

RESEARCH ARTICLE

Value Change and the New Wave of Fertility Postponement in Western Europe

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Since 2010, Western Europe has experienced a renewed wave of fertility postponement, contributing to declining fertility rates and rising childlessness. Although multiple explanations have been proposed, the role of ideational factors remains underexplored. This study examines whether broad changes in values help explain contemporary fertility postponement, drawing on the framework of the Second Demographic Transition (SDT). We apply Schwartz's theory of basic human values to investigate trends in openness-to-change and conservation among women of childbearing age, assessing both aggregate changes over time and individual-level associations with having entered parenthood. Results show that these values are strongly associated with differences in entry into motherhood. However, the stability in value orientations over time suggests that values are unlikely to be a primary driver of the recent fertility postponement trend. Moreover, the relationship between values and entry into motherhood has remained unchanged, indicating that contemporary postponement extends across value orientations. Some regional heterogeneity emerges, with Southern Europe showing value shifts that may contribute to fertility postponement, though their overall influence appears limited. We conclude that broad shifts in SDT-related values are unlikely to explain the widespread fertility decline observed in Western Europe.

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Introduction

Persistent fertility declines across Western Europe continue to puzzle demographers. Despite occurring in economically, culturally, and institutionally heterogeneous countries, the declines display a striking degree of uniformity in both timing and trajectory. Though the onset of the declines coincides with the Great Recession, their persistence beyond periods of economic recovery—and the difficulty of reconciling these trends with changes in either gender equality or welfare policies—suggest that their causes may lie in more fundamental shifts in how individuals view and prioritize childbearing.

In this context, the broader public debate has increasingly come to center on the role of culture in explaining these trends. Specifically, changing lifestyles among younger generations—who are often portrayed as more individualistic and as placing less emphasis on family life than prior generations—have become a central theme in contemporary media discourse on childbearing, frequently framed in opposition to questions of affordability (see, e.g., Kitchener 2023; Murray 2024; Rachman 2025). Similar interpretations have also become more prominent in political discourse, where declining fertility is at times attributed to changing values among the young. In particular, such arguments have been closely connected to the rise of pronatalist agendas across European states (Vignoli and Guetto 2025), which are often formulated not only as addressing structural barriers to childbearing, but also as seeking to counter a culture perceived as discouraging family formation (e.g., Meloni at the Budapest Demographic Summit (PDR 2023)).

At the same time, the difficulty of linking recent fertility declines to conventional, economic, and institutional explanations has led to a growing emphasis on cultural preferences within the academic literature as well. This is particularly visible in the Nordic context, where several recent studies point to broad cultural shifts as a possible explanation for the persistence of the declines (see Dommermuth, Lyngstad and Wiik 2025; Golovina et al. 2024; Hellstrand, Nisén and Myrskylä 2020; Helminen et al. 2025). However, similar arguments have also been extended more broadly, with changes in values and priorities invoked as explanations for contemporary postponement across Western societies (Kearney, Levine and Pardue 2022; Kearney and Levine 2026; Lesthaeghe and Zeman 2024). Correspondingly, a number of studies have begun to examine the relationship between such priorities and fertility behavior in the context of recent declines (most notably Her and Chen 2026).

Taken together, these developments point to a renewed emphasis on ideational explanations of fertility decline, as most prominently articulated in the framework of the Second Demographic Transition (SDT). In this framework, fertility declines are understood as reflecting broader ideational

shifts toward self-realization, individual autonomy, and a declining inclination to follow traditional life courses or enter long-term commitments. As such, the SDT offers a coherent interpretation of the cross-national similarity of recent fertility declines and their partial decoupling from conventional economic and institutional determinants.

Despite the growing appeal of SDT-related explanations of fertility decline, the empirical evidence directly linking value change to the current fertility decline remains scarce. The most prominent empirical support for such interpretations comes from observed declines in fertility desires over the period of fertility decline (Golovina et al. 2024; Hartnett and Gemmill 2020; Lai, Neyer and Andersson et al. 2026), though it remains unclear whether these changes reflect shifts in underlying values or broader ideational orientations. The fundamental assumptions underlying ideational explanations—that underlying value orientations both shape childbearing behavior and have shifted over time in ways consistent with recent fertility declines—are yet to be tested. This study addresses this gap by integrating Schwartz's (1992, 1994, 2012) *theory of basic human values* (TBHV) into the SDT framework. Specifically, it examines whether values are associated with having entered motherhood at the individual level, and whether these associations are accompanied by corresponding changes in the distribution of values over time, as would be expected under value-based explanations of recent fertility postponement. Using data from the European Social Survey (ESS) (2002–2022), the analysis focuses on the higher-order values of openness-to-change and conservation and their association with having entered motherhood among women of childbearing age. The study also examines whether the association between values and having entered motherhood has changed over time, and whether these patterns vary across European regions and educational groups.

In what follows, we first describe changes in childbearing patterns and behavior in 21st-century Western Europe, and link these changes to the ideational shifts of the SDT at the macro level. We then turn to the TBHV, which we argue offers a promising framework for understanding the relationship between values and fertility behavior at the micro level, and connect this framework to the ideational components of the SDT. Finally, we outline the study's aims and hypotheses, contending that while micro-level associations and aggregate correlations are not sufficient to explain contemporary fertility decline, they constitute a necessary empirical condition for any explanation based on value change.

Literature review and theoretical framework

Fertility postponement in the 21st century

In the early 21st century, Western countries experienced an unprecedented convergence of fertility trends, with uniform increases in fertility rates that

seemed to signal the end of “lowest-low” fertility (Bongaarts and Sobotka 2012; Goldstein, Sobotka and Jasilioniene 2009). Following the Great Recession, however, fertility rates again declined sharply and, contrary to expectations, have remained persistently low, showing only a weak connection to objective economic indicators (Comolli et al. 2021; Vignoli et al. 2020).

Western Europe has been particularly affected by these declines. The sharpest reductions have occurred in the Nordic countries—long regarded as fertility-friendly contexts—with Sweden, Finland, and Norway reaching lowest-recorded fertility rates in 2023/2024 (1.43, 1.25, and 1.40 children per woman, respectively). However, similarly consistent declines are evident across the other northwestern European countries, and despite already low fertility rates in Southern Europe, the region has seen a continuing decline, leading to a convergence in fertility rates across Western Europe. Indeed, by 2023, total fertility rates in Western Europe had narrowed to a relatively small range, from 1.66 in France to 1.12 in Spain.

Evidence from the Nordic countries and the United States points to declining first birth rates as a primary driver (Hellstrand, Nisén and Myrskylä 2020; Kearney, Levine and Pardue 2022; Ohlsson-Wijk and Andersson 2022), largely reflecting delays in childbearing during early adulthood (Lesthaeghe and Zeman 2024). Consequently, the age-conditional prevalence of childlessness has increased (Beaujouan and Neels 2025), a development often interpreted as a prolonged period of postponement.

The remarkable uniformity of the fertility decline across diverse contexts—and, in particular, its impact not only on countries with traditionally low fertility but also on those long regarded as relatively immune to such declines—has given rise to extensive debate. A central theme in this debate has been the apparent decoupling of fertility trends from objective economic conditions, which has shifted scholarly attention toward subjective determinants. Explanations have variously emphasized uncertainty linked to globalization, rising direct and indirect costs of childbearing, and changing cultural norms around parenting (Comolli 2023; Matysiak and Vignoli 2024; Ruckdeschel 2024; van Wijk and Billari 2024; Vignoli et al. 2020). Yet no consensus has emerged on the dominant causes.

