Having a child within a cohabiting union in Europe and North America: What is the role of parents' socio-economic status?

Judith C. Koops1,2 | Aart C. Liefbroer1,3,4 | Anne H. Gauthier1,2

1Netherlands Interdisciplinary Demographic Institute (NIDI/KNAW), The Hague, Netherlands
2University of Groningen, Groningen, Netherlands
3Department of Epidemiology, University Medical Centre Groningen, University of Groningen, Groningen, Netherlands
4Department of Sociology, Vrije Universiteit, Amsterdam, Netherlands

Correspondence
Judith Koops, Netherlands Interdisciplinary Demographic Institute (NIDI/KNAW), The Hague, Lange Houtstraat 19, Den Haag 2511CV. Netherlands.
Email: koops@nidi.nl

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Abstract
The link between parental socio-economic status (SES) and the likelihood of having a birth in cohabitation or in marriage varies considerably across countries. Previous studies have referred to the pattern of disadvantage perspective and the second demographic transition theory to explain this cross-national variation. Yet no study has directly tested the explanatory power of both theories in this context. In the current study, hypotheses are formulated about the influence of economic inequality and norms regarding family formation on this relationship. The hypotheses are tested in 19 European and North American countries, using data of the Generations and Gender Survey and four other datasets. The analyses show that in societies that have more traditional family formation norms, women with lower parental SES are more likely to have a birth in cohabitation whereas such differences are not found in less traditional societies. The influence of economic inequality is less clear-cut.

KEYWORDS
cohabitation, cross-national research, nonmarital fertility, parental socio-economic status, pattern of disadvantage, second demographic transition

1 INTRODUCTION

Decades ago, people followed a standard family formation pathway of directly marrying their partner after leaving the parental home and rearing children within this marriage in most Western societies (Modell, Furstenberg, & Hershberg, 1976). Since then, life courses have de-standardised and have increasingly been replaced by alternative pathways into family formation and parenthood (Billari & Liefbroer, 2010; Elzinga & Liefbroer, 2007; Sobotka & Toulemon, 2008). A prominent observation is the increasing decoupling of marriage and childbearing resulting in an increase in births to cohabiting couples (e.g., Kiernan, 2001a, 2004; Perelli-Harris et al., 2012; Seltzer, 2004; Sobotka & Toulemon, 2008).

Not everybody is equally likely to adopt this new behaviour. Research shows that family formation is stratified by parental socio-economic status (SES). Single-country studies found that young adults with lower parental SES are less likely to be married when becoming parents. This has been found for the United States (Aassve, 2003; Amato et al., 2008; Musick & Mare, 2006; Wu, 1996), the United Kingdom (Berrington, 2001; Ermisch, 2001; Ermisch & Francesconi, 2000), and Sweden (Bernhardt & Hoem, 1985). A cross-national study has examined the link between parental SES and the likelihood of having a first birth in marriage and cohabitation in several Western societies (Koops, Liefbroer, & Gauthier, 2017). The findings for North America align with those of the single-country studies: In the United States, women born to lower SES parents are more likely to have a first birth in cohabitation and less likely to have a
child within marriage. The same pattern is found in Canada and Central and Eastern Europe. In Western Europe, the effect of parental SES varies. In Norway, a negative effect on births in cohabitation is found (i.e., women with lower parental SES are more likely to have a birth in cohabitation). However, in Austria, Belgium, France, and the Netherlands either a positive effect (i.e., women with higher parental SES are more likely to have a birth in cohabitation) or no significant effect is found.

Two theories are commonly referred to in studies examining the influence of SES on family formation behaviour. The pattern of disadvantage perspective argues that social inequality combined with financial prerequisites for marriage results in the situation where people with a lower parental SES face constraints to marry in particular (McLanahan, 2004; Perelli-Harris et al., 2010). The second demographic transition theory attributes differences in family formation instead to changing norms regarding family life and the fact that cohabitation is in some countries viewed as an alternative to marriage, especially among people from higher socio-economic strata (Lesthaeghe & Surkyn, 2002). An empirical study has shown that the second demographic transition theory is important in explaining cross-national differences in the percentage of birth in cohabitation (Lappégard, Klüsener, & Vignoli, 2018). However, it remains unknown to what extent these theories can explain cross-national differences in the influence of parental SES on the chance of having a birth in cohabitation.

The current study focuses on the question why cross-national differences are found in the influence of parental SES on the chance of having a first birth in cohabitation. The contribution of this study to the existing literature is twofold: first, by focusing on the influence of parental SES rather than a person’s own SES. Similar to using own SES, using parental SES provides information on whether having a birth in cohabitation is stratified. In addition, focusing on parental SES offers the opportunity to examine if inequality in SES of parents is associated with inequality in family formation behaviour of their children. Therefore, the study fits in a wider literature that tries to understand what role family formation plays in the reproduction of inequality from one generation to the next (McLanahan, 2009; McLanahan & Percheski, 2008). The second contribution of the study is the introduction of macro-indicators measuring economic inequality and norms regarding family formation as moderators to the models. Using this design, we can test to what extent the second demographic transition theory and the pattern of disadvantage perspective are actually able to explain cross-national differences in the influence of parental SES on becoming a cohabiting mother.

This study uses information on women from 19 Western societies. Data from the Generations and Gender Survey were combined with the American National Survey of Family Growth, the Canadian General Social Survey, the British Household Panel Survey and the Dutch Survey on Family Formation. The results are based on event-history analyses using retrospective partnership and fertility histories. Meta-regressions instead of multi-level analyses are used to test the influence of the macro-indicators. Studies have shown that meta-regression can provide robust estimates, even when information for less than 30 countries is available (Brons, Liefbroer, & Ganzeboom, 2017; Bryan & Jenkins, 2016). Analyses were replicated using various specifications of parental SES to test the robustness of the findings.

