countries).

The trends toward increasing postponement of the first birth, higher levels of lifetime childlessness, and, to a lesser extent, slower parity progression in the world's most gender-equal countries seemingly contradict the central tenet of macro-level theories predicting that more gender-equal societies will have higher fertility. There is growing scholarly interest in cultural explanations for the relationship between gender equality and fertility. Two theoretical frameworks address the gender equality-fertility nexus: the so-called "*fertility-equality reversal theories"* (Kolk, 2019) and the *second demographic transition (SDT) paradigm*.

Fertility-equality reversal theories and the SDT paradigm make macro-level predictions about the relationships between gender equality and fertility across time and across societies. Both use a macro-micro-macro mechanism to explain how individuals adapt to changing social, cultural, and institutional contexts. According to *fertility-equality reversal theories* (McDonald, 2000, Goldscheider et al., 2015, Esping-Andersen and Billari, 2015), fertility behavior is a direct result of the opportunity structure for balancing work and family and achieving a satisfying division of labor between men and women. The basic assumption is that there is a stable and relatively strong preference for having children across all stages of the diffusion of gender equality within societies. The *second demographic transition* (SDT) theory (Lesthaeghe, 2020, Lesthaeghe and van de Kaa, 1986, Lesthaeghe, 2010) postulates that the

spread of greater gender equality within countries may result in a decrease in the desire to have children. A shift in values toward a greater emphasis on self-fulfillment and individualism would mean that even in contexts with very robust work-family reconciliation policies, family formation may become just one potential life goal that competes with many other potential life goals, such as having a fulfilling partner relationship, achieving education and employment goals, and having plenty of leisure time.

Both macro-theoretical frameworks focus on the transformation of fertility trends driven by the societal diffusion of gender equality over time and space. In this study, we delve deeper into the mechanisms of how gender equality and fertility are linked at a given stage in the societal diffusion of gender equality. First, we focus on the individual-level behaviors from which these trends are aggregated, and offer a systematic analysis of the micro-level mechanisms through which individual gender equality attitudes and fertility intentions are related. In the Nordic countries under investigation (Denmark, Finland, Norway), significant progress has been made toward the goal of achieving gender equality. Thus, these countries represent a homogenous study context for which it may be expected that the juxtapositions of the different micro-level mechanisms linking gender equality attitudes and fertility intentions are particularly salient. This is because people anticipate whether their attitudes are norm-compliant or norm-deviant, which affects whether their attitudes are translated into behaviors. Regardless of what they actually do, Scandinavians with egalitarian attitudes have a reasonable opportunity structure for putting gender-egalitarian work and care arrangements into practice. Therefore, the desired and the lived experiences of Scandinavians are more likely to converge than would have been the case in the same setting at a previous point in time, or in a contemporary society with lower levels of gender equality.

We thus formulate the following first research question as follows:

RQ1: How are individual gender equality attitudes associated with fertility intentions and how do these associations vary by (a) gender and (b) parenthood status?

We also consider the theoretical micro-level mechanisms invoked by fertility-equality reversal theories on the one hand, and the SDT paradigm on the other. We therefore ask:

RQ2a: Does the extent to which individuals are achieving a satisfying division of labor explain why and how gender equality attitudes and fertility intentions are associated at the individual level?

RQ2b: Does the extent to which individuals see parenthood as a life goal explain why and how gender equality attitudes and fertility intentions are associated at the individual level?

We use recent survey data from the 2020-2022 data collection of the Generations and Gender Surveys (GGS II) in Denmark, Finland, and Norway. We select n=14,744 women and men aged 18 to 45, of whom 7,212 are childless and 7,532 have at least one biological child at the time of the interview. Among the unique features of the data are that they include rich measures of individuals' gender equality attitudes that reflect the public and the private roles of both women and men, and therefore address multiple dimensions of gender equality.

Our study offers various theoretical and empirical insights into the fertility decline in the Nordic countries, as well as the relationship between gender equality and fertility more generally. First, this study helps us to better understand the well-documented change in fertility rates in the Nordic countries by focusing on the role of attitudes regarding fertility. In order to shed light on future fertility trends at the population (macro) level, we examine the relationship between gender equality attitudes and fertility at the individual (micro) level (see Esping-Andersen and Billari, 2015).

Second, we analytically acknowledge that the progress in gender equality attitudes toward greater equality is not uniform or linear across whole populations or across all life domains. Abandoning the measurement of gender equality attitudes along a continuum with two end points – gender-non-egalitarian and gender-egalitarian – we instead seek to capture these attitudes in their multidimensionality. We gather *profiles* of gender equality attitudes that include combinations of the roles assigned to women and men in the public and private spheres, and link them to intentions to have a (an additional) child. By doing so, we move beyond the non-egalitarian-egalitarian continuum that most fertility research has relied upon to date (Puur et al., 2008, Westoff and Higgins, 2009, Miettinen et al., 2011, Billari et al., 2009).

Third, we investigate how men's as well as women's internalized social norms regarding the equality of women and men influence their plans to have (more) children. This is important for evaluating the predictions of the gender equality reversal theories, which address fertility decisions in terms of work-family (in)compatibility for women, but less so for men.

Finally, we address population heterogeneity, making an analytical distinction between childless individuals and parents. This is important for examining the individual-level predictions implied by the SDT framework about the emergence of conflicting life goals and

shifting patterns of preferences for having children, which might influence childless individuals more than parents, who have already made the decision to have children.

Theoretical background

Macro-level theories addressing the gender equality-fertility nexus

In high-income countries, the degree of gender equality is regarded as a critical driver of fertility (Esping-Andersen and Billari, 2015, Goldscheider et al., 2015, McDonald, 2000). Different areas of fertility research have been influenced by two strands of macro- level associations between gender equality and fertility.

Fertility-equality reversal theories contend that the degree to which the normative, institutional, and policy contexts assign public and private roles to men, women, or both equally shape men's and women's opportunity structures for experiencing role compatibility or role conflict by having (many) children. According to the gender equity theory (McDonald, 2000), these gendered opportunity costs of fertility are incurred when an increase in women's access to and the acceptance of women serving in public roles on par with those typically occupied by men (i.e., pursuing higher education, participating in the labor force, and holding leadership positions) coincides with persisting gender inequality in private roles (i.e., housework and childcare) for which women are typically perceived as being more responsible.

The link between opportunity structures and fertility described by the gender equity theory is essentially supported by the gender revolution theory, although the latter places more focus on how fertility rates react to the combined interactions of individuals (couples) with their environment. According to Goldscheider et al. (2015), gender equality in a society is achieved in two stages. During the first stage, increasing gender equity in the public sphere is driven by women's behaviors, like women entering higher education and the labor market in larger numbers, and more women entering male-dominated occupations than men are entering female-dominated occupations (Ridgeway and Correll, 2004, Ridgeway, 2009, Ridgeway, 2011). However, these changes coincide with persistent gender-essentialist norms about femininity, masculinity, and parenthood that discourage men from engaging in the private sphere. The second stage of the gender revolution is completed when men and women are equally expected and able to take on private roles. Although it has been observed that the Nordic countries have made the most progress in the gender revolution, they still have not achieved full gender equality (Lappegård et al., 2021).

To explain new demographic behaviors in the areas of partnerships and families, the second demographic transition (SDT) paradigm emerged (Lesthaeghe and van de Kaa, 1986). According to the SDT, gender equality has been diffused alongside a broader shift in values that has made family formation a life goal that increasingly competes with other life goals that are incompatible with the loss of autonomy, opportunities for self-realization, and individualism that childbearing implies, even in societal settings that strongly support work-family reconciliation. While fertility-equality reversal theories are based on the primary assumption that preferences for having children are relatively stable over time, and that the realization of fertility desires is a function of women's (and men's) opportunity structures for having the number children they want, the SDT asserts that family formation preferences are changing. The Nordic countries are considered the forerunners from which changes in demographic patterns, such as later marriage, lower fertility, and higher levels of unmarried cohabitation and childbearing outside of marriage, spread to other European countries in decades following the 1960s. Changes in values and attitudes were considered the drivers of changes in family and fertility patterns in postindustrial societies (Batool and Morgan, 2017, Lesthaeghe, 2010). In line with fertility-equality reversal theories, the SDT argues that progress toward achieving gender equality through women having greater access to higher education and the labor force makes women less dependent on men for financial support and social status, and makes having identities other than those of the devoted wife and mother more accessible to women, which, in turn, leads to more egalitarian relationships and the reduction of gendered roles within the family. However, changes in people's inclinations to uphold "traditional" family values, including the decision about whether to have (many) children, serves as the key argument linking value changes to new fertility behaviors. As ideational changes that emphasize individualism and self-actualization continue to diffuse, the SDT predicts that people will choose "less family" (van de Kaa, 2001).