The Second Demographic Transition revisited

By contrast, the role of ideational factors has received less systematic attention. The SDT offers the most prominent framework for linking values to fertility change, describing a fundamental reorientation of family dynamics across the developed world driven by shifting attitudes and value priorities (Lesthaeghe 2014; Sobotka 2008; van de Kaa 2001). Drawing on Maslow (1943) and Inglehart (1971), SDT scholars view these shifts as a cohort phenomenon, rooted in the higher material security experienced during

early life in post-WWII Western societies. Economic development and educational expansion are argued to have reduced the salience of basic survival and material needs for younger cohorts, fostering postmaterialist values centered on self-expression (van de Kaa 2001; Zaidi and Morgan 2017). In this account, rising secularism, progressive politics, egalitarianism, tolerance for nontraditional ethics, individualism, and the prioritization of relationship quality over traditional marital norms emerged as defining orientations (Surkyn and Lesthaeghe 2004, 51–52). These ideational shifts facilitated nonconventional family formation and new fertility behaviors—such as increased contraceptive use, postponement of first births, and extramarital childbearing—that gradually gained widespread acceptance (Lesthaeghe 2010). Diffusion was typically argued to occur through a top-down process, primarily via education: the higher-educated first adopted the new values and behaviors, which subsequently spread to the broader population.

While the ideational framework of the SDT has generally been more successful in explaining changes in union formation and dissolution than changes in fertility (Lesthaeghe and López-Gay 2013), there are indications to suggest that contemporary fertility declines may reflect an ideational shift. In contemporary fertility regimes characterized by widespread control and planning, childbearing is generally voluntary, and having children is thus preconditioned on a desire for children. Though such desires may be unrealized due to structural constraints, declining fertility rates may also be explained by a change in these desires themselves. Indeed, across the Western world, an increasing proportion of young people seem to report desires and intentions to remain childless (Golovina et al. 2024; Hartnett and Gemmill 2020; Lai, Neyer and Andersson 2026), possibly indicating that the new fertility trends are driven by conscious and voluntary decisions to (temporarily) forego parenthood. Thus, many individuals in younger cohorts may simply desire a life without children; a life without the obligations and responsibilities that childbearing involves.¹

At the same time, fertility desires are not formed in isolation but are shaped by present circumstances and future expectations and thus remain closely tied to individuals' structural conditions and opportunities (Vignoli et al. 2020). Further, delays in childbearing often seem to reflect ambivalences regarding the future, rather than long-term plan-making (Beaujouan 2023). Shifts in fertility desires may therefore reflect economic considerations as much as changes in underlying motivations or aspirations. For that reason, the influence of ideational factors cannot be reduced to stated fertility desires but should be understood in relation to the broader system of life goals and priorities—that is, values—that underlie decisions about childbearing.

Following this line of reasoning, there are reasons to expect that recent changes in childbearing behavior may be tied to wider cultural

dynamics in contemporary societies. It is telling that the sharpest declines have occurred in Western Europe—a region long characterized by strong self-expression values and democratic institutions that reinforce individual choice, in contrast to the more materialist outlooks of Eastern Europe (Inglehart and Welzel 2001; Lesthaeghe and Zeman 2024). Furthermore, the rise of social media has created new pathways for the diffusion of values and collective narratives, particularly among youth (Boyd 2014). The emerging social media cultures and platforms have further emphasized ideals of authentic self-expression and conspicuous consumption, potentially fostering hedonistic and individualist orientations (Baym and Boyd 2012; Taylor 2022). On the other hand, other developments may complicate the view of a linear development toward postmaterialist orientations, especially following the Great Recession. The rise of globalization, protracted labor market deregulation, and economic uncertainty may reinforce materialist values, leading individuals to desire security and stability during periods of hardship (Guetto, Luijkx and Scherer 2015; Mills and Blossfeld 2003).

Reconsidering values in the SDT

While the SDT offers a compelling framework for understanding contemporary fertility postponement, recent trends may therefore raise questions about whether its underlying value shifts have continued. The ideational components of the SDT have also been difficult to establish at the micro level. Although some studies have found negative associations between postmaterialist values and family formation (Moors 2008; Surkyn and Lesthaeghe 2004), the evidence remains limited (see Zaidi and Morgan 2017). Many studies focus on single cultural indicators, such as religiosity, reflecting only a limited subset of the relevant value dimensions, or use postmaterialist indices that have been criticized for failing to distinguish between fundamentally different value positions and that have generally proven difficult to validate (Brooks and Manza 1994; Davis and Davenport 1999; Smallenbroek 2023; Zaidi and Morgan 2017).

Further, analyses of the SDT tend to conflate attitudes—which are more volatile and context-specific evaluations of objects as good or bad—with values, which are relatively stable, abstract motivational goals (Schwartz 2012; Smallenbroek 2023). This conflation risks endogeneity, as family-related attitudes are likely shaped by individuals' perceived possibilities for childbearing and the structural constraints influencing those possibilities. By focusing on broad, abstract values, we may more efficiently disentangle ideational components from structural components of contemporary fertility trends. In this respect, the theory of basic human values (Schwartz 1992) provides a strong framework, while also offering a way

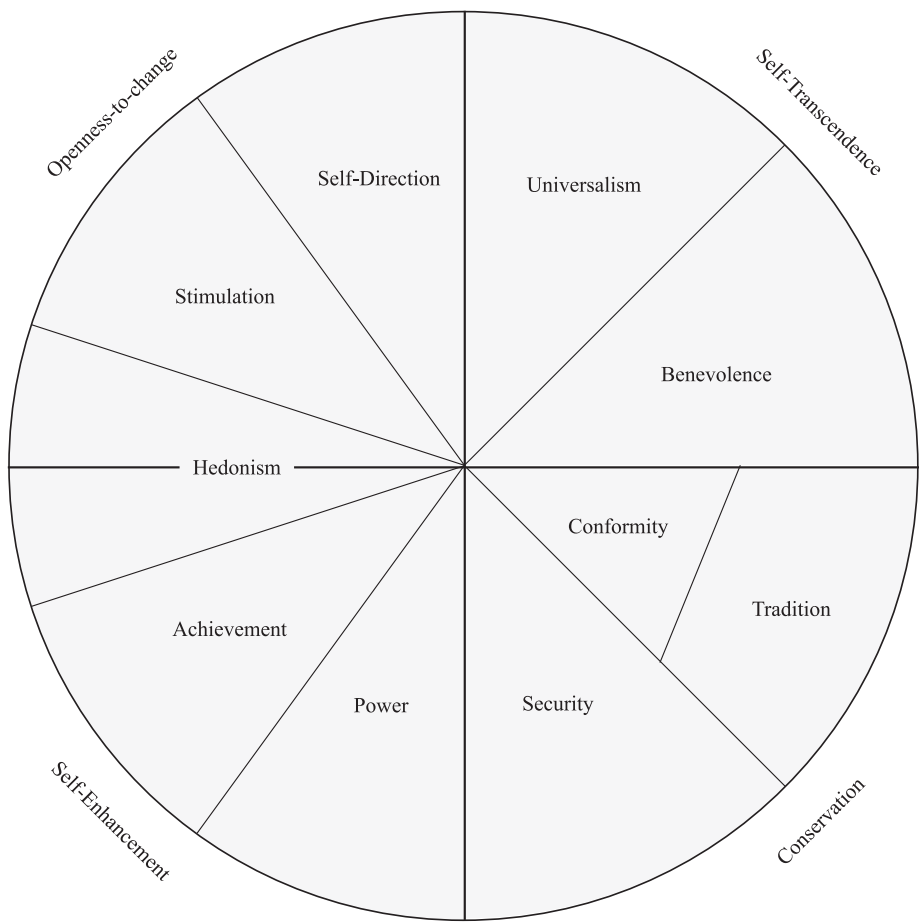
to operationalize the value shifts central to the SDT at the individual level (Smallenbroek 2023).