2 | BACKGROUND

This section provides the theoretical framework that is used to derive hypotheses on the influence of economic inequality and norms regarding family formation. The section starts with a discussion of the literature that views births to cohabiting couples as the result of economic constraints and ends with the literature that focuses on differences in norms as an explanation for this phenomenon. Here, attitudes refer to the evaluations of aspects of the social world by an individual, whereas norms refer to rules within a group indicating how its members should (or should not) behave (Baron, Byrne, & Branscombe, 2006). Both subsections start with a discussion of the mechanisms which could explain how parental SES influences partnership status at birth. This is followed by a discussion of how country characteristics might affect these individual-level processes.

2.1 | The influence of economic constraints on having a child within cohabiting

The pattern of disadvantage perspective argues that women with a lower SES are more likely to have a birth in cohabitation because they face constraints to marry. Support for this theory is found in the United States, but also in Central and Eastern Europe (Koops, Liefbroer, & Gauthier, 2017; McLanahan, 2004; Mikolai, 2012; Perelli-Harris et al., 2010; Perelli-Harris & Gerber, 2011). Two reasons are mentioned to explain why women from a lower SES are more likely to have a birth in cohabitation: difficulties in finding a suitable marriage partner and the lack of financial resources to marry.

Qualitative research in the United States shows that even though women with a lower SES tend to value marriage and its role as a child-bearing institution, they are not always able to meet this ideal (Edin, 2000; Edin & Kefalas, 2005). Women mention doubts about their partner’s financial and/or emotional qualities as reasons to opt for cohabitation instead of marriage. This way, they keep their option open to start a new relationship in the future if the current relationship does not last. In addition, women mention cohabitation as a strategy to avoid financial responsibility for their partner (Edin, 2000). Another reason why lower SES women may cohabit is because they feel they lack the resources to marry their partners. These women have a list of prerequisites that they believe should be met before they are ready to marry (Clarkberg, 1999; Gibson-Davis, 2007; Gibson-Davis, Edin, & McLanahan, 2005; Smock & Greenland, 2010; Smock, Manning, & Porter, 2005). This list often includes matters related to financial resources and stability, such as the purchase of a
house, a stable income and availability of adequate savings for a ‘proper’ wedding (Cherlin, 2004).

One might expect that the inability to find a suitable marriage partner or the lack of financial resources and stability may trigger women with a lower SES to also postpone or forgo parenthood. However, research has found that this is not necessarily the case. Qualitative research suggests that motherhood can give a sense of purpose to women with limited opportunities for social and economic advancement (Edin & Kefalas, 2005). In other words, for these women motherhood is essential, whereas marriage is a luxury (McLanahan & Percheski, 2008). This is confirmed by a longitudinal study which shows that changes in income and earnings affect marriage but not childbearing (Gibson-Davis, 2009).

Considering the abovementioned mechanisms, one way in which parental SES may directly influence the likelihood of having a birth in cohabitation or marriage is through the intergenerational transmission of resources. Research shows that even after young adults leave their parental home, they may still receive material or financial support from their parents (Albertini & Kohli, 2013; Albertini, Kohli, & Vogel, 2007; Kohli, 1999; Ploeg, Campbell, Denton, Joshi, & Davies, 2004). Parents are particularly likely to transfer money or real estate in the period before and after the wedding (Bhaumik, 2007; Leopold & Schneider, 2011). However, higher SES parents are more likely to transfer material and financial resources than lower status parents (Albertini & Kohli, 2013; Berry, 2008; Leopold & Schneider, 2011; Zissimopoulos & Smith, 2009) and are therefore better able to help their adult children to reach the financial preconditions for marriage. Parental SES may also affect the (in)ability to find a suitable partner. Lower parental SES increases the likelihood of growing up in a poor neighbourhood, which may reduce the chance to meet an attractive marriage partner (Edin, 2000; Wu, 1996). Moreover, it is argued that peers use information on the resources of parents to predict the (future) economic potential of a person, which can influence their decision to marry this person (Aassve, 2003).

2.1.1 | The role of cross-national differences in economic inequality

Although the pattern of disadvantage perspective explains why lower parental SES increases the likelihood of having a first birth in cohabitation, as opposed to within marriage, recent evidence suggests that this mechanism is not equally applicable to all societal contexts (Koops, Liebroer, & Gauthier, 2017). In fact, in Western Europe, no significant effect or even a positive effect of parental SES is found.

One possible explanation for these cross-national differences focuses on countries’ level of economic inequality. The literature suggests that the preconditions for marriage are set by the high-status group (McLanahan & Percheski, 2008). In contexts with a large economic distance between low, medium and high-status groups, it is harder for young adults with lower parental SES to reach the financial and material preconditions set by the higher status group than in more economically equal societies (McLanahan & Percheski, 2008). Related to this argument, an American study shows that young women who grew up in lower SES households are more likely to have a nonmarital birth when they live in areas with higher levels of economic inequality (Kearney & Levine, 2014). The authors of this study argue that high levels of economic inequality give rise to ‘economic marginalization and desperation among those at the bottom of the income distribution’ (Kearney & Levine, 2014, p. 28), who therefore do not believe to gain from delaying childbirth or waiting until marriage. Kearney and Levine (2014) suspect that economic inequality could explain cross-national differences in a similar way, though they do not test this hypothesis. Research furthermore shows that the influence of parental SES on intergenerational transfers differs between countries (Albertini & Kohli, 2013; Zissimopoulos & Smith, 2009). Again, economic inequality might play a role, because the difference in material and financial resources that lower and higher SES parents can invest in their children is larger in societies with high economic inequality than in economically equal societies (Breen & Jonsson, 2005; Goldthorpe, 2000; Jerrim & Macmillan, 2015). Based on this literature, we hypothesise the following:

H1. Women with a lower parental SES are more likely to have a birth in cohabitation; the higher the level of economic inequality in a country, the stronger the negative association of parental SES with the likelihood of having a first birth in cohabitation.

2.2 | The influence of norms and attitudes on having a child within cohabiting

According to the second demographic transition theory, the need for autonomy and self-actualization has eroded traditional views on family life (Lesthaeghe, 2010; Van de Kaa, 2001) and is the driver behind the increase in births to cohabiting couples (Kiernan, 2001b). This view is supported by qualitative research indicating that cohabitation is associated with personal freedom, the ability to keep finances separate, and the freedom from social pressure to marry (Kiernan, 2001b; Perelli-Harris et al., 2014).