While both fertility-equality reversal theories and the SDT paradigm link gender equality and fertility at the population level, they rely on different, even contradictory assumptions about the relationship between attitudes toward gender equality and fertility at the individual level. In our analysis of the dominant mechanisms of the two macro theories, we argue that people's attitudes toward gender equality are associated with their perceptions of the opportunity costs of childbearing through the (anticipated) household division of labor on the one hand, and the value they place on having children in general on the other.

Capturing the mechanisms of the gender equality-fertility nexus at the micro level

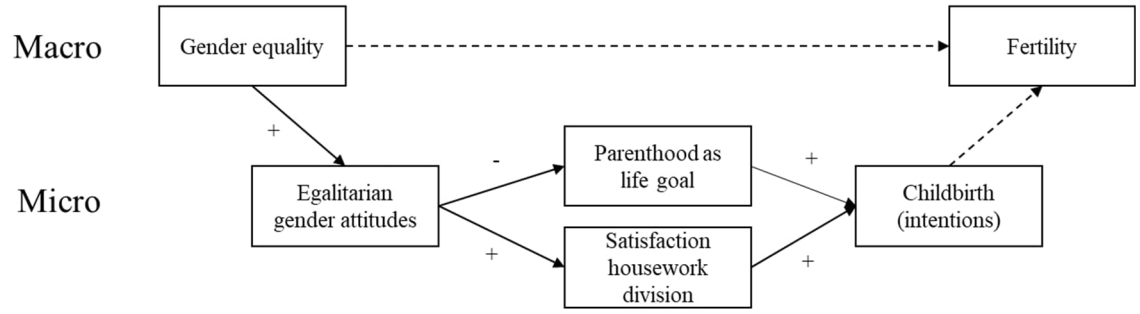
The gender equality-fertility nexus is still a subject of theoretical debate and empirical uncertainty (Raybould and Sear, 2021). The relevant literature reports conflicting findings regarding the relationship between gender equality attitudes and fertility intentions. It has, for example, been shown that in a number of European countries, attitudes favoring gender equality are positively correlated with women's – but not men's – intentions to have a first child (Philipov, 2009). According to Philipov (2008) and Torr and Short (2004), gender equality attitudes do not correlate with the chances of having a higher-order birth. Westoff and Higgens (2009), using a different measure of gender ideology, observed a negative association between gender ideology and fertility intentions; while Puur et al. (2008), studying just men, found a positive association. When Miettinen et al. (2011) examined the case of Finland, they discovered that fertility intentions were lower among both the most non-egalitarian and the most egalitarian men, and that there was more ambiguity in these correlations among women. In a study of European and Baltic countries, Lappegård et al. (2021) found that some of the different dimensions of attitudes toward gender equality (public sphere, maternal employment, and the father's role in the family) were associated with more variation in women's than in men's fertility intentions, with fertility intentions generally being lower among women with more egalitarian gender attitudes.

These conflicting findings can be partially explained by the difficulties associated with extrapolating findings from one study to other populations, contexts, and stages of the cultural and demographic transition processes. First, given that people may anticipate the extent of norm deviation vs. norm compliance resulting from having certain gender equality attitudes, the degree to which their attitudes are linked to their behaviors may depend on the extent to which their attitudes are aligned with the institutional and cultural contexts of the country where they reside, as well as the specific level of diffusion of gender equality and the fertility rate in that country. Second, whether a person is female rather than male, or childless rather than a parent, may alter the meaning of the individual's particular gender equality attitudes. As levels of gender equality are relatively high in Scandinavia, women and men in these countries who have egalitarian gender attitudes have a reasonable opportunity structure for aligning their desired reality with their lived reality. For this reason, we have chosen to study these associations not only stratified by gender and parenthood status, but also in a homogeneous context characterized by relatively high levels of gender equality and of advancement based on demographic indicators of the second demographic transition.

Another explanation for why prior research has been unable to provide a comprehensive picture is the lack of a clear conceptualization and operationalization of gender equality attitudes. One problem is that different studies use different sets and types of questions addressing various aspects of gender equality. Another problem is the tendency to frame gender roles along a one-dimensional continuum with "traditional" and "egalitarian" endpoints (Davis and Greenstein, 2009). This conceptualization disregards the possibility that individuals may hold ambivalent or conflicting views about different aspects of gender equality (i.e., multidimensionality in gender attitudes). Moreover, when developing theoretical arguments about how fertility outcomes are related to gender equality attitudes, what it means for individuals to have attitudes that lie halfway between the non-egalitarian and egalitarian endpoints of a one-dimensional continuum remains unclear. Thus, we build upon a body of work that has emerged in the past 10 years that uses a multidimensional conceptualization of gender attitudes (Brinton and Lee, 2016, Knight and Brinton, 2017, Begall et al., 2023, Grunow et al., 2018, Scarborough et al., 2019, Barth and Trübner, 2018, Kleinschrot et al., 2023, Sievers and Warner, 2022, van Damme and Pavlopoulos, 2022). Our approach captures respondents' attitudes in profiles, rather than averaging gender equality attitude components into scales. While the extent to which the relationship between aggregated gender attitude profiles and contextual conditions explains TFR variation has been examined in macro-level analyses of fertility using this multidimensional conceptualization (Brinton and Lee, 2016, Han and Brinton, 2022), micro-level applications have not been reported in the literature.

The findings of these studies demonstrate that a substantial group of people in modern, post-industrialized countries exhibit some degree of ambivalence toward gender relations, even though sizeable shares of the population (30-40%) hold egalitarian views on gender relations (a so-called unidimensional view). Combining traditional or gender-essentialist beliefs on gender equality in the family with egalitarian views on gender equality in public roles (women's employment and access to power) is a common example of an ambivalent pattern that reflects the notion of the stalled gender revolution (Begall et al., 2023). Another general result reported in this body of research is that share of respondents who hold non-egalitarian or traditional views on all aspects of gender equality is small (5-10%). We formulate assumptions regarding the association between gender equality attitudes and fertility intentions for egalitarian, non-egalitarian, and ambivalent profiles based on these prior studies, but note that the inductive character of the analytical techniques means that we may find additional or different profiles.

Figure 1. Conceptual model of macro-micro mechanisms of the gender equality-fertility relationship derived from macro frameworks



Hypotheses

How are various gender equality attitudes at the intersection of public and private gender roles connected to fertility intentions? Non-gender-egalitarian attitudes imply giving men more credit and authority in public roles while giving women more credit and authority in family responsibilities. Men who share these ideas concur that childrearing belongs to the sphere of women, while women who subscribe to the idea of gender essentialism view parenting as a vital element of their identity. Given that non-egalitarianism involves the upholding of distinct gendered spheres for men and women, it may also imply a strong orientation toward viewing parenthood as an important life goal. An adherence to gender-separate spheres implies the absence of work-life conflicts or double burdens for women. Therefore, both women and men who hold such beliefs may have relatively modest opportunity costs as a result of having children. Intentions to have a(nother) child are expected to be highest for both women and men who hold non-egalitarian gender equality attitudes relative to the other gender equality profiles *(Hypothesis 1)*.