Unlike postmaterialist indices, the TBHV has been extensively validated cross-nationally (Schwartz and Bardi 2001; Schwartz and Boehnke 2004; Schwartz and Sagie 2000), and its dimensions consistently predict a wide range of behaviors, from political preferences to health practices (Nazirova and Simonovits 2024). Crucially, TBHV values are grounded in basic human needs—individual biological needs, the need to coordinate actions with others, and the collective need for group survival and welfare—that are conceptually exogenous to fertility behavior.

In the TBHV, values are defined as emotional beliefs that guide behavior, reflecting what individuals find important, motivating actions, and helping them to evaluate situations (Schwartz 2012). A basic value is postulated to be universally recognized and meaningfully distinguished. In its most common configuration, 10 such values are identified and organized into four higher-order categories—*openness-to-change*, *conservation*, *self-enhancement*, and *self-transcendence*—arranged in a circumplex according to the conflict or compatibility of their motivational goals (see Figure 1). Through this, micro-level value orientations can be directly connected to the macro-level framework of the SDT: *Openness-to-change* corresponds to postmaterialist orientations emphasizing autonomy, independence, pleasure, and novelty, while *conservation* aligns with materialist orientations emphasizing security, stability, and adherence to traditional life courses.² Empirical research supports the behavioral relevance of these dimensions: Openness-to-change is associated with a higher risk of cohabitation, while conservation is associated with a lower risk (Smallenbroek 2023). With regard to fertility, mothers tend to place more importance on conservation values than non-mothers, although this difference may partly reflect value shifts following childbearing (Lönnqvist, Leikas and Verkasalo 2018). Furthermore, a stronger emphasis on openness-to-change values has been linked to a higher ideal age for parenthood among women (Her and Chen 2026).

However, individual-level associations are insufficient to demonstrate macro-level causation and evidence of population-level value change remains mixed. Using longitudinal data for the Netherlands, Leijen, Van Herk and Bardi (2022) found an increasing importance of hedonism across generations, which has been suggested to possibly be of importance for contemporary fertility postponement (Lesthaeghe and Zeman 2024) and tied to postponement at the individual level (Her and Chen 2026). European cross-sectional studies additionally suggest a small shift from conservation to openness-to-change values (Mentus 2024), but this pattern may not hold among younger cohorts at risk of childbearing after the Great Recession (Sortheix et al. 2019).

FIGURE 1 Model of basic human values.



SOURCE: Adapted from Schwartz (1992)

Analytical framework and hypotheses

Building on this framework, this study examines whether changing value orientations may contribute to recent fertility decline at the population level. It tests a set of necessary—but not sufficient—conditions for values to be a root cause of the decline. Rather than estimating causal effects, our aim is to evaluate whether the observed associations are consistent with value change as a plausible explanation for contemporary fertility decline. Specifically, whether values have changed in ways to facilitate fertility decline. In addition, the study examines a related but distinct mechanism: whether the behavioral salience of values has changed over time, such that value orientations have become more consequential for fertility behavior.

Given the evidence that recent declines are driven primarily by delayed or foregone entry into parenthood, the analysis focuses on the relationship between entering motherhood and the higher-order values of openness-to-change and conservation. If value change is driving the delay in entries into motherhood, increases in the proportion of women who have not yet had a child should coincide with population-level shifts in values. This leads to the *value shift hypothesis*:

H1. *Among women of childbearing ages, openness-to-change values have increased in relative importance compared to conservation values as childbearing has declined.*

Further, the relevance of values for fertility behavior may have increased even if values have remained stable at the population level. In this sense, values may have a selective role in contemporary fertility declines by moderating the effects of other structural or cultural changes. For example, the possible emergence of intensive parenting norms and increasing perceived costs of childrearing may deter those who prioritize open futures more than those who prefer traditional life-courses (Gauthier, Smeeding and Furstenberg 2004; Kornrich and Furstenberg 2013; Sayer, Bianchi and Robinson 2004). Similarly, a weakening of pro-fertility norms and growing acceptance of childfree lifestyles may have enabled those who prefer not to have children to realize those preferences more readily—thus increasing the selective effect of values on childbearing. This leads to the *value salience hypothesis*:

H2. *Over time, the associations between the higher-order values and not having had a child have become stronger.*

Complementing the value shift hypothesis, the value salience hypothesis examines an alternative mechanism through which values may shape patterns of fertility postponement. Rather than examining whether value shifts themselves underlie delayed childbearing, it considers that value orientations may gain or lose behavioral importance depending on broader contextual developments. In this sense, evidence in support of the hypothesis would not imply that values are the root cause of fertility postponement, but that they matter contextually through their interaction with other social or structural changes.

Changes in the behavioral relevance of values may also provide insight into the macro-level consequences of value shifts. Most importantly, the demographic effects of an observed value shift will depend on whether values remain behaviorally relevant for entering motherhood and whether this association is stable or increasing over time. If the relative importance of openness-to-change values has risen but the associations with having children have weakened toward zero, the potential effects of a value shift are counteracted by decreased selectivity of values, making the aggregate

TABLE 1 Description of the sample selection (ESS rounds 1–10)

Sample criteria	Dropped observations	Remaining observations
Total sample		490,555
Resident in Western Europe	195,685	294,870
Woman	140,371	154,499
Native-born	16,176	138,323
Age: No missing data	855	137,468
Aged 20–39	85,900	37,581
Children: No missing data	39	37,542
Values: No missing data	3,900	33,642
Analytic sample		33,642

effects of the value shift small and a value-based explanation unlikely. In this sense, the motivation for the value salience hypothesis is twofold: first, to test whether value-based selectivity contributes to fertility postponement and, second, to provide additional empirical insight into the macro-level consequences of shifting values.

Data and methods

Data

The study uses data from the repeated cross-sectional ESS (European Social Survey European Research Infrastructure 2012, 2018, 2023a, 2023b, 2023c, 2023d, 2023e, 2023f, 2025a, 2025b). Since its inception, the ESS has included a consistent, comprehensive set of items measuring Schwartz’s basic human values, making it ideal for examining values over time. Data from rounds 1 to 10 (2002–2022) were used.

The analytic sample consists of nonmigrant women aged 20–39 residing in Western European countries.³ Foreign-born individuals were excluded to reduce the risk of confounding, as migrant households in the European Union are more likely to include children (Eurostat 2024), and foreign-born populations may differ from native-born populations in their value orientations. Moreover, the proportion and composition of migrants changed over the study period. Respondents missing data on children in the household or any value indicators were also excluded from the analysis.

In Table 1, the criteria for sample selection and corresponding omissions are shown.