The second demographic transition theory suggests that the influence of the transition on demographic behaviour differs between women from higher and lower SES. Women with a higher socio-economic status are expected to have more progressive value orientations and are therefore more likely to cohabit (Van de Kaa, 2001). The differences between socio-economic groups may be caused by differences in parental socialisation through which parents affect the behaviour of their children by influencing their attitudes, preferences and intentions regarding family formation (Axinn & Thornton, 1993; Barber, 2000; Kolk, 2014). Whereas higher status parents emphasise self-direction, parents with a lower status tend to underscore conformity to external authority (Gauthier, 2015; Kohn, 1969; Weininger & Lareau, 2009). During their childhood, women with higher SES parents are therefore assumed to be socialised more strongly to be autonomous and self-reliant and consequently prefer cohabitation.
over marriage (Lesthaeghe & Surkyn, 2002). Women with lower SES parents are less likely to hold these postmodern values and more likely to follow more traditional family pathways.

2.2.1 The role of cross-national differences in norms towards family formation

The question is whether the abovementioned parental socialisation mechanism operates equally in all societies or is instead influenced by the national context. The key here may reside in the actual stage of the second demographic transition a country has reached. Generally, it is assumed that the second demographic transition started in Northern Europe and subsequently diffused to or was actively adopted in other Western societies (Lesthaeghe, 2010; Thornton, 2001; Van de Kaa, 2001). As a result, societies differ in the extent to which cohabitation is approved and seen as a proper childbearing institution (Hiekel, Liefbroer, & Poortman, 2014; Kiernan, 2001b). Country differences can be reinforced by laws and policies equalising legal responsibilities of cohabiting and married couples which are adopted in some countries, but not in others (Perelli-Harris & Gassen, 2012).

It could be argued that the result of parental socialisation depends on stage of the second demographic transition. In societies that are in the early stage of the second demographic transition, both women with lower and higher status parents are likely to prefer marriage over cohabitation. As a result, women will be more likely to follow the traditional pathway into family formation, regardless of parental SES. However, we expect that in countries that are in a later stage of the transition women with higher status parents are more positive about cohabitation as a reflection of their progressive value orientation, whereas those with lower status parents remain more traditional in their views. In this context, women with higher parental SES are more likely to choose cohabitation when starting their family than women with lower status parents. This leads to our second hypothesis:

H2. Women with a higher parental SES are more likely to have a birth in cohabitation; the less traditional family formation norms are in a country, the stronger the positive association of parental SES with the likelihood of having a first birth in cohabitation.

3 METHOD

3.1 Data and measurements

The data came from the Generations and Gender Survey Wave 1 Version 4.2 (Gauthier, Cabaço, & Emery, 2018; Generations and Gender Programme, 2019). All 15 countries for which information was available on fertility and partnership histories and parental SES were used: Austria, Belgium, Bulgaria, Czech Republic, Estonia, France, Georgia, Germany, Hungary, Lithuania, Norway, Poland, Romania, Russia and Sweden. For the United States and the United Kingdom, the Harmonized Histories dataset was used (Perelli-Harris, Kreyenfeld, & Kubisch, 2010), which is based on the data of, respectively, the National Survey of Family Growth (National Center for Health Statistics, 2011) and the British Household Panel Study (University of Essex Institute for Social and Economic Research., 2018). We also added data of respondents from the Canadian General Social Survey Cycle 20 (Béchard & Marchand, 2008) and the Dutch Survey on Family Formation 2008 (CBS, 2012). Table 1 gives an overview of the data sources that were used, and the year in which the data was collected.

3.1.1 Dependent variable

The dependent variable is partnership status at first birth. The variable differentiates between women who experienced the birth of their first biological child while they cohabited with a partner, women who were married when they became a mother (reference category) and women who did not experience any of these two events (yet). To construct this variable, information on the timing of events in the relationship history of the respondent (month and year of starting and ending marriages and cohabitations) was combined with information on the timing (month and year) of the birth of the first biological child. If respondents did not remember the exact month of the timing of an event, a random month within a season (in the countries where respondents were given the possibility to indicate a season instead of a month) or a random month within a year was assigned to this event.1

3.1.2 Individual-level independent variables

Parental SES was constructed by using information of the educational level of the father and/or the mother of the respondent. Parental SES is measured with the International Standard Classification of Education (ISCED). The outcome was divided into three categories: low (0 ≤ ISCED ≤ 2), medium (2 < ISCED ≤ 4) and high (4 < ISCED ≤ 6) parental SES. For 88% of the sample, information on father’s and mother’s educational attainment was available. In such cases, the variable is equal to the mean value of father’s and mother’s educational attainment. In all other cases, the variable is based on the information of only one parent. It is more common to only have information of the mother of the respondent. Information on educational attainment of fathers is mostly missing because the father was not part of the household when the respondent grew up.

Most likely, part of the influence of parental SES on family formation behaviour can be explained through the intergenerational transmission of SES. This mechanism refers to the consistent finding that children with lower SES parents obtain a lower SES than children with higher SES parents (Breen & Jonsson, 2005). Because the intergenerational transmission of SES might be stronger in some countries than in others (Blanden, 2009; Jerrim & Macmillan, 2015; Torche, 2015), we do control for women’s own SES in the models.
Own SES was approximated by own educational attainment measured with ISCED. Own SES was added as a time-varying covariate. Publicly available information of UNESCO was used to estimate the average age of finishing a certain ISCED level (UNESCO, n.d.). Age was added as a time-varying covariate, differentiating between ages 15–18, 19–22, 23–26 (reference category), 27–30 and 31+. Birth year of the respondent is a continuous variable centred at its country mean.