People who believe that women and men are equally capable of performing public and family roles have egalitarian attitudes about gender equality, and are thus situated at the other end of the spectrum. According to the theory of gender-equality reversal, people who hold these views are more likely to encounter structural obstacles to achieving the levels of gender equality they envision for themselves. Therefore, having children may come with large opportunity costs for both women and men who hold these beliefs, which makes having a satisfying division of labor a particularly important pre-requisite for childbirth in this group. According to the SDT, which

places a strong focus on greater self-actualization and individualism, women and men holding egalitarian gender attitudes may be more inclined to view parenthood as one of many life goals that compete with one another, or that may even be mutually exclusive. In contrast to gender-equality reversal theories that take fertility preferences as a given, the SDT predicts that low fertility intentions have their roots in preferences for family formation being the lowest in this group. As a result, we expect that both women and men who hold egalitarian views on gender equality are less likely to intend to have a(nother) child than their counterparts with non-egalitarian gender equality attitude profiles *(Hypothesis 2)*.

Holding ambiguous views on gender equality in keeping with the idea of the "stalled revolution" implies that the importance of or the ability to perform roles in the public sphere is considered equal for men and women, while the importance of or the ability to perform family roles is considered higher for women. The implications of holding ambivalent gender equality attitudes for fertility intentions are not immediately apparent. There are two possible associations. On the one hand, ambiguous gender equality attitudes have their roots in "choice feminism," which is associated with the belief that women can have it all: i.e., that women can have a fulfilling life in the public realm (the successful worker, the female leader) while also taking on the main responsibility for their family (the devoted mother). No matter how realistic such beliefs are, individuals who hold these gender equality attitudes may have fertility intentions similar to those of individuals with non-egalitarian gender equality attitudes *(Hypothesis 3a)*. On the other hand, having ambiguous attitudes about gender equality may be associated with the belief or experience that women cannot have it all. The perception that taking on public roles is incompatible with being a devoted mother points to a perceived or predicted conflict between women's roles in the family and in the public sphere. For this reason, the fertility intentions of respondents with ambivalent gender equality attitudes may be more comparable to those of egalitarian respondents *(Hypothesis 3b)*.

Accounting for theoretical mechanisms

We intend to capture the expectation, put forward by the SDT paradigm, that in countries at advanced stages of the SDT, a lower orientation toward parenthood as a life goal may emerge as identities other than being a parent become more accessible (see Figure 1). We assume that people with egalitarian gender beliefs are more likely to have a lower orientation toward parenthood as a life goal, which may help to explain the adverse relationship between these attitudes and fertility intentions. For people with non-egalitarian attitudes about gender equality, the opposite may be true (see Hypothesis 3a).

In order to capture the expectation advanced by *fertility-equality reversal theories* that it is through the combination of achieving a satisfying division of labor in private life and women's full participation in public roles that the recuperation of fertility in high-equality contexts is achieved, we account for the intervening effect of the level of satisfaction with the household division of labor on the gender equality attitude-fertility relationship (see Figure 1). Instead of focusing on egalitarian divisions, we believe that the satisfaction with complementary roles in non-gender-egalitarian couples may also explain their greater desire to have children. By contrast, the potential double burden implied by having ambivalent attitudes toward gender equality may be manifested through lower levels of satisfaction with the division of housework, which could lead to lower fertility intentions (see Hypothesis 3b).

Considering heterogeneity by gender and parental status

Women's and men's intentions to have (more) children may be impacted differently by gender equality. When women prioritize and take on family roles while also maintaining gender-egalitarian attitudes toward taking on public roles, they are more likely to experience the opportunity costs of having children. Women's work-care schedules are much more variable than men's, who typically maintain full-time employment throughout all life stages (Bünning and Pollmann-Schult, 2015). As a result, women's attitudes toward gender equality in public and private roles may have greater impact on their fertility intentions than those of men.

Additionally, gender equality may have different effects on childless individuals' and parents' intentions to have (more) children. According to the SDT, this could be in part because as gender equality becomes more prevalent, both women and men acquire preferences for life goals and lifestyles that conflict with family formation. The dampening effect of stronger gender egalitarianism on fertility intentions may be particularly apparent in the group of people who do not yet have children. Therefore, we expect that gender equality attitudes have bigger effects on the fertility intentions of childless women and men than on those of parents. The stratification based on parental status also reveals how beliefs about gender equality influence various drivers of fertility decline to the same or to a different extent. This is a valuable observation, given that childlessness is contributing more than parity progression to the decline in fertility in the Nordic countries.

Data and methods

Sample

We use data from the 2020-2022 data collection of the second round of the Generations and Gender Survey Programme (GGPII) from Denmark, Finland, and Norway to test our theoretical expectations. In our analytical sample, we follow the restrictions imposed by our dependent variable of fertility intentions. These intentions are recorded among women aged 18 to 50 and among men with a female partner in that age group who are fertile and whose partner (if any) is fertile. After accounting for missing values on the dependent variable by listwise deletion and the age restriction on the fertility intentions measure, our analytical sample consists of 15,131 respondents, which is further reduced to 14,744 after accounting for cases with missing values on all relevant variables.

Measurements

The question "Do you intend to have a/another child during the next three years?" serves as the basis for the dependent variable, fertility intentions. Responses are scored on a five-point scale with a separate category for respondents currently expecting a child. The original answer categories are recoded into a dichotomous measure, with *probably yes*, *definitely yes*, and *currently expecting a child* coded as one; and *definitely not*, *probably not*, and *unsure* coded as zero.

The main predictors are the gender attitude profiles obtained through response patterns to four statements that ask respondents about the extent to they consider public and private roles to be gendered[1]:

1. *On the whole, who would make better political leaders, men or women?*
2. *For whom is having a job more important, men or women?*
3. *For whom is looking after the home and children more important, men or women?*
4. *Who is better at caring for small children, men or women?*

The response categories are *men definitely*, *men slightly*, *both sexes equally*, *women slightly*, and *women definitely*. The responses are recoded to dichotomous measures, with one denoting an egalitarian or gender-atypical attitude. This indicates that respondents who allocate public

[1] A fifth statement included in the data collection, "*For whom is a university education more important, men or women?"*, was not considered due to a lack of variance (i.e., in the countries we studied, virtually everyone responded "both sexes equally").

roles (political leaders and jobs) to women and men equally, or who rate the importance of or the ability to perform these roles as higher for women, are coded as one; while respondents who rate the importance of or the ability to perform these roles as higher for men are coded as zero. The coding is reversed for the two items referring to the family domain. The decision to merge the atypical and egalitarian answers is based on the small number of gender-atypical responses (4% on the statement regarding political leadership, <1% for the other three statements), which impedes the analysis of gender-atypical attitudes as a separate category.

We operationalize the *importance of parenthood as a life goal* using the statement "A woman/man needs children to be fulfilled," which is addressed to respondents in reference to their self-reported gender. Responses are rated on a Likert scale of one to five, with five being the strongest level of agreement. The question "How satisfied are you with the division of household tasks between you and your partner?" is used to capture potential conflicts in the reconciliation of public and private roles. On a scale from zero (*not satisfied at all)* to 10 (*very satisfied)*, respondents rate how satisfied they are with the division of household work between them and their partner. In order to include respondents without a partner in the analyses addressing this mechanism, we assign them the sample average of satisfaction (7.8), and include a dummy variable indicating partnership status in all the analyses. To facilitate interpretation, both variables are rescaled to zero to one.

We include a number of relevant socio-demographic control variables when modelling fertility intentions, including the respondent's gender, age at interview (in years), number of children, partnership status (single, cohabiting, or married), migration status (first-generation migrant versus all others), highest educational level as measured by the ISCED 2011 (eight categories), employment status (differentiating between not employed, part-time (<36 hour per week) work, and full-time (36+ hours per week) work), and country of residence (Denmark, Finland, Norway). See Table 1 for descriptive statistics.

Analytical approach

In a first step, we identify attitude profiles based on the four statements regarding the roles of women and men in the public and private spheres using latent class analysis (LCA). Based on the responses given to a set of categorical indicators, LCA classifies cases into profiles (i.e., "classes", Lazarsfeld et al., 1968). We estimate models with up to five classes without additional covariates. Based on the lowest (adjusted) Bayesian information criterion (BIC) value, a three-class model is chosen as the preferred model (see Table A1 in the appendix for

model fit statistics, Nylund et al., 2007). The bivariate residuals are examined to detect violations of the local independence assumption, but no significant values are discovered.