Dependent variable

The main dependent variable is a binary indicator of *not yet having had a child*. Since the ESS does not consistently include data on births, this is proxied using information on the presence (and former presence) of children in the household (see Brini 2020). In waves where data on births are available, this

proxy aligns closely with that information: 99.4 percent of respondents who had ever given birth were classified as having had a child, and 96.7 percent of those who had not given birth were classified as not yet having had a child. Across the sample, 49 percent had not had children: 75.8 percent among women aged 20–29 and 27.9 percent among women aged 30–39.

Independent variables

The main independent variables are the higher-order value scores for openness-to-change and conservation. In the ESS, basic human values are measured through 21 items, each asking respondents how similar they are to a described person with specific motivational goals on a scale from 1 (low similarity) to 6 (high similarity).⁴ Of these, 12 items are linked to the values analyzed in this study (see Table 2). To adjust for individual response styles—since some respondents tend to agree or disagree with all items—we followed the standard procedure of centering each item on the respondent's mean rating across all 21 items (the “common factor”). This procedure yields a relative ranking of values, emphasizing the priority given to one value compared to others (Rudnev 2021; Schwartz 2012). Thus, this study focuses on *value priorities*—the individual-level preference given to one value in relation to all others—in line with the TBHV's focus on the structure of individuals' values. Note that conclusions were substantively unchanged when raw (non-centered) scores were used.

Basic value scores are calculated as the mean of the centered items associated with each value, and higher-order values are constructed as the mean of their constituent basic values (see Figure 2 for an overview of the procedure).

The theoretical range of the higher-order value scores is approximately -3.6 to 3.6 . In practice, the measures are roughly normally distributed, with means of 0.02 ($SD = 0.56$) for openness-to-change and -0.15 ($SD = 0.59$) for conservation. The observed ranges for both higher-order value scores are about -2.9 to 2.4 . For the basic value scores, the theoretical range is approximately -4.5 to 4.5 , with observed SDs between 0.73 and 0.94 .

In addition to the value measures, the analysis includes a set of covariates used in the regression models described in the following section. Period is captured by a categorical variable, with each period covering two rounds of the ESS (four to five years). Age is measured as a continuous variable. Education is measured as the highest completed level (lower secondary or less, upper secondary, tertiary, and missing). Country fixed effects are included to account for differences in national contexts that may influence both value orientations and fertility behavior.

For analyses of heterogeneity, countries are grouped into macro-regions: the Nordic countries (Sweden, Denmark, Norway, Finland, and Iceland), German-speaking countries (Germany, Switzerland, and Austria),

TABLE 2 Composition of higher-order values from basic values and corresponding value items

Higher-order value	Basic value	Value item
Openness-to-change	Hedonism	Having a good time is important to her. She likes to “spoil” herself. She seeks every chance she can to have fun. It is important to her to do things that give her pleasure.
	Stimulation	She likes surprises and is always looking for new things to do. She thinks it is important to do lots of different things in life. She looks for adventures and likes to take risks. She wants to have an exciting life.
	Self-direction	Thinking up new ideas and being creative is important to her. She likes to do things in her own original way. It is important to her to make her own decisions about what she does. She likes to be free and not depend on others.
Conservation	Security	It is important to her to live in secure surroundings. She avoids anything that might endanger her safety. It is important to her that the government ensures her safety against all threats. She wants the state to be strong so it can defend its citizens.
	Tradition	It is important to her to be humble and modest. She tries not to draw attention to herself. Tradition is important to her. She tries to follow the customs handed down by her religion or her family.
	Conformity	She believes that people should do what they’re told. She thinks people should follow rules at all times, even when no one is watching. It is important to her always to behave properly. She wants to avoid doing anything people would say is wrong.

NOTE: The questions (for a female respondent) from which the basic and higher-order values under study are constructed.

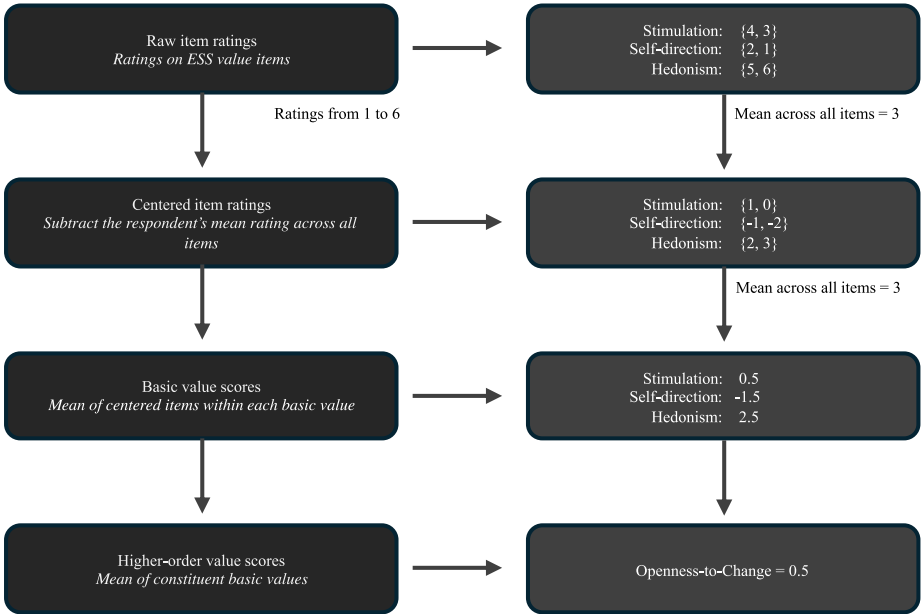
Southern European countries (Italy, Spain, Portugal, and Greece), and Western Atlantic European countries (France, Belgium, the Netherlands, the United Kingdom, and Ireland).

Full summary statistics are reported in Table T1 in the Online Appendix.

Analytic strategy

The analysis examines associations between value orientations and not having children at both the aggregate and individual levels. Because values and

FIGURE 2 Stepwise procedure for constructing value scores



NOTE: The left-hand side displays the calculation steps, while the right-hand side illustrates the construction of the higher-order value openness-to-change from the basic values stimulation, self-direction, and hedonism. Curly brackets indicate the ratings for the items associated with each value. The mean rating refers to the respondent's average rating across all 21 value items in the European Social Survey.

fertility dynamics vary across stages of the life-course, all analyses examine women at traditional postponement ages (20–29) separately from women at ages of recuperation (30–39). The analysis proceeds in three steps, each using a different model specification.

First, we examine whether changes in value orientations coincide with changes in childbearing over time. To do so, we estimate period trends in both higher-order value scores and the prevalence of women who have not yet had a child. These trends are obtained from linear regression models including country fixed effects, allowing us to estimate average within-country changes across survey rounds and ensuring that observed trends are not driven by differences in country composition across ESS rounds.

$$Y_{itc} = \alpha + \beta_1 \text{Period}_t + \beta_2 \text{Country}_c + \varepsilon_{itc}, \quad (1)$$

where Y_{itc} represents either higher-order value scores or the probability of not having had a child for a woman i from country c interviewed in period t . To further explore heterogeneity, these trends are also estimated separately across regions and educational groups. In addition to higher-order values, the same models are used to estimate period trends for the constituent basic values in order to provide a more fine-grained picture of value change.