### 3.1.3 Country-level independent variables

**Norms regarding family formation** is calculated from the responses to a question in the European Value Study (EVS, 2011) and the World Value Survey (WVS, 2015). Respondents were asked if they tend to agree (1) or disagree (0) with the following statement: ‘Marriage is an outdated institution’. We calculated the mean score of two time points, one collected around 1990 and the other around 2008. The reason for using these two data points is that for these years, information for almost all countries was available. The variable is expressed as the proportion of respondents who agree with the statement in a given country (see Table 2). A higher score thus means that the population has less traditional norms regarding family formation. Economic inequality is measured with the Gini coefficient of income inequality which was obtained from The World Bank (n.d.). We used the average economic inequality for the period 1990–2008 (see Table 2). A higher Gini coefficient implies more economic inequality in a country.

### 3.2 Analytical strategy

Bryan and Jenkins (2016) argue that performing multi-level logistic analyses with less than 30 countries can increase the chance of making a Type I error (the incorrect rejection of a true null hypothesis), because the standard errors of the country-level estimates are biased downwards. Therefore, we use their alternative multi-step approach. This ‘dissects’ the analysis by first obtaining the country-specific effects of the individual-level variable of interest and subsequently estimating the effect of the country-level predictor on these country-specific effects.

Discrete-time competing risk models with monthly intervals were used to estimate the country-specific fixed effects of parental SES on the likelihood of experiencing a birth in cohabitation or marriage in each country. Women were followed from age 15, until the moment they experienced a birth in cohabitation or marriage. Women who had not experienced a birth at age 40 or who had not experienced a birth at the time of the interview were right censored. Women who experienced the birth of the first child while they were not living with

| Country     | Source            | Sample | PM      | Events | N (%) of births in cohabitation |
|-------------|-------------------|--------|---------|--------|---------------------------------|
| Austria     | GGS 2008–2009     | 2,530  | 297,203 | 1,234  | 485 (39)                        |
| Belgium     | GGS 2008–2010     | 2,042  | 280,111 | 940    | 296 (31)                        |
| Bulgaria    | GGS 2004          | 3,247  | 282,897 | 1,664  | 295 (18)                        |
| Canada      | GSS 2006          | 5,691  | 655,346 | 2,245  | 581 (25)                        |
| Czech Rep.  | GGS 2004–2006     | 2,250  | 236,119 | 769    | 109 (14)                        |
| Estonia     | GGS 2004–2005     | 1,776  | 187,173 | 843    | 404 (48)                        |
| France      | GGS 2005          | 2,583  | 296,520 | 1,051  | 483 (46)                        |
| Georgia     | GGS 2006          | 2,458  | 253,008 | 1,217  | 401 (33)                        |
| Germany     | GGS 2005          | 2,438  | 292,016 | 1,054  | 237 (22)                        |
| Hungary     | GGS 2004–2005     | 2,771  | 310,031 | 1,128  | 176 (16)                        |
| Lithuania   | GGS 2006          | 2,189  | 229,607 | 900    | 91 (10)                         |
| Netherlands | SFF 2008          | 2,176  | 281,094 | 1,268  | 314 (25)                        |
| Norway      | GGS 2007–2008     | 3,597  | 432,557 | 1,693  | 978 (58)                        |
| Poland      | GSS 2010–2011     | 5,001  | 618,752 | 2,543  | 306 (12)                        |
| Romania     | GGS 2005          | 2,202  | 240,676 | 1,090  | 105 (10)                        |
| Russia      | GGS 2004          | 2,103  | 189,040 | 1,057  | 181 (17)                        |
| Sweden      | GSS 2012–2013     | 2,653  | 352,065 | 1,369  | 841 (61)                        |
| UK          | BHPS 2005–2006    | 4,042  | 579,447 | 830    | 283 (34)                        |
| US          | NSFG 2006–2008    | 6,643  | 595,047 | 2,397  | 837 (35)                        |
| Total       |                   | 58,392 | 6,608,709| 25,292 | 7,403 (29)                      |

Abbreviations: BHPS, British Household Panel Survey; GGS, Generations and Gender Survey Wave 1; GSS, General Social Survey; NSFG, National Survey on Family Growth; SFF, Survey on Family Formation.
a partner left the risk when experiencing this birth, because they were no longer at risk of experiencing a birth in cohabitation or in marriage. After the risk set was prepared, we deleted all intervals from the period before 1990, to match the events at the individual-level with the period captured with the country-level variables. Table 1 provides an overview of the sample size, the number of person months in the risk set and the total number of events (births in cohabitation or marriage) that were captured in the risk set. Of the total number of events (births in cohabitation or marriage) that were captured in the risk set, 29% were births in cohabitation and 71% were births in marriage. The results of these interaction effects are presented in Table 4.

Next, two random-effects meta-analyses were performed on the country-specific effects of parental SES, using the command metan in stata 16. The first displayed the effect of low versus high parental SES on the likelihood of experiencing a birth in cohabitation or marriage, and the second compared the effect of medium versus high parental SES. The meta-analyses provide information on the overall effects of parental SES across countries and the extent of heterogeneity in the effects between countries. Subsequently, by running meta-regressions, the country effects of parental SES on the dependent variable were regressed on the country-level predictors. The metareg command in Stata 16 uses the Knapp-Hartung modification, which is a conservative method to estimate standard errors (Brons, Liebröer, & Ganzeboom, 2017). Simulations show that this method can be safely used in studies with 19 data points (Higgins & Thompson, 2004).

4 | RESULTS

4.1 | Cross-country heterogeneity in the effect of parental SES

Table 3 shows the effects of the individual-level variables on the likelihood of having a birth in cohabitation in the 19 countries, obtained with event-history analyses. The estimates of parental SES were extracted from these models and entered in meta-analyses. They show the effect of parental SES on the likelihood of having a birth in cohabitation per country and the overall effect across all countries. Because parental SES is entered as a dummy variable with high parental SES as the reference category, two separate meta-analyses were performed. The results of the meta-analyses are presented in Figure 1. The first graph of Figure 1 shows the effect of low parental SES and the second graph the effect of medium parental SES on the likelihood of having a birth in cohabitation.