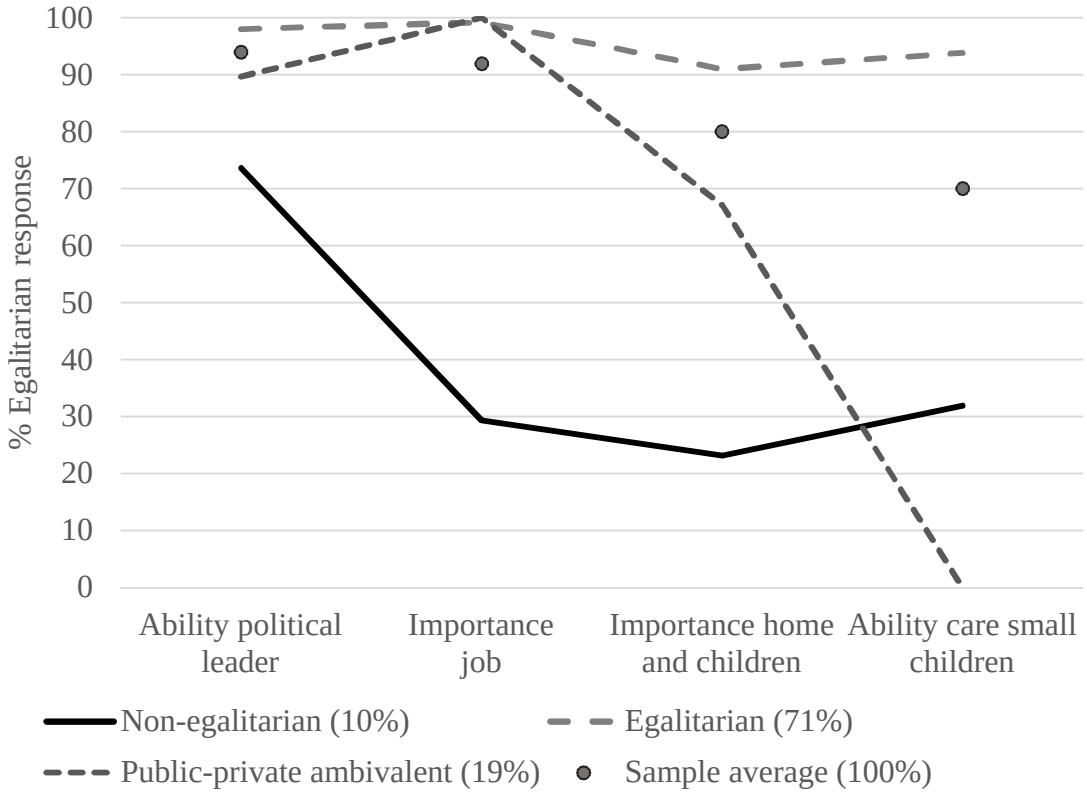
In a subsequent step, a series of models is estimated to examine class differences in fertility intentions, the importance of parenthood as a life goal, and satisfaction with the division of household labor using the Bolck–Croon–Hagenaars (BCH) method (Bolck et al., 2017). The three-step BCH method is currently recommended for estimating the effects of latent class membership on distal outcomes, because it avoids shifts in the latent class structure (which can occur in a one-step approach), and accounts for measurement uncertainty in the latent class assignment by using weights that reflect the measurement error (Nylund-Gibson et al., 2019). We employ the manual-BCH approach in Mplus 7.31 (Muthén and Muthén, 2012) following Asparouhov and Muthén's (2019) procedure. Indirect effects are calculated following the approach outlined by McLarnon and O'Neill (2018) for assessing mediation effects in situations where latent class membership might interact with the mediating variable to influence the distal outcome because such an interaction might bias the indirect effects if calculated in the traditional way. Missing values are accounted for using full information maximum likelihood, assuming missingness at random. In all analyses, data are weighted to equal sample sizes in the three countries.

Results

The preferred solution of the latent class analysis identifies three profiles of attitudes toward gender equality, consisting of two profiles corresponding to the endpoints of the non-egalitarian-egalitarian continuum and one multidimensional profile. Figure 2 shows the conditional probabilities of egalitarian (or gender-atypical) responses in each class for the four statements that the profiles are comprised of, and includes the sample average for comparison (denoted by gray dots). The first profile, which is also by far the largest (accounting for 71% of the sample), is labelled *egalitarian,* and is characterized by a response pattern in which the importance of or the ability to perform both public roles and private roles is rated as equal for women and men. As the long-dashed line in Figure 2 shows, the probability of an egalitarian response is close to 100% across all four items, and is also consistently higher than it is for the other two profiles and the sample average. The second profile (10% of the sample), labeled *non-egalitarian,* is characterized by a response pattern in which the importance of or the ability to perform public roles is considered higher for men than for women, and the importance of or the ability to perform family roles is rated as higher for women than for men. As the solid line in Figure 2 shows, the probability of an egalitarian response to any of the items is lowest for

this profile, and is consistently below the sample average for all items. The third profile (19% of the sample), labeled *public-private ambivalent*, is characterized by a response pattern in which the importance of or the ability to perform public roles is considered equal for men and women, while the importance of or the ability to perform family roles – particularly the ability to care for young children – is rated as higher women than for men, as illustrated by the short-dashed line in Figure 2. The class pattern is in line with our expectations and the results from previous studies.

Figure 2. Conditional probability of egalitarian or gender-atypical responses to gender attitude items per class



Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway; N=14,744.

Table 1. Descriptive statistics of all variables in the analysis for the full sample and by gender equality attitude class

	Full Sample	Egalitarian (71%)	Non-Egalitarian (10%)	Public-Private Ambivalent (19%)
	% / Mean (SD)	*% / Mean (SD)*	*% / Mean (SD)*	*% / Mean (SD)*
Intention to have a child within 3 years (probably) yes (0/1)	22%	22%	25%	19%
Importance of parenthood as life goal (0-1)	0.20 (0.24)	0.17 (0.23)	0.31 (0.28)	0.25 (0.24)
Satisfaction with housework division (0-1)	0.78 (0.16)	0.79 (0.16)	0.77 (0.17)	0.78 (0.16)
Female (0/1)	58%	65%	38%	43%
Age at interview (18-59)	35.58 (10.03)	35.45 (10.00)	35.36 (9.86)	36.31 (10.01)
Partnership status				
No partner (0/1)	36%	36%	39%	34%
Cohabiting (0/1)	28%	28%	27%	26%
Married (0/1)	37%	36%	33%	40%
Parity				
No child (0/1)	50%	50%	53%	44%
One child (0/1)	13%	13%	14%	14%
Two children (0/1)	25%	25%	18%	28%
Three children or more	12%	12%	15%	14%
Education (ISCED) (0-8)	4.96 (1.86)	5.06 (1.84)	4.68 (1.94)	4.77 (1.85)
Employment status				
Not employed (0/1)	21%	21%	22%	21%
Part-time (0/1)	20%	20%	20%	18%
Full-time (0/1)	59%	59%	58%	61%
Not born in country (ref native born) (0/1)	10%	9%	10%	12%
Country				
NO (0/1)	33%	31%	42%	39%
DK (0/1)	33%	37%	20%	27%
FI (0/1)	34%	32%	38%	34%
Observations	14,744	10,408	1,542	2,794

Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway; Note: Country-equilibrated weights applied.

We highlight the socio-demographic composition of the entire sample and by gender equality attitude classes before moving on to the multivariate analyses (Table 1). Around one-quarter of the sample intends to have a (another) child within the next three years. The differences between gender equality classes appear to be relatively small, with non-egalitarian individuals

having somewhat higher fertility intentions, and those with a public-private ambivalent attitude having slightly lower fertility intentions. It should be noted that these bivariate differences do not consider any distinctions based on relevant factors such as parity, partnership status, education, or gender.