Second, we estimate whether value priorities are associated with motherhood at the individual level. To do so, we estimate logistic regression models predicting the association between the higher-order values (as well as the constituent basic values) and not having had a child. These models additionally adjusted for period, country, age, education, and an age-by-education interaction:

$$\begin{aligned} \text{logit}(p_{itc}) = & \alpha + \beta_1 \text{Value}_{itc} + \beta_2 \text{Period}_t + \beta_3 \text{Country}_c + \beta_4 \text{Age}_{itc} \\ & + \beta_5 \text{Education}_{itc} + \beta_6 (\text{Age}_{itc} \times \text{Education}_{itc}) + \varepsilon_{itc}, \end{aligned} \quad (2)$$

where p_{itc} is the probability of not having had a child for a woman i from country c interviewed in period t . Models are estimated for the full sample and separated by region. As the within-individual centering of the value scores introduces autocorrelation between value scores, separate models are fitted for each value. Results are displayed in tables of average marginal effects.

Third, we examine whether the association between values and motherhood has changed over time by interacting higher-order value scores with survey periods in the prior logistic regression model (see Equation 3). Through this, we can test the value salience hypothesis, namely whether the relationship between value orientations and motherhood has strengthened over time. The models interacting value scores with survey periods are estimated for the full sample and separately across regions.

$$\begin{aligned} \text{logit}(p_{itc}) = & \alpha + \beta_1 \text{Value}_{itc} + \beta_2 \text{Period}_t + \beta_3 (\text{Value}_{itc} \times \text{Period}_t) \\ & + \beta_4 \text{Country}_c + \beta_5 \text{Age}_{itc} + \beta_6 \text{Education}_{itc} \\ & + \beta_7 (\text{Age}_{itc} \times \text{Education}_{itc}) + \varepsilon_{itc}. \end{aligned} \quad (3)$$

Given the nested structure of the data, standard errors are clustered at the country level to account for potential intra-country correlation when estimating individual-level associations. All analyses are weighted to account for unequal inclusion probabilities and nonresponse using the weights provided by the ESS.

As both the presence of children in the household and values are measured at the time of interview, the temporal ordering between values and fertility behavior cannot be established, complicating causal inference. This raises concerns about the interpretation of the observed associations, as they may partly reflect value changes following entry into motherhood. Although prior research has generally found that value orientations are relatively stable over early adulthood (Vecchione et al. 2016), there is evidence that conservation values tend to increase with age (Smallenbroek et al. 2023) and in response to motherhood (Lönngqvist, Leikas and Verkasalo 2018).

To address this concern, additional models examine (i) recent births, that is, those occurring closer to the time of interview (within four years), where the scope for post-birth value change is more limited, and (ii) short-term fertility intentions, the strongest available proxy for future childbearing behavior (Dommermuth, Klobas and Lappegård 2011, 2015; Régnier-Loilier, Vignoli and Dutreuilh 2011). These results are presented in the last section of the results.

Further, the analysis is replicated with a measure of religiosity replacing value scores, to examine whether the results are corroborated when examining another key cultural dimension of the SDT.

Results

Time trends in values and the prevalence of women without children

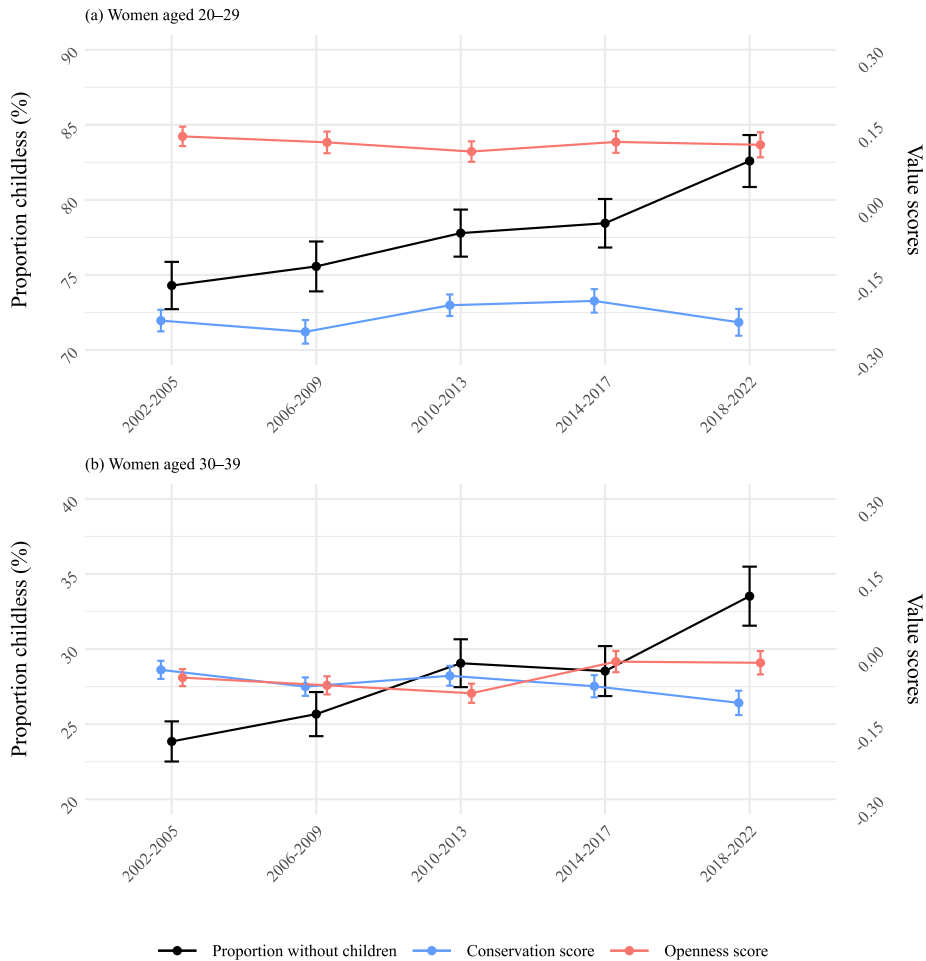
We first test the value shift hypothesis by examining changes in value orientations over the study period. Results are displayed in Figure 3.

Among women aged 20–29, the proportion of women who have not yet entered motherhood has increased steadily over time. Between 2002 and 2005, approximately 74 percent were estimated to be without children, compared to 83 percent in the period 2018–2022. Contrary to the value shift hypothesis, there was, however, no clear shift toward openness-to-change, with average value scores remaining largely stable over the period. For women aged 20–29, the increasing levels of women not yet having had a child do not therefore coincide with any clear value shift across Western European countries.

Among women aged 30–39, the proportion of women who had not entered motherhood similarly rose from about 24 percent to 34 percent over the study period, while both higher-order value scores stayed relatively stable. Though there was some decline in the average conservation score, the magnitude of this change was small, amounting to less than 0.1 points—compared to an observed range of 5.3 points. Thus, the evidence indicates that the value shift hypothesis does not hold among women aged 30–39 either and that the increasing prevalence of women without children does not coincide with a broad value shift.⁵

Overall, these findings, therefore, indicate that recent fertility delays have not been accompanied by broad shifts in value orientations among women of childbearing age across Western European countries. Turning to regional heterogeneity, we further find no evidence in support of the value shift hypothesis for the Nordic, Western Atlantic, or German-speaking countries (where we rather observe a small tendency toward stronger conservation values among women aged 20–29), despite an increasing prevalence of women without children in all regions (see Figure 4). Southern Europe is partly an exception, as it does display a moderate shift toward

FIGURE 3 Prevalence of women who have not yet had a child and population-average value scores