On average, women with low or medium parental SES have a significantly higher likelihood of having a birth in cohabitation and a lower likelihood of having a birth in marriage, compared to women with high parental SES. This effect is stronger for low than for medium parental SES. Figure 1 furthermore reveals substantial between-country variation in the effect sizes ($I^2 = 70\%$ for low vs. high and $I^2 = 56\%$ for medium vs. high parental SES). Generally, the gradient of parental SES is larger in Central and Eastern Europe and in North America than in Western Europe. The substantial cross-national variation in the effect of parental SES justifies the exploration of the effect of macro-level indicators on these country-level differences.

4.2 | Explaining cross-country variation in the effect of parental SES

Using meta-regressions, we examined if differences in economic inequality and norms regarding family formation can explain between-country variation in the effect of parental SES on the likelihood of having a birth in cohabitation. The results of these interaction effects are presented in Table 4.

We hypothesised that in countries with a higher level of economic inequality, people with low or medium parental SES would be more likely to have a birth in cohabitation and less likely to have a birth in marriage than people with high parental SES. The meta-regressions indeed reveal interaction effects in the hypothesised direction. However, the effect is only statistically significant when comparing women with medium and high parental SES, and not when comparing women with low and high parental SES. Visual representations of the moderating effects of economic inequality are shown in Figure 2. The second graph of Figure 2 shows that in economically equal societies, like Sweden, women with medium and high parental SES have a very similar likelihood of having a first birth in cohabitation. In contrast, in countries with high levels of economic inequality, such as the United States, women with medium parental SES are more likely to have a birth in cohabitation than women with high parental SES.

### Table 2

Descriptive statistics of the country-level indicators economic inequality and norms towards family formation

| Country       | Norms towards family formation | Economic inequality |
|---------------|-------------------------------|---------------------|
| Austria       | 0.212                         | 30.4                |
| Belgium       | 0.288                         | 28.3                |
| Bulgaria      | 0.189                         | 29.8                |
| Canada        | 0.172                         | 32.8                |
| Czech Rep.    | 0.149                         | 26.5                |
| Estonia       | 0.148                         | 34.6                |
| France        | 0.322                         | 31.8                |
| Georgia       | 0.096                         | 40.1                |
| Germany       | 0.219                         | 30.7                |
| Hungary       | 0.157                         | 28.0                |
| Lithuania     | 0.134                         | 33.7                |
| Netherlands   | 0.240                         | 30.7                |
| Norway        | 0.150                         | 27.4                |
| Poland        | 0.120                         | 32.9                |
| Romania       | 0.140                         | 29.4                |
| Russia        | 0.174                         | 39.8                |
| Sweden        | 0.170                         | 26.1                |
| UK            | 0.204                         | 37.2                |
| US            | 0.101                         | 39.9                |

*aProportion agree marriage is outdated. 
*bGini coefficient income inequality.
Expressed as relative risk ratios, the results show that in a country with low-income inequality of 25 (like Sweden) for women with low instead of high parental SES, the relative risk for a birth in cohabitation increases by a factor of 1.05. In a country with a high level of income inequality of 40 (like the United States), for women with low instead of high parental SES, the relative risk for a birth in cohabitation increases by a factor of 1.73.\(^4\)

| AUS | BEL | BUL | CAN | CZE | EST | FRA |
|-----|-----|-----|-----|-----|-----|-----|
| Parental SES (ref. High) | | | | | | |
| Low | −0.005 | 0.001 | 1.002\(^\ast\) | .971\(^\ast\) | 0.390 | 0.801\(^{**}\) | 0.350 |
| Medium | −0.050 | 0.019 | −0.066 | 0.593\(^\ast\) | 0.009 | 0.557\(^{**}\) | 0.362 |

| Own SES (ref. High) | | | | | | |
| Low | 0.096 | 0.206 | 1.601\(^\ast\) | 1.310\(^\ast\) | 1.584\(^{**}\) | 1.060\(^{**}\) | 0.399\(^{***}\) |
| Medium | 0.255 | 0.028 | 0.402 | 0.498\(^\ast\) | 0.513 | 0.425\(^{**}\) | 0.315 |

| Birth year | 0.058 | 0.082\(^\ast\) | 0.121\(^\ast\) | 0.018\(^{***}\) | 0.107\(^\ast\) | 0.071\(^\ast\) | 0.025\(^\ast\) |

| Age (ref. 23-26) | 0.218 | 1.228 | −0.553 | 1.092\(^{***}\) | −0.183 | −0.803\(^{***}\) | 1.292\(^{***}\) |
| 19-22 | −0.132 | 0.671\(^{**}\) | −0.450\(^{***}\) | 1.031\(^\ast\) | 0.247 | −0.451\(^{***}\) | 0.772 |
| 27-30 | −0.196 | 0.167 | 0.275 | −0.535\(^\ast\) | 0.878\(^{**}\) | 0.484\(^{***}\) | −0.152 |
| 31+ | 0.142 | 1.866 \(^\ast\) | 2.416\(^\ast\) | −0.533\(^\ast\) | 3.295\(^\ast\) | 1.360 | 0.449 |

| GEO | GER | HUN | LIT | NET | NOR | POL |
|-----|-----|-----|-----|-----|-----|-----|
| Parental SES (ref. High) | | | | | | |
| Low | 0.693\(^{**}\) | −0.285 | 0.889\(^{***}\) | 1.072\(^{***}\) | −0.237 | 1.055\(^\ast\) | 0.237 |
| Medium | 0.268 | −0.028 | 0.609 | 0.650 | −0.114 | 0.585\(^\ast\) | 0.562 |

| Own SES (ref. High) | | | | | | |
| Low | 0.351 | 0.399 | 1.061\(^{**}\) | 1.730\(^\ast\) | −0.138 | 0.707\(^\ast\) | 1.241\(^\ast\) |
| Medium | −0.186 | −0.121 | 0.478 | 0.358 | −0.114 | 0.345\(^{**}\) | 0.452\(^{***}\) |