The *importance of parenthood as a life goal* differs substantively between gender equality attitude classes. Compared to the sample mean of 0.20 [0;1], respondents classified as egalitarian have lower scores (0.17) than respondents with a non-egalitarian and a public-private ambivalent attitude profile (0.31 and 0.25, respectively). There is virtually no variation across gender equality attitude classes with regard to the *satisfaction with the division of housework*, but the high average value of 0.78 indicates that the respondents are generally satisfied with the division of housework.

The largest compositional differences between classes on the socio-demographic covariates are observed with regard to gender, education, parental status, and parity. Women are over-represented in the egalitarian class and under-represented in the non-egalitarian and the public-private ambivalent classes. Members of the non-egalitarian and public-private ambivalent class are lower educated than the egalitarian respondents. About half of the sample is childless, but this proportion is lower (44%) among the respondents in the public-private ambivalent class and is somewhat higher (53%) among the non-egalitarian respondents. Among the respondents with children, about one-quarter have two children, but the share is smaller among the non-egalitarian respondents (18%) and is larger (28%) among the public-private ambivalent respondents. At parity one and parity three (or more), the differences between the classes are small, but the non-egalitarian respondents are somewhat more likely to have three or more children. The differences in partnership status follow a pattern similar to that for parity, with the non-egalitarian respondents being somewhat more likely to be single and less likely to be married, and the public-private ambivalent respondents being somewhat less likely to be single and more likely to be married, compared to the egalitarian class and the sample average.

Multivariate results

The second step of our analyses comprises the empirical test of our theoretical expectations about the association between gender equality attitude profiles and fertility intentions. In a first set of models, we compare the fertility intentions between the gender equality attitude classes adjusted for the socio-demographic covariates. The BCH method for estimating the effects of latent class membership on distal outcomes yields class-specific means (when the outcome is not controlled for any covariates) or class-specific intercepts (when the outcome is controlled

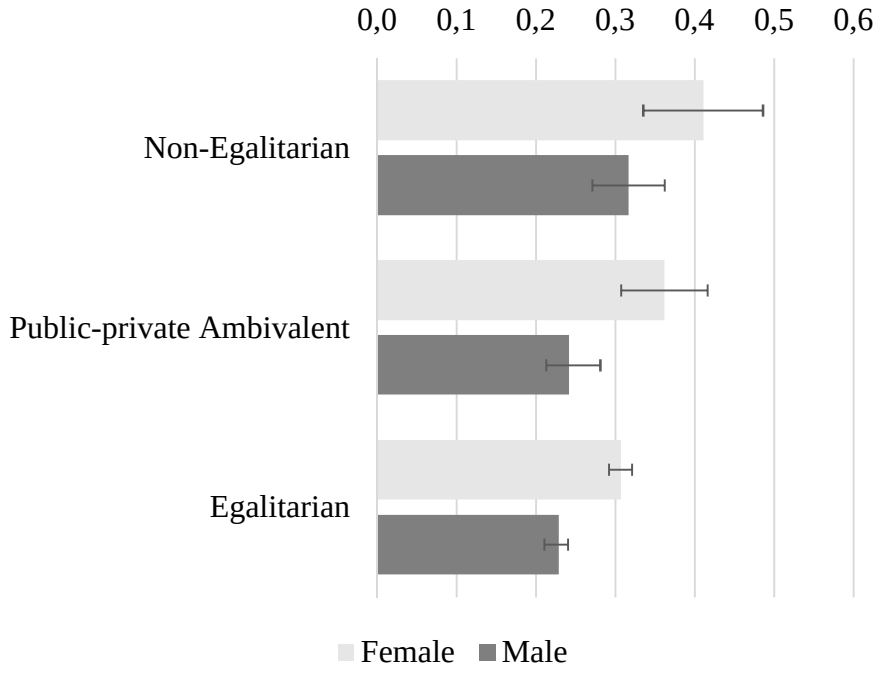
for additional covariates). The equality of means/intercepts between classes is assessed with an overall omnibus test as well as pairwise comparisons (see Table 2). Because the decision of whether to become a parent is guided by different considerations than the decision to have an additional child, we stratify all analyses by parity (zero vs 1+). In order to assess whether our expectation of heterogenous effects across gender categories is confirmed, we examine in all models whether the overall gender differences in fertility intentions across classes are significant using a Wald test.

Table 2 reports how fertility intentions differ between classes. In our first hypothesis, we predicted that the respondents with a non-egalitarian gender attitude profile would be more likely to plan to have children than those with an egalitarian profile. Two competing hypotheses had been developed about the ambivalent profile. Equality tests of class-specific intercepts show significant differences between classes at parity zero, controlling for the effects of socio-demographic control variables, which are partially in line with our expectations. Among the childless respondents, the likelihood of intending to have a first child is significantly higher for those with the non-egalitarian gender attitude profile (37% have positive intentions) than for those in the public-private ambivalent class (30% have positive intentions), and those with an egalitarian profile are the least likely to intend to become a parent within three years (27%). Among the respondents who already have one or more children, fertility intentions are substantially lower: roughly 14% intend to have another child within three years, and this share does not differ between gender equality attitude classes. Thus, for the respondents without children, the findings support the first and the second hypothesis. With regard to the (competing) hypotheses regarding public-private ambivalent attitudes, the results show that the fertility intentions of the childless respondents in this class are situated in between those of their counterparts with egalitarian and non-egalitarian attitudes. Thus, no clear-cut conclusion can be drawn about the dominant theoretical mechanism at play.

The differences in fertility intentions between classes do not vary by gender. However, as shown in Figure 3, among childless respondents, men tend to exhibit lower fertility intentions than women in all classes (respondents with children not shown).

In conclusion, we find that the gender equality attitude profiles are substantially linked with fertility intentions in ways that are largely consistent with our theoretical predictions. For the respondents without children, these associations are statistically supported. For the parents, all associations are statistically insignificant.

Figure 3. Fertility intentions (proportion intending childbirth) among childless respondents across gender equality attitude classes by gender (error bars indicate 95% confidence intervals)



Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway; N=7,068.

Note: Fertility intentions controlled for gender, age, partnership status, education, employment status, migration background, presence and number of children, and country of residence. Intercept differences between classes refer to all control variables set at their (parity-specific) grand mean.

Table 2. Differences in fertility intentions, parenthood as life goal, and satisfaction with housework by gender attitude class membership probability stratified by parity

		Non-egalitarian	Public-private ambivalent	Egalitarian	Global Wald test		Non-egalitarian vs. Public-private-ambivalent		Non-egalitarian vs. Egalitarian		Public-private ambivalent vs Egalitarian		Gender differences (Global Wald test)
		M	***M***	***M***	**χ2 (df)**		***z***		***z***		***z***		**χ2 (df)**
Parity 0	Fertility intentions[ab]	0.37	0.30	0.27	21.20 (2)	***	2.42	*	4.33	***	1.87	†	0.66 (2)
	Parenthood as life goal	0.32	0.24	0.15	226.94 (2)	***	4.60	***	11.83	***	8.81	***	8.17 (2)*
	Satisfaction household division	0.78	0.79	0.79	1.36 (2)		-0.66		-1.13		-0.35		5.81 (2)†
	Fertility intentions regressed on[a]	***B (SE)***	***B (SE)***	***B (SE)***									
	Parenthood as life goal (slope)	0.29 (0.07)	0.35 (0.06)	0.30 (0.03)	0.64 (2)		-0.67		-0.14		0.78		2.30 (2)
	Satisfaction household division (slope)	-0.35 (0.18)	0.04 (0.15)	0.17 (0.05)	8.01 (2)	*	-1.58		-2.73	**	-0.78		7.99 (2)*
		M	***M***	***M***	**χ2 (df)**		***z***		***z***		***z***		**χ2 (df)**
Parity 1+	Fertility intentions[ab]	0.14	0.13	0.13	0.20 (2)		0.31		0.44		0.12		0.05 (2)
	Parenthood as life goal	0.33	0.29	0.23	93.46 (2)	***	2.61	*	7.21	***	6.55	***	5.78 (2)
	Satisfaction household division	0.76	0.78	0.79	18.32 (2)	***	-1.62		-3.50	***	-2.52	*	23.22 (2) ***
	Fertility intentions regressed on[a]	***B (SE)***	***B (SE)***	***B (SE)***									
	Parenthood as life goal (slope)	0.06 (0.06)	-0.03 (0.04)	0.04 (0.02)	2.33 (2)		1.15		0.29		-1.49		3.45 (2)
	Satisfaction household division (slope)	0.02 (0.08)	-0.01 (0.05)	0.07 (0.03)	2.05 (2)		0.23		-0.69		-1.28		1.09 (2)

Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway; N=14,474

Note † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

[a] Fertility intentions controlled for gender, age, partnership status, education, employment status, migration background, presence and number of children, country of residence. See Table A2 for estimates.