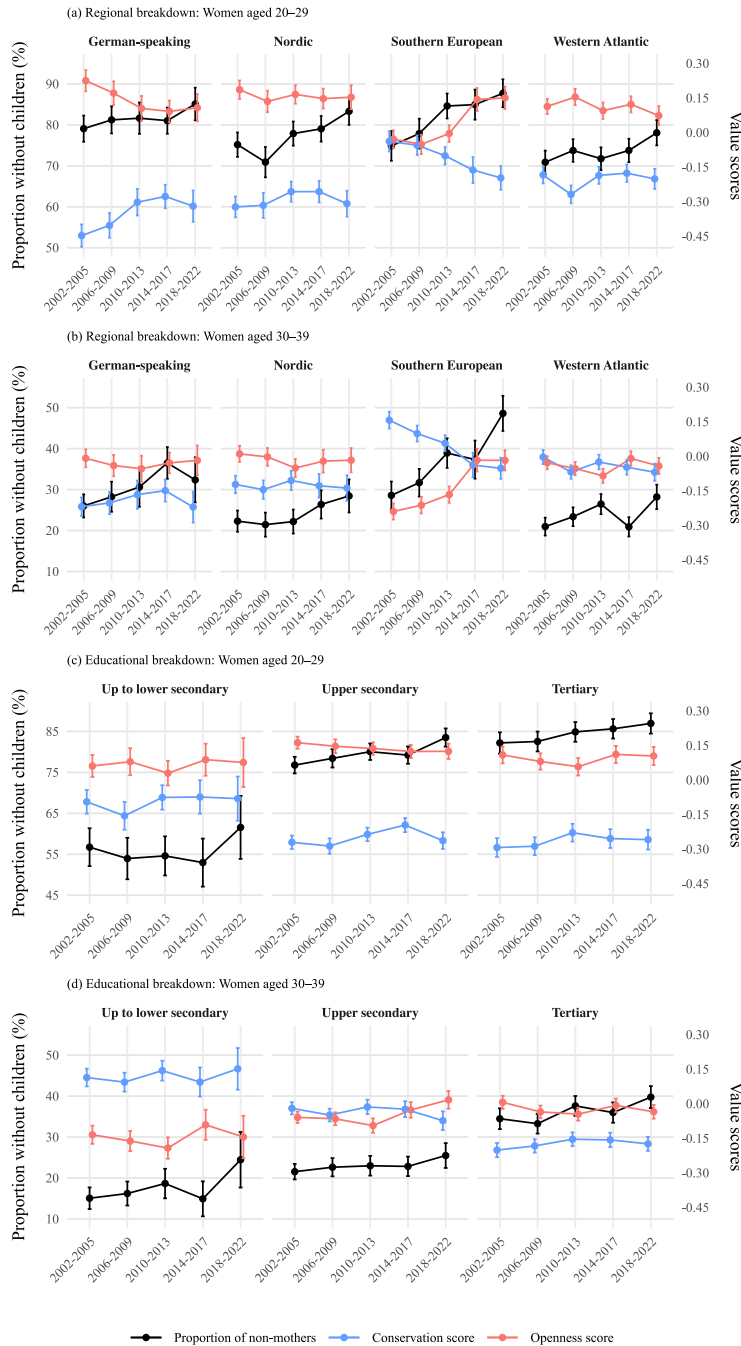
NOTE: Estimates include country fixed effects only (see Equation 1) and are weighted for sample inclusion probability and nonresponse.

SOURCE: Data from the European Social Survey (1–10); calculations by authors.

openness-to-change across both age groups—with an overall increase in openness-to-change of 0.18 and 0.22 points and a decrease in conservation of 0.16 and 0.21 points for women aged 20–29 and 30–39, respectively. In this case, the value shift hypothesis seems to hold, and the increasing prevalence of women having not had a child is consistent with a continued diffusion of SDT-related values.

In conclusion, the value shift hypothesis is therefore not corroborated, and no evidence is found in support of a value shift coinciding with the increasing prevalence of women without children, except in the case of Southern Europe. The analysis of heterogeneity across levels of

FIGURE 4 Prevalence of women who have not yet had a child and population-average value scores by region and educational category



NOTE: Estimates include country fixed effects only (see Equation 1) and are weighted for sample inclusion probability and nonresponse.
SOURCE: Data from the European Social Survey (1–10); calculations by authors.

education provides further contextual support: although value orientations differ systematically by education—higher education being associated with greater openness-to-change and lower conservation in line with SDT expectations—these values remain stable over time for all educational groups. Meanwhile, trends in the prevalence of women without children are relatively muted within educational groups compared to the overall rise, suggesting that educational expansion itself may be an important component of the increases in Western Europe. Crucially, however, this expansion does not appear to be linked to any processes of value change. Moreover, the strongest increase in the prevalence of non-mothers is observed among women aged 30–39 with low education, the group most strongly emphasizing conservation values. Such a pattern is difficult to reconcile with a value-change explanation, since fertility appears to be delaying the most where values have remained most traditional.

Association between not yet having children and values

Having established that aggregate value orientations have remained largely stable over time, we next examine their relevance for individual fertility behavior by testing whether they are associated with not having entered motherhood. The results are clear: Mothers tend to place more importance on conservation values than non-mothers, while non-mothers place more importance on openness-to-change (see Table 3).

Among women aged 20–29, a one-point increase in the conservation score (approximately 1.7 standard deviations) is associated with a 9-percentage-point lower probability of not having had a child. Comparing women at the 5th and 95th percentiles of the conservation score, the probability gap is 17 percentage points (85 percent vs. 68 percent)—indicating a strong negative relationship between conservation values and the propensity of not having children. The model using the openness-to-change score shows an inverse relationship, and all constituent basic values are associated with not having had a child in the expected directions—that is, consistent with the higher-order values that they constitute.

The results for women aged 30–39 show even more pronounced associations, with an average marginal effect of 0.11 for openness-to-change, and a corresponding probability gap of 21 percentage points (18 percent vs. 39 percent) between the 5th and 95th percentiles.

These associations are consistent across regions (though particularly pronounced in the Nordic countries), with higher-order values strongly linked to not having had a child and associations with basic values aligning in the expected directions. This cross-regional consistency suggests that the studied value dimensions are relevant across institutional and cultural contexts, providing a strong indication that these value dimensions capture ideational orientations relevant for fertility behavior. However, because

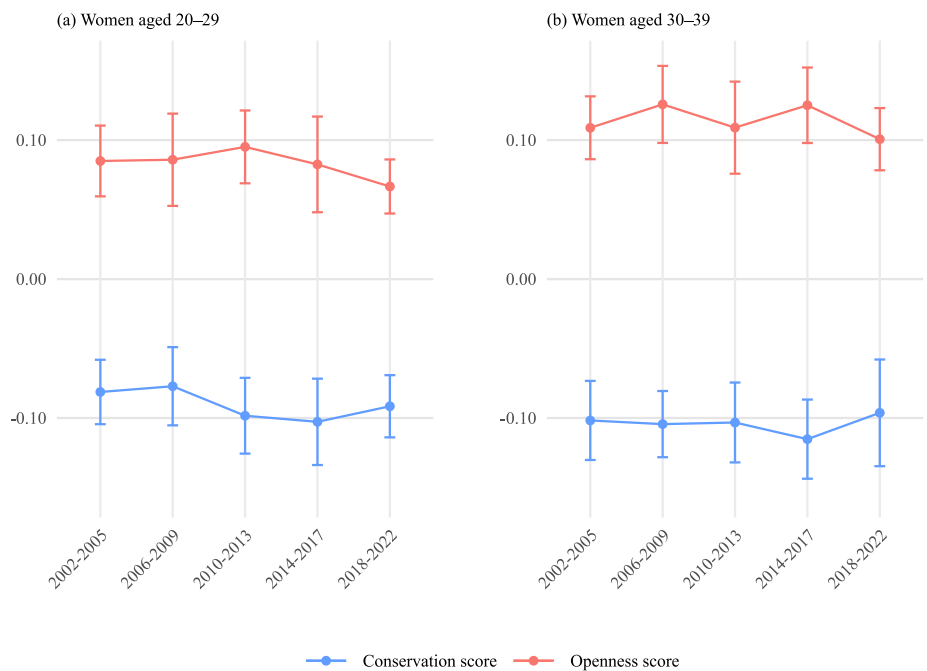
TABLE 3 Average marginal effects of value scores on the probability of not yet having had a child