| Birth year | 0.050 | 0.020 | 0.109\(^{**}\) | 0.110\(^{**}\) | 0.097\(^\ast\) | 0.024\(^\ast\) | 0.076\(^\ast\) |

| Age (ref. 23-26) | 0.218 | 1.228 | −0.553 | 1.092\(^{***}\) | −0.183 | −0.803\(^{***}\) | 1.292\(^{***}\) |
| 19-22 | −0.132 | 0.671\(^{**}\) | −0.450\(^{***}\) | 1.031\(^\ast\) | 0.247 | −0.451\(^{***}\) | 0.772 |
| 27-30 | −0.196 | 0.167 | 0.275 | −0.535\(^\ast\) | 0.878\(^{**}\) | 0.484\(^{***}\) | −0.152 |
| 31+ | 0.142 | 1.866 \(^\ast\) | 2.416\(^\ast\) | −0.533\(^\ast\) | 3.295\(^\ast\) | 1.360 | 0.449 |

| ROM | RUS | SWE | UK | US |
|-----|-----|-----|-----|-----|
| Parental SES (ref. High) | | | | | |
| Low | 0.012 | 0.683\(^{***}\) | 0.173 | 0.544 | 0.854\(^\ast\) |
| Medium | −0.847 | 0.578\(^{**}\) | −0.023 | 0.306 | 0.706\(^\ast\) |

| Own SES (ref. High) | | | | | |
| Low | 1.747\(^{**}\) | 0.570 | 0.012 | 0.881\(^{***}\) | 1.624\(^\ast\) |
| Medium | 0.484 | −0.208 | 0.549\(^\ast\) | 0.529\(^{**}\) | 1.356\(^\ast\) |

| Birth year | 0.119\(^\ast\) | 0.049\(^{**}\) | −0.006 | 0.019 | 0.046\(^\ast\) |

| Age (ref. 23-26) | 0.218 | 1.228 | −0.553 | 1.092\(^{***}\) | −0.183 | −0.803\(^{***}\) | 1.292\(^{***}\) |
| 19-22 | −0.132 | 0.671\(^{**}\) | −0.450\(^{***}\) | 1.031\(^\ast\) | 0.247 | −0.451\(^{***}\) | 0.772 |
| 27-30 | −0.196 | 0.167 | 0.275 | −0.535\(^\ast\) | 0.878\(^{**}\) | 0.484\(^{***}\) | −0.152 |
| 31+ | 2.786\(^\ast\) | 1.504\(^{**}\) | −0.690\(^{**}\) | −0.883\(^{**}\) | −0.600\(^{**}\) |

Note. The results are based on a discrete-time competing risk models using monthly intervals.

\(^{*}\) p < 0.05 (based on two tailed tests).

\(^{**}\) p < 0.01.

\(^{***}\) p < 0.001.
The first graph of Figure 2 provides insight into why no significant interaction effect was found of economic inequality on the association of low parental SES with the likelihood of having a birth in cohabitation. As expected, in economically unequal societies, women with low parental SES are more likely to have a birth in cohabitation than women with high parental SES. The difference is even larger than between women with medium and high parental SES. However, in more economically equal societies, we also find that women with low parental SES are more likely to have a birth in cohabitation. Although this effect is not as strong as in economically unequal societies, the difference is not statistically significant.

The second hypothesis states that the less traditional family formation norms are in a country, the stronger the positive association of parental SES with the likelihood of having a first birth in cohabitation. Or alternatively phrased, in countries with less traditional norms regarding family formation, women with low or medium parental SES are less likely to have a birth in cohabitation than women with high parental SES. The results of the meta-regressions presented in the last two columns of Table 4, show that the interaction effects are in the hypothesised direction. There is a clear gradient in the interaction effects. The effect of norms regarding family formation has a larger impact on the cross-national
differences in the effect of low versus high parental SES on the likelihood of having a birth in cohabitation, than on medium versus high parental SES.

Based on the second demographic transition theory, we expected to find a positive association between parental SES with the likelihood of having a first birth in cohabitation in less traditional countries. In other words, it was expected that in this context, the higher SES are more likely to have a birth in cohabitation. However, further inspection of the moderating effects in Figure 3 reveals a different story. In less traditional countries, no effect of parental SES is found, whereas in traditional countries, people with low or medium parental SES are more likely to have a birth in cohabitation. Figure 3 also shows how

| Parental SES       | Low    | Medium | Low    | Medium |
|--------------------|--------|--------|--------|--------|
| Economic inequality | 0.137 (0.106) | 0.149** (0.066) |
| Norms towards family formation | 0.495*** (0.107) | 0.286*** (0.071) |
| Constant           | 0.511*** (0.095) | 0.297*** (0.072) |

aGini coefficient income inequality.

bProportion agree marriage is outdated.

*p < 0.05 (based on one tailed tests).

**p < 0.01.

***p < 0.001.
the gradient in the effect of norms regarding family formation on the individual-level mechanisms comes about. In less traditional countries, women with low, medium and high parental SES are equally likely to experience a birth in cohabitation or in marriage. However, in traditional countries, women with medium and low parental SES are more likely to have a birth in cohabitation than women with high parental SES, and this difference is larger for women with low parental SES than for women with medium parental SES.