[b] Intercept differences between classes refer to all control variables set at their (parity-specific) grand mean.

Country-equilibrated weights applied.

After determining the general pattern of the associations between gender equality attitude profiles and fertility, we estimate a series of models in which we also include *parenthood as a life goal* and *satisfaction with household work* as predictors of fertility intentions. We assess the differences between gender equality attitude classes in the mean, as well as in their effect on fertility intentions (slope), with significant slope differences between classes indicating an interaction by class membership. The results speak to the theorized mechanisms between gender equality attitudes and fertility intentions.

As shown in Table 2, the respondents in the non-egalitarian attitude class attach the highest importance to parenthood, followed by those in the public-private ambivalent class. The egalitarian respondents are least likely to consider parenthood an important life goal. These differences show the same pattern in childless respondents and parents, and are all statistically significant. Notably, the mean values in the non-egalitarian class and the ambivalent class do not differ by parity, while the egalitarian parents rate the importance of parenthood higher than their childless counterparts (0.13 vs 0.23). With regard to the level of satisfaction with the division of housework, the mean differences across classes are much smaller and are only significant among parents: the egalitarian parents are significantly more satisfied with their division of labor than the other two classes, but the actual difference is rather small (0.79 vs 0.75 and 0.77, respectively). We also assess to what extent the class-specific means differ by gender.

A closer examination of the two significant gender differences reveals that while the differences between classes in the importance of parenthood are larger for men than for women because men score higher on this measure, particularly those in the non-egalitarian class, the general pattern is comparable. With regard to the division of housework among parents, the gender differences are most pronounced in the public-private ambivalent class, with women being relatively less satisfied than men.

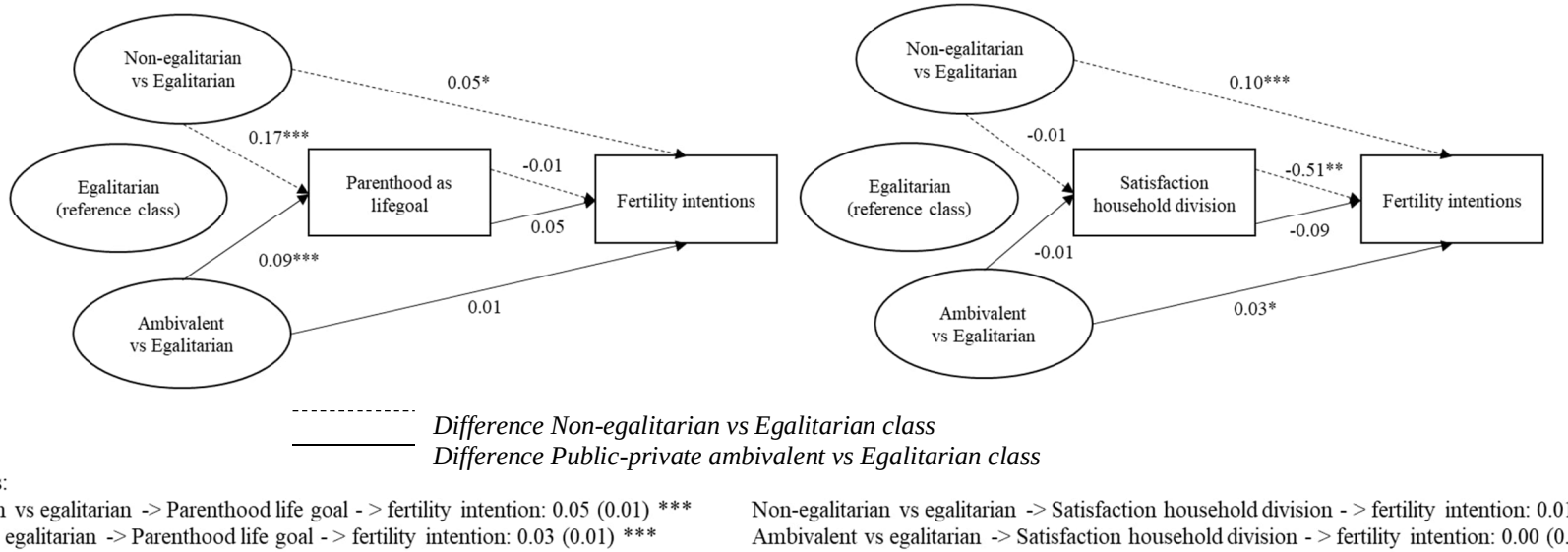
Table 2 also presents the class-specific estimates of the effects of parenthood as a life goal and satisfaction with housework on fertility intentions (slopes). These results show that among the childless respondents, placing a higher importance on parenthood as a life goal significantly and positively predicts higher fertility intentions to the same degree in all three classes. Combined with the mean differences across classes, this implies that we can view the importance of parenthood as an intervening factor, and thus as a partial explanation for the association between gender equality and fertility intentions in childless respondents. This is confirmed in Figure 4, which shows the differences between classes in these relationships with

reference to the egalitarian class. The difference in fertility intentions between the non-egalitarian class and the egalitarian class is reduced from 10 percentage points to six percentage points, and the three-percentage-point difference between the ambivalent class and the egalitarian class is fully explained.

With regard to satisfaction with the division of housework, the results show differential associations between classes in the effect on fertility intentions among the childless respondents. In the non-egalitarian class, this effect is negative, indicating that the more satisfied respondents are with the division of housework, the less likely they are to intend to become a parent soon. In the public-private ambivalent class, the effect is not significant, while in the egalitarian class, it is positive (see Table 2, slopes). Among the parents, the level of satisfaction with the division of housework does not predict fertility intentions.

These associations do not result in significant indirect effects (see Figure 4), but the significant interaction between class membership and the level of satisfaction with the division of housework at parity zero warrants closer attention. Because there also appear to be significant gender differences in this relationship, Figure 5 shows the class-specific fertility intentions at low (10^{th} percentile) and high (90^{th} percentile) levels of satisfaction with the division of housework stratified by gender (see Table A3 in the appendix for coefficient estimates). Notably, there no significant differences in fertility intentions between classes at high levels of satisfaction with the division of housework for men or women. What also stands out is that the interaction between class membership and satisfaction with the division of housework on fertility intentions appears similar for men and women in the non-egalitarian class (negative slope) and the egalitarian class (positive slope), but the public-private ambivalent class shows contrasting patterns: among men, those in the ambivalent class are more likely to intend to have a child the more satisfied they are with the division of housework, but this is not the case among women (comparable to the non-egalitarian class).