	Total	Nordic	German-speaking	Atlantic	Southern
(a) Women aged 20–29					
Openness	0.083 (0.007)	0.103 (0.017)	0.055 (0.006)	0.082 (0.011)	0.089 (0.014)
Hedonism	0.046 (0.004)	0.032 (0.008)	0.030 (0.004)	0.057 (0.001)	0.059 (0.005)
Self-direction	0.027 (0.006)	0.052 (0.013)	0.016 (0.005)	0.021 (0.010)	0.007 (0.005)
Stimulation	0.034 (0.005)	0.049 (0.006)	0.029 (0.008)	0.025 (0.009)	0.034 (0.012)
Conservation	−0.089 (0.008)	−0.104 (0.016)	−0.077 (0.014)	−0.093 (0.013)	−0.067 (0.026)
Tradition	−0.036 (0.006)	−0.049 (0.007)	−0.043 (0.008)	−0.027 (0.012)	−0.028 (0.016)
Conformity	−0.020 (0.004)	−0.025 (0.012)	−0.012 (0.002)	−0.025 (0.006)	−0.007 (0.008)
Security	−0.066 (0.006)	−0.081 (0.009)	−0.054 (0.012)	−0.072 (0.013)	−0.051 (0.007)
(b) Women aged 30–39					
Openness	0.114 (0.009)	0.141 (0.007)	0.107 (0.005)	0.097 (0.016)	0.107 (0.017)
Hedonism	0.051 (0.005)	0.064 (0.005)	0.038 (0.017)	0.054 (0.007)	0.044 (0.003)
Self-direction	0.046 (0.007)	0.074 (0.009)	0.043 (0.002)	0.022 (0.009)	0.043 (0.010)
Stimulation	0.051 (0.004)	0.054 (0.004)	0.063 (0.007)	0.042 (0.006)	0.045 (0.016)
Conservation	−0.104 (0.009)	−0.116 (0.012)	−0.113 (0.002)	−0.091 (0.023)	−0.094 (0.009)
Tradition	−0.057 (0.006)	−0.075 (0.008)	−0.072 (0.007)	−0.037 (0.012)	−0.053 (0.008)
Conformity	−0.025 (0.005)	−0.030 (0.012)	−0.022 (0.003)	−0.026 (0.010)	−0.012 (0.010)
Security	−0.060 (0.005)	−0.061 (0.004)	−0.069 (0.007)	−0.056 (0.010)	−0.056 (0.012)

NOTE: Models control for age, country, period, education, and the product-term age × education (see Equation 2). Standard errors in parentheses. Weights adjusted for sample inclusion probability and nonresponse.

SOURCE: Data from the European Social Survey (1–10); calculations by authors.

FIGURE 5 Average marginal effects of value scores on the probability of not yet having had a child over time



NOTE: Models control for age, country, education, and the product-term age $\times$ education, with the value scores interacted with period (see Equation 3). Weights adjusted for sample inclusion probability and nonresponse.
SOURCE: Data from the European Social Survey (1-10); calculations by authors.

these values have not changed over time, they cannot account for the rising prevalence of women who have not yet had children and declining fertility. The exception is Southern Europe, where we find both strong associations and clear shifts in values over time—suggesting that values may indeed play an important role in the increasing postponement of childbearing in this region.

Value-based selection into motherhood over time

We now turn to the value salience hypothesis, which proposes that the relationship between value orientations and not yet having had a child has grown stronger over time. This would be reflected in a stronger positive association between not having had a child and openness-to-change, and a stronger negative association between not having had a child and conservation, to indicate an increasing value-based selection into motherhood. The results shown in Figure 5 provide little evidence for such a shift. On the contrary, the associations have remained stable over time across both age groups, suggesting that the relevance of the higher-order values for not

having had a child has not increased across Western European countries over time.

When examining regional heterogeneity, the association remains stable for the Nordic countries, German-speaking countries, and Western Atlantic countries (see Figure 6). Across these regions, the combined findings do not suggest either a change in values or in the relevance of values for selection into motherhood over time, despite strong individual-level associations and an increasing prevalence of women without children.

Southern Europe presents a more complex case. Here, the association between selection into motherhood and openness-to-change weakens over time among women aged 20–29, while the association with conservation weakens among women aged 30–39. These results not only contradict the value salience hypothesis but also cast doubt on whether the observed value shifts in Southern Europe are relevant for fertility postponement, as their potential effects may be nullified by the diminished salience of values.

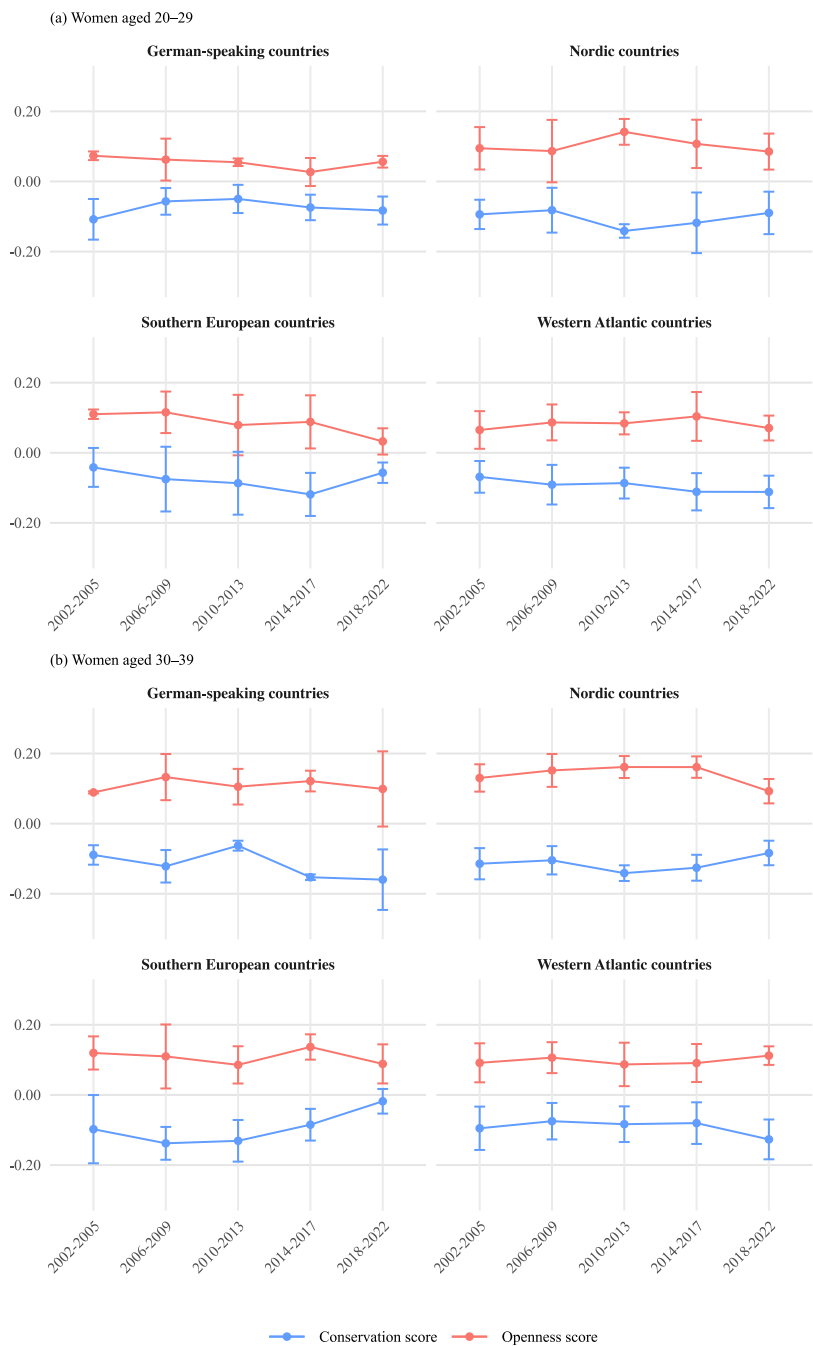
Alternative fertility and value measures