Expressed as relative risk ratios, the results show that in a country in which 30% of the population believe that marriage is outdated (like France), for women with low instead of high parental SES, the relative risk for a birth in cohabitation increases by a factor of 1.04. In this situation for women with medium instead of high parental SES, the relative risk for a birth in cohabitation increases by a factor of 1.02. In a country in which 10% of the population believe that marriage is outdated (like the United States), for women with low instead of high parental SES, the relative risk for a birth in cohabitation increases by a factor of 2.26. In this situation for women with medium instead of high parental SES, the relative risk for a birth in cohabitation increases by a factor of 1.60.5

4.3 Robustness of the findings

Because both parents can contribute to the available resources and the socialisation of their children, it is assumed that both father’s and mother’s SES would matter, which justifies using the average of parental SES in the models. To test this assumption, all models were run again using different specifications of parental SES, namely, highest parental SES (which takes the highest value of mother’s or father’s educational attainment), mother’s SES (which takes mother’s educational attainment) and father’s SES (which takes father’s educational attainment). A summary of the results is provided in Table 5. To facilitate the comparison with the main model, Table 5 starts with a summary of the results of the models including mean parental SES which were discussed previously. The additional meta-analyses suggest that both father’s and mother’s SES are important to explain the likelihood of having a birth in cohabitation. However, the largest overall effect sizes as well as between-country variations are found when mean parental SES is used. The results of the meta-regressions show that the interaction effects between the macro-indicators and the association of parental SES with the

| TABLE 5 | Robustness analyses. Overview of estimates based on the meta-analyses and meta-regressions, using different specifications of parental SES |
| --- | --- |
| **Association of parental SES (ref. high) with the likelihood of having a birth in cohabitation** | **Low** | **Medium** |
| **Mean parental SES** | | |
| Overall effect size across countries | 0.50; 95% CI [0.28–0.72] | 0.29; 95% CI [0.14–0.45] |
| Cross-national variation in effect size | $\text{I}^2 = 70\%$ | $\text{I}^2 = 56\%$ |
| Economic inequality$^a$ | 0.137 | 0.149$^{**}$ |
| Norms towards family formation$^b$ | $-0.231^{**}$ | $-0.132^*$ |
| **Highest parental SES** | | |
| Overall effect size across countries | 0.45; 95% CI [0.27–0.64] | 0.30; 95% CI [0.19–0.41] |
| Cross-national variation in effect size | $\text{I}^2 = 68\%$ | $\text{I}^2 = 42\%$ |
| Economic inequality$^a$ | 0.112 | 0.059 |
| Norms towards family formation$^b$ | $-0.148$ | $-0.057$ |
| **Father’s SES** | | |
| Overall effect size across countries | 0.48; 95% CI [0.32–0.65] | 0.28; 95% CI [0.15–0.41] |
| Cross-national variation in effect size | $\text{I}^2 = 55\%$ | $\text{I}^2 = 41\%$ |
| Economic inequality$^a$ | 0.081 | 0.122$^{**}$ |
| Norms towards family formation$^b$ | $-0.140^{**}$ | $-0.098$ |
| **Mother’s SES** | | |
| Overall effect size across countries | 0.35; 95% CI [0.13–0.59] | 0.21; 95% CI [0.09–0.34] |
| Cross-national variation in effect size | $\text{I}^2 = 73\%$ | $\text{I}^2 = 37\%$ |
| Economic inequality$^a$ | 0.140 | 0.076 |
| Norms towards family formation$^b$ | $-0.184^{***}$ | $-0.108^{***}$ |

$^a$Gini coefficient income inequality.
$^b$Proportion agree marriage is outdated.
$^* p < 0.05$ (based on one tailed tests).
$^{**} p < 0.01.$
$^{***} p < 0.001.$
likelihood of having a birth in cohabitation are stronger when mean parental SES is used than when mother’s or father’s SES are used independently of each other in the models. When using the highest value of mother’s or father’s SES, no significant interaction effects are found.

5 | DISCUSSION

The current study examines the cross-national variation in the relationship between parental SES on women’s likelihood of having a first birth in cohabitation or in marriage. Previous research have shown that this relationship varies considerably across countries and have referred to the pattern of disadvantage perspective and the second demographic transition theory to explain these differences (e.g., Koops, Liefbroer, & Gauthier, 2017). However, these studies have not directly tested the explanatory power of both theories. Drawing on these theories, we hypothesise that the association of parental SES with the likelihood of having a first birth in cohabitation is more negative—thus more common among women with lower SES parents—in countries with a higher level of economic inequality (H1) and more positive – thus more common among women with higher SES parents—in countries that are less traditional in norms regarding family formation (H2). These hypotheses were tested with data covering Western, Central and Eastern Europe as well as North America. Parental SES was approximated by parental educational attainment.

Economic inequality significantly alters the likelihood of having a birth in cohabitation when comparing women with medium and high parental SES. In economically unequal societies, women with medium parental SES are more likely to have a birth in cohabitation than women with high parental SES, whereas this difference is not found in more economically equal societies. We had expected to find a gradient in the effect, where the level of economic inequality would affect the differences between women with low and high parental SES on the likelihood of having a birth in cohabitation more than the differences between women with medium and high parental SES. The results instead showed that the difference between low and high parental SES is somewhat smaller and the difference is not statistically significant. Perhaps, living in a more economically equal society does not prevent women with a low parental SES from being marginalised. This may decrease their incentive to forgo a birth outside of marriage also in these countries (Kearney & Levine, 2014). Alternatively, it is possible that cohabiters might want to wait with marriage (but not necessarily with having children) until they are financially stable and that this is harder to obtain for women with low parental SES even in economically equal societies (McLanahan & Percheski, 2008). However, for the moment, we deem it too early to formulate firm conclusions regarding the effect of economic inequality, and we will leave it to future research to examine if the same pattern is found when a different sample of countries is used. It may also be worthwhile to repeat these analyses with other indicators of parental SES which were not available in the data used in this study, such as parental income or parental wealth.

Norms regarding family formation significantly influence the association of parental SES with the likelihood of having a birth in cohabitation. The analyses show that parental SES matters in countries with more traditional family norms. In these countries, women with lower SES parents are more likely to have a birth in cohabitation, compared to women with higher SES parents. However, in countries with less traditional family norms, women are equally likely to have a birth in cohabitation regardless of the level of parental SES. We find a gradient in the effect: the interaction effect is stronger for low versus high than for medium versus high parental SES. The finding that socio-economic inequalities are smaller in countries that are less traditional does therefore align somewhat with the second demographic transition theory. However, based on the second demographic transition theory one might expect that in traditional societies, births to cohabiting couples are almost nonexistent. Instead, this research shows that even in countries where marriage is highly valued, births in cohabitation are not uncommon but are mostly adopted among those with lower parental SES. This relates to the literature regarding the meaning of cohabitation (Bumpass & Raley, 1995; Rindfuss & Vandenhuevel, 1990). It appears that in countries where marriage is highly valued, such as the United States and in Central and Eastern Europe, cohabitation functions as a ‘poor man’s marriage’. In this context, having a birth in cohabitation is not necessarily the preferred situation but is chosen as a second-best option. In societies in which less value is attached to marriage, cohabitation might become an interesting alternative to marriage (Heuveline & Timberlake, 2004; Hiekel & Castro-Martín, 2014; Holland, 2013). This may be particularly the case for those growing up with higher SES parents, who maybe socialised more strongly during their childhood to be autonomous and self-reliant and who may view cohabitation as a reflection of equality and independence in their relationship.