Figure 4. Differences between gender attitude classes in the association of the importance of parenthood and satisfaction with household division with fertility intentions for childless respondents



Indirect effects:

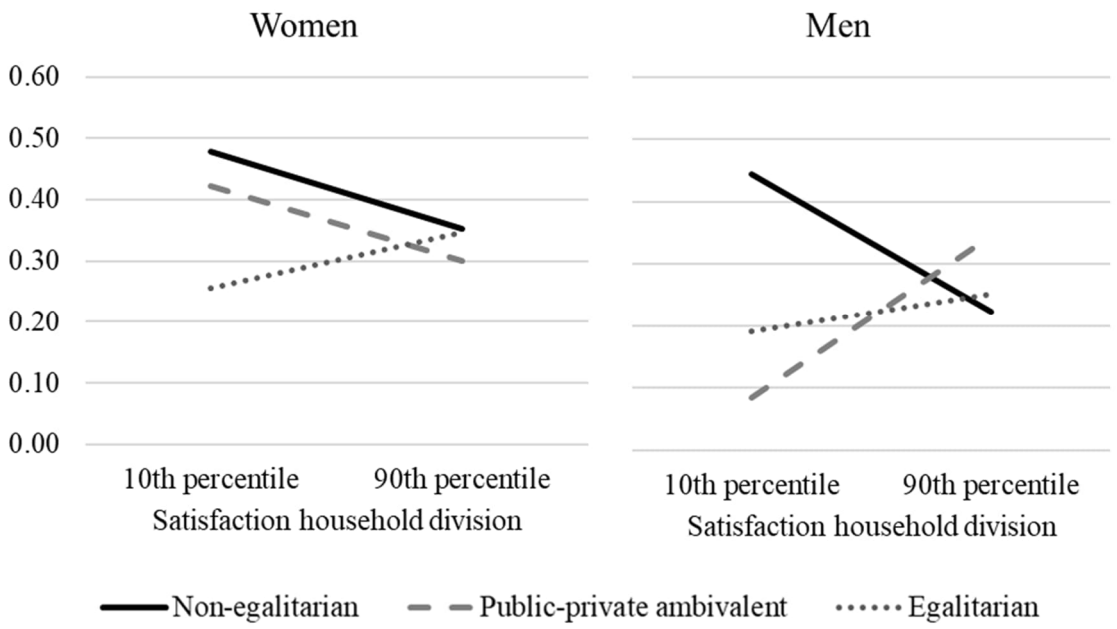
Non-egalitarian vs egalitarian -> Parenthood life goal - > fertility intention: 0.05 (0.01) ***
Ambivalent vs egalitarian -> Parenthood life goal - > fertility intention: 0.03 (0.01) ***

Non-egalitarian vs egalitarian -> Satisfaction household division - > fertility intention: 0.01 (0.01)
Ambivalent vs egalitarian -> Satisfaction household division - > fertility intention: 0.00 (0.01)

Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway; N=7,068.

Note: Indirect effects refer to class differences in total natural indirect effects. Fertility intentions controlled for gender, age, partnership status, education, employment status, migration background, presence and number of children, country of residence. See Table A2 for estimates. Intercept differences between classes refer to all control variables set at their (parity-specific) grand mean.

Figure 5. Fertility intentions of childless respondents at low and high levels of satisfaction with the division of housework by gender



Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway; N=7,068;

Note: Fertility intentions controlled for gender, age, partnership status, education, employment status, migration background, presence and number of children, country of residence. Intercept differences between classes refer to all control variables set at their (parity-specific) grand mean.

Robustness checks and additional analyses

We conduct a number of additional analyses and robustness checks (results available from the authors upon request). We obtain country-specific LCA results to ascertain that our decision to pool the three countries does not conceal relevant country differences in gender equality attitudes. We find that the three-class solution is preferred in all countries, and that the class patterns and sizes are substantively similar. We also examine the overall significance as well as pairwise comparisons of class-specific country slopes in predicting fertility intentions to assess whether class differences in fertility intentions differ by country; these effects are not significant.

We conduct the LC analysis without the gender-atypical answers on gender equality attitude items (excluding n=948 respondents) to make sure that the decision to code these responses as egalitarian does not influence the results. We find that the class pattern and distribution do not change.

In addition to short-term fertility intentions, we perform our analysis on a variable capturing general fertility intentions without specifying a time period of realization (intention to have a(nother) child at all), for which we differentiate between respondents who definitively intend to have (more) children (coded one) and all other answers (coded zero). The differences in fertility intentions between classes are somewhat smaller and the non-egalitarian and public-private ambivalent classes are more similar compared to the results pertaining to short-term intentions. The results with regard to the importance of parenthood as a life goal remain unchanged, but the interaction between satisfaction with the division of housework and class membership on long-term fertility intentions is not statistically significant. This is because the level of satisfaction with the division of housework does not predict the long-term fertility intentions of childless respondents in the non-egalitarian class and the public-private ambivalent class. However, in the egalitarian class, there remains a positive significant effect comparable in size to the effect on short-term fertility intentions and the differences in fertility intentions between classes are reduced to non-significance when evaluated at high levels of household satisfaction.

We also conduct various sensitivity checks: by restricting the age range in our sample to ages 25 to 40; by excluding employment and partnership status from the covariates for predicting fertility intentions; and by stratifying the analyses by partnership status. Our results remain robust to these changes in the model specification.

Conclusion

In this study, we have provided a comprehensive assessment of the micro-level associations between attitudes toward gender equality and intentions to have children in the context of three Nordic countries (Denmark, Finland, Norway). These countries have recently experienced a drop in fertility that has sparked new scholarly interest in cultural explanations for (low) fertility.

The fact that progress on all dimensions of gender equality is not moving forward at the same speed, implying potential ambivalence regarding public vs. private roles, has not been sufficiently acknowledged analytically, because until recently, survey instruments captured

attitudes toward gender equality as unidimensional scales ranging from non-egalitarian to egalitarian. For this reason, we believe that previous research could not identify important distinctions between individuals whose gender equality attitudes are situated beyond the egalitarian-non-egalitarian continuum. Using recent data and new instruments on attitudes toward gender equality, we identified individual profiles of gender equality attitudes, and considered their non-linear and multidimensional nature. We then assessed their relationship with fertility intentions.

We employed latent class analysis and identified three profiles of attitudes toward gender equality. The profiles that emerged from our data are largely in line with those found in previous studies employing a multidimensional conceptualization of gender equality attitudes (Begall et al., 2023, Grunow et al., 2018). The large majority of our sample (~70%) was classified in the profile *egalitarian,* which is characterized by response patterns showing support for gender equality in both public and private roles. The least prevalent profile (~10%), labeled *non-egalitarian,* is characterized by a response pattern that reflects gendered role assignments in the public (male) and the private (female) domain. In other studies, individuals with these attitudes are labeled traditionalists. However, we have refrained from using the term because in our view, it historicizes the male breadwinner/female housewife arrangement (Janssens, 1997). In addition, we found one multidimensional profile that lies beyond the egalitarian-non-egalitarian continuum by combining egalitarian views on public roles with support for gendered family roles, and which therefore clearly reflects the prominent notion of the stalled gender revolution. Our finding that in the highly gender-egalitarian context of the Nordic countries and our relatively young sample one in five individuals hold these ambivalent attitudes toward gender equality is remarkable in and of itself.

We believe that the new items on gender attitudes fielded in the GGP II provide significant gains in terms of conceptual clarity compared to the frequently used instruments stemming from the 1970s and 1980s. These older items primarily reflect the prevailing view of that time, which held that men's rights and roles are the fixed standard, and that differences in beliefs about gender are reflected only in opinions about women's rights and responsibilities. As a result, many survey items commonly used in cross-national research do not align well with the current discourses on gender and parenthood (Baber and Tucker, 2006).

Our analysis of fertility intentions showed that among men and women without children, attitudes towards gender equality are clearly and substantially connected with fertility

intentions, with the respondents in the non-egalitarian class being the most and the respondents in the egalitarian class being the least likely intend to have a child, and the respondents in the public private ambivalent class falling in between those in the other two classes. While the finding of a 5% to 10% reduced likelihood of reporting positive fertility intentions among respondents with egalitarian attitudes relative to those in the other classes may appear to be a small effect, it applies to the vast majority (71%) of the population of Scandinavian women and men we studied. Assuming that people realize their fertility intentions accordingly, the low fertility aspirations observed among the women and men with the most egalitarian attitudes may be an explanation for why gender-equal societies face challenges related to low fertility that are not rooted in the nature of the opportunity structure of parenthood. Likewise, the overall low prevalence (10%) of non-egalitarianism in the country contexts we studied suggests that even if the people in this group realize their higher fertility intentions, they may not be able to sufficiently contribute to fertility rates to stop the fertility decline in Scandinavia.

The respondents with an ambivalent gender equality attitude profile are more likely than the egalitarian respondents to report an intention to have a first child. This group, in which men are over-represented, is characterized by expressing support for gender equality in public roles, while sticking to gendered views on women's and men's abilities to take on care roles. It thus appears that for some men, their decision to start a family implies that they have ambivalent role expectations not for themselves, but rather for the possible mother of the child they plan to have. This may help to explain why the fertility intentions of the members of this group are similar to those of their non-egalitarian counterparts. The ambivalent attitude profile also contains disproportionally more parents for whom we could find no support for a potential association between attitudes toward gender equality and fertility. It is possible that parenthood itself is the source of ambivalence in attitudes toward gender equality. This could be clarified by studying the associations between attitudes and fertility from a life course perspective using panel data. Unfortunately, to date, no panel data exist that combine the multidimensional measurements of gender equality attitudes and fertility outcomes.

In a final set of analyses, we also looked at potential micro-level mechanisms connecting gender equality and fertility by taking into account the importance of parenthood as a life goal and satisfaction with the division of housework in the relationship between gender equality attitudes and fertility.

The study of the gender equality-fertility nexus is dominated by two explanatory perspectives. According to fertility-equality reversal theories, gender equality may foster fertility by encouraging couples to share paid and unpaid labor equally, and to thereby increase work-family compatibility. Proponents of the second demographic transition theory argue that value changes may reduce fertility by encouraging life goals that are incompatible with parenthood. We argue that both opposing mechanisms may be active simultaneously, which may account for the ambiguity that characterizes prior empirical evidence about the gender equality-fertility association at the micro level. Our study addressed two theoretical mechanisms that may intervene in the relationship between gender equality attitudes and fertility intentions: namely the importance of parenthood as a life goal as a measure of how central parenthood is in the life of the respondent, and the level of satisfaction with the division of housework as an indicator of the degree to which the division of unpaid work may form an obstacle to having a (another) child.

The results indicate that for childless respondents the lower orientation toward parenthood as a life goal among the egalitarian respondents compared to the other classes, which is, in turn, highly connected to fertility intentions, can partially explain the association between gender attitude profiles and fertility intentions. Notably, among egalitarian parents the importance respondents placed on parenthood is higher compared to their childless counterparts (while there is no difference by parenthood status in the other two classes), indicating the larger heterogeneity in life goals in the egalitarian group. These results are consistent with the theories of cultural change, like the SDT paradigm.

We also provide support for the micro-mechanisms proposed by gender-equality reversal theories, which emphasize the significance of the division of housework and, in particular, of a perceived double burden of work and care in linking attitudes toward gender equality with fertility. Our results show that while the majority of respondents report being highly satisfied with the division of housework, this does not necessarily translate into higher fertility intentions, as higher levels of satisfaction result in higher intentions to have a first child only among the egalitarian respondents and the men in the public-private ambivalent class. Among the non-egalitarian respondents and women with ambivalent attitudes, higher levels of satisfaction with the division of housework result in *lower* intentions to have a first child. The latter result is somewhat counterintuitive, and we are hesitant to put too much weight on this finding since it might be an artifact of selectivity and small group size. Indeed, the negative relationship between satisfaction with the division of housework and fertility was not found in

our robustness check employing long-term fertility intentions, but the positive relationship among egalitarian respondents was. We therefore cautiously conclude that, in line with gender-equality reversal theories, satisfaction with the division of housework appears to be a particularly important pre-requisite for having children among the egalitarian respondents, as they seem to be as likely than the other two attitude classes to intend to have a first child at very high levels of satisfaction.

Among parents – presumably the group for whom the division of tasks should be an even more salient issue when deciding whether to have another child – we found lower satisfaction with the division of housework among the non-egalitarian and the ambivalent respondents compared to among those with egalitarian attitudes, but no relationship between the extent of satisfaction and fertility intentions.

Although our study has provided significant insights into the micro-level associations between gender equality and fertility, a number of limitations should be considered. The cross-sectional nature of the data, which makes it difficult to separate selection from adaptation effects, is the most significant factor in our opinion. Thus, whether attitudes toward gender equality influence intentions, or whether attitude profiles reflect changes in intentions as a result of experiences, remains unclear. For instance, it has been demonstrated that being married or having a child strengthens gender-essentialist ideas (Schober and Scott, 2012, Endendijk et al., 2018, Cunningham et al., 2005, Baxter et al., 2015). The realization of fertility intentions may be addressed in a future study using longitudinal data. This would be highly instructive, especially with regard to the role conflicts that ambivalent gender role attitudes entail.

Furthermore, we limited our study to only three countries. While focusing on a relatively homogenous context in terms of the macro-level institutional and cultural support for gender equality was useful for contrasting the micro-mechanisms we were interested in, including other Scandinavian countries like Sweden would help us gauge the robustness of our findings. Sadly, this was hampered by data availability.

Our study of attitudes and fertility has ramifications for understanding the decline in fertility in the Nordic countries, as well as in low fertility contexts more generally. First, we found that individuals with egalitarian gender attitudes are less likely to have fertility aspirations. In each of the countries we looked at, this group is by far the largest. The assertion that gender equality is positively shaping the opportunity structures for women and men to have children while also pursuing careers may thus not necessarily imply a boost in fertility. Our analysis addressing

the mechanisms linking attitudes and fertility reveals that while sizable portions of the (childless) population in Scandinavia are indeed capable of realizing a satisfying division of household tasks with their partner, they do not necessarily prioritize parenthood as their main life objective. It thus appears that even if parenthood is made compatible with other aspects of life, gender-equal societies may face challenges due to continuously delayed first births, and the low fertility rates that follow.

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Appendix

Table A1. Model fit LCA

Classes	LL	AIC	BIC	aBIC	VLMR p-value	Entropy
2	-21600	43218	43287	43258	0.00	0.69
3	**-21523**	**43074**	**43180**	**43135**	**0.00**	**0.80**
4	-21514	43066	43210	43150	0.03	0.78
5	-21514	43076	43258	43182	0.74	0.67

Table A2. Coefficient estimates of control variables predicting fertility intentions, stratified by parity

	Fertility intentions					
	Parity 0			Parity 1+		
	B	SE	p	B	SE	p
Female	0.06	0.01	0.00	-0.03	0.01	0.00
Age	-0.01	0.00	0.00	-0.02	0.00	0.00
Partnership status						
Single	ref			ref		
Cohabiting	0.31	0.01	0.00	0.10	0.01	0.00
Married	0.27	0.02	0.00	0.08	0.01	0.00
Education	0.05	0.00	0.00	0.02	0.00	0.00
Employment status						
Full-time	ref			ref		
Not employed	0.00	0.01	0.87	-0.01	0.02	0.42
Part-time (<36h)	0.11	0.01	0.00	0.00	0.01	0.84
Country						
Norway	0.08	0.01	0.00	0.02	0.01	0.07
Denmark	0.14	0.01	0.00	0.07	0.01	0.00
Finland	ref			ref		
Not born in country	0.02	0.02	0.39	0.01	0.01	0.40
Parity						
One				ref		
Two				-0.29	0.01	0.00
Three+				-0.28	0.01	0.00
N	7,212			7,532		

Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway;

Tabel A3. Class specific estimates of satisfaction with household division on fertility stratified by gender

	Parity 0					
	Men			**Women**		
	B	**SE**	***p***	**B**	**SE**	***p***
Non-egalitarian	-0.45	0.23	*	-0.26	0.29	
Public-private ambivalent	0.53	0.20	**	-0.26	0.18	
Egalitarian	0.12	0.10		0.18	0.06	**
Global Wald test (χ2 (df))	9.07	(2)	*	7.09	(2)	*
N	3,211			3,972		
	Parity 1+					
	Men			**Women**		
	B	**SE**	**p**	**B**	**SE**	**p**
Non-egalitarian	-0.05	0.10		0.10	0.12	
Public-private ambivalent	-0.03	0.09		0.01	0.07	
Egalitarian	0.08	0.05	†	0.07	0.03	*
Global Wald test (χ2 (df))	2.13	(2)		0.59	(2)	
N	3,039			4,491		

Source: Generations and Gender Surveys Round II (2020-2022) for Denmark, Finland, and Norway;

Note: Fertility intentions controlled for gender, age, partnership status, education, employment status, migration background, presence and number of children, and country of residence. Intercept differences between classes refer to all control variables set at their (parity-specific) grand mean.