The term ‘poor-man’s marriage’ suggests that there are not many differences between cohabiting and married couples. However, through laws and policies, cohabiting couples and parents are often treated differently than married couples and parents. Union status can play a role in the rights and responsibilities of partners and in entitlement to tax and social security benefits (Perelli-Harris & Gassen, 2012). These differences can already come about during a union, but also after a union dissolves, or when a partner passes away (Perelli-Harris & Gassen, 2012). In fact, differences in treatment may particularly occur in societies where marriage is highly valued. Of course, couples may choose cohabitation exactly because fewer rights and responsibilities are attached to it. However, it is possible that these laws and regulations—unintentionally—aggravate inequalities between socio-economic groups at the national level. Even in countries where parental SES is not related to having a birth in cohabitation further research may be worthwhile. Research in the Netherlands suggests that in a context where different legal types of cohabitation exist, groups of people may differ in the type they choose (Poortman & Mills, 2012). It is therefore possible that socio-economic differences still exist but are obscured by the fact that in the data sources used in our study, the different types of cohabitation are lumped together.
Using data on a large range of countries comes with limitations, especially regarding the availability of suitable macro-indicators. Because information on the macro-indicators used in this study were mostly available for recent years, we had to restrict our sample to women who had their first child in the past decades. We could therefore not test if the macro-indicators explain variation in the effect of parental SES over time. Therefore, it remains unclear if the macro-indicators are as important in explaining within-country variation as they are for explaining between-country variation. The cross-national focus also limited the scope of available macro-indicators. Ideally, the study would have examined a range of perceptions regarding marriage and cohabitation. Instead, only one variable was available which came closest to the concept we wanted to measure and which was available for all countries.

Regardless of these data limitations, the current study makes important contributions to the literature. The current study underscores the importance of parental SES on the chance of having a first birth in cohabitation, beyond the indirect effect through an individual's own SES. Based on previous research, we deem it likely that parents exert this influence through socialisation and the transfer of financial goods. However, this study also shows that the influence of parental SES differs substantially between countries. Women with lower parental SES have a higher chance to have a birth in cohabitation when they live in societies with more traditional views on family formation. However, in societies with less traditional views, parental SES does not play an important role in women's chances to have a birth in cohabitation or in marriage. It is possible that differences in economic inequality between countries play a role; however, further research is needed in this regard.

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DATA AVAILABILITY STATEMENT
Data subject to third party restrictions are as follows: Generations and Gender Survey Wave 1 Version 4.2 and Harmonized Histories dataset: the data that support the findings of this study are available from Generations and Gender Survey. Restrictions apply to the availability of these data, which were used under licence for this study. Data are available at https://www.ggpp.org/ with the permission of Generations and Gender Survey. Dutch Survey on Family Formation 2008: the data that support the findings of this study are available from Data Archiving and Networked Services. Restrictions apply to the availability of these data, which were used under licence for this study. Data are available at https://dans.knaw.nl/nl with the permission of Centraal Bureau voor de Statistiek. Canadian General Social Survey Cycle 20: the data that support the findings of this study are available from Statistics Canada. Restrictions apply to the availability of these data, which were used under licence for this study. Data are available via Statistics Canada with the permission of Statistics Canada. Data derived from public domain resources are as follows: European Value Study: the data that support the findings of this study are available in GESIS at https://www.gesis.org/ reference number ZA5174. These data were derived from the following resources available in a public domain (doi:10.4232/1.11005). World Value Survey: the data that support the findings of this study are available in WVS Database (at http://www.worldvaluessurvey.org/wvs.jsp). These data were derived from the following resources available in a public domain (http://www.worldvaluessurvey.org/wvs.jsp). The World Bank: the data that support the findings of this study are available in PovcalNet (at http://iresearch.worldbank.org/PovcalNet/home.aspx). These data were derived from the following resources available in the public domain: online analysis tool for global poverty monitoring. Data citations are as follows: EVS; 2011; European Values Study 1981–2008, Longitudinal Data File; GESIS Data Archive, Cologne, ZA4804; Data File Version 2.0.0; doi:10.42232/1.11005 and Centraal Bureau voor de Statistiek; 1988; Onderzoek gezinsvorming–OGV 1988 1993 1998 2003 2008; DANS; doi:10.17026/dans-znk-f36y.

ORCID
Judith C. Koops https://orcid.org/0000-0002-7449-3480
Aart C. Liefbroer https://orcid.org/0000-0002-7884-3150
Anne H. Gauthier https://orcid.org/0000-0001-9808-2857

ENDNOTES
1 The percentage of imputed month information was generally low: for first birth <1%, for start of first union 7%, and for start first marriage 2%.
2 For Georgia, information of 1996 was used because information 1990 is not available. For Canada and the United States information of 2005/2006 was used because information of 2008 is not available.
3 The World Bank does not provide a GINI coefficient for all years in this period, and the frequency of data points differs between countries. The number of data points for this period ranges from 3 in France to 13 in Georgia, with an average of 7 data points per country. For all countries, the data points are reasonably spread over the given period.
4 $e^0.049 = 1.05$; $e^0.549 = 1.73$.
5 $e^0.035 = 1.04$; $e^0.024 = 1.02$; $e^0.817 = 2.26$; $e^0.471 = 1.60$.

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