Because both the absence of children and values are measured at the time of interview, the analysis assumes that values remain relatively stable over the life course. This is generally supported by earlier research, which has found value priorities to display similar levels of stability as personality traits over early adulthood (Vecchione et al. 2016). However, conservation values may generally show small increases with age (Smallenbroek et al. 2023), which could possibly bias the association between parenthood and conservation values upward. Some of this change may also reflect value responses to the transition to motherhood, which has been linked to a stronger emphasis on conservation values (Lönnqvist, Leikas and Verkasalo 2018). In the present context, however, such responses are unlikely to affect the main findings regarding aggregate value stability and the absence of increasing value salience.

If motherhood increases the importance of conservation values, declining fertility should lead to a population-level shift toward openness-to-change as the share of mothers decreases. The absence of such a shift suggests that strong motherhood-induced value changes are unlikely. Moreover, even if such value responses were substantial, they would imply a bias toward observing a shift toward openness-to-change values over time. The absence of such a pattern therefore strengthens, rather than weakens, the conclusion that there has been no exogenous value shift driving the fertility decline. Similarly, the second finding—that the salience of values has not increased over time—does not appear readily explained by individual changes in values following motherhood.

Nonetheless, reverse causality may still substantially affect the magnitude of the associations. Therefore, we also conducted additional analysis to

FIGURE 6 Average marginal effects of value scores on the probability of not yet having had a child by region



NOTE: Models control for age, country, education, and the product-term age $\times$ education, with the value scores interacted with period (see Equation 3). Weights adjusted for sample inclusion probability and nonresponse.
SOURCE: Data from the European Social Survey (1–10); calculations by authors.

assess whether the associations hold across fertility measures less affected by value responses to motherhood. While ESS data do not allow us to link values to subsequent fertility behavior directly, rounds 2 and 5 include questions on fertility intentions. Using these data, we reestimated the models of cross-sectional associations using a binary measure of short-term fertility intentions as the outcome, pooling all age groups, and controlling for parity at the time of interview. The results show strong associations between fertility intentions and the higher-order values in the expected directions (see Table T2 in the Online Appendix). As values are expected to affect behavior through intentions, this supports the interpretation that the values investigated capture ideational aspects relevant to childbearing.

Additionally, we estimated models using recent birth (defined as having had a child within four years prior to the interview) as the outcome variable, pooling all age groups and controlling for parity four years prior to the interview. As values are in this case measured closer to the timing of birth, the potential for post-birth changes in values to influence the observed association is reduced. This measure may also be more sensitive to changes in the salience of values over time than ever having had a child, as it reflects decisions closer in time to the interview. For example, if the salience of values shifted after 2010, many mothers in the sample would still have entered parenthood before that point—even in later periods—and would therefore reflect an earlier context of selection.

Nonetheless, the results show that recent births are strongly associated with higher-order values, and that these associations have not changed over time, consistent with the study's main findings (see Figure A2 in the Online Appendix). Taken together, the consistent associations for fertility intentions and recent births, which capture behavior closer to the time of measurement in complementary ways, align with the main findings and suggest that the observed relationships are unlikely to be strongly driven by reverse causality.

Given the relevance of religiosity in prior research on SDT-related fertility declines, and its conceptual overlap with the studied value dimensions, we further examined whether changes in religiosity provided a better explanation than the value dimensions analyzed above. Religiosity was measured on a 0–10 scale, based on a direct self-assessment of how religious respondents are. ESS data indicate that religiosity among women of childbearing age has declined over the study period (see Figure A3 in the Online Appendix). However, among women aged 20–29 the association with fertility outcomes is weak—and disappears once conservation scores are controlled for—while among women aged 30–39 the association diminishes over time, suggesting a reduced relevance of religiosity for selection into parenthood (see Figure A4 in the Online Appendix).⁶

Although it has not always been clear whether religiosity influences childbearing independently of value orientations, these findings suggest

that its effect is at best weak beyond its overlap with higher-order values. Increased secularization, therefore, is unlikely to affect fertility postponement in the absence of broader shifts in values.

Discussion

Though broad shifts in values have been increasingly invoked to explain the puzzle of the new wave of fertility postponement (Kearney and Levine 2026; Lesthaeghe and Zeman 2024), few studies have subjected this explanation to rigorous empirical testing. This study addressed that gap by integrating Schwartz's theory of basic human values with the SDT framework. Our analysis found consistent and strong associations between the higher-order values of openness-to-change/conservation and the likelihood of not having had a child, demonstrating the usefulness of the TBHV in fertility research and corroborating earlier studies indicating links between delayed fertility and basic values at the individual level (Her and Chen 2026).

However, higher-order values remained stable over the study period, while the prevalence of women who had not had a child increased substantially, providing little support for the value shift hypothesis. Likewise, the value salience hypothesis was not supported. If the effects of the drivers of postponement differed across value groups, we would expect changing associations between values and fertility over time; yet these associations remained largely stable. Together, these results suggest that although SDT-related values are relevant for individual fertility behavior, they are unlikely to be the primary driver of recent fertility postponement in Western Europe. At least, they do not offer a compelling explanation of the uniformity of fertility declines or their decoupling from objective economic conditions. Instead, other mechanisms may be more relevant for explaining recent delays in the transition into parenthood.

While the stability of values over time therefore suggests a limited role for value shifts in explaining recent postponement, it remains possible that other value dimensions beyond the higher-order values examined here are relevant. One point of consideration is the consistent decline in conformity over the study period; however, its relevance for fertility trends appears limited, as the associations between conformity and not having had a child are weak. More notably, prior research has highlighted cohort shifts in hedonism as a possible explanation of fertility decline (Lesthaeghe and Zeman 2024; see also Leijen, Van Herk and Bardi 2022). While the present study confirms that hedonism is associated with fertility delays at the individual level (consistent with Her and Chen 2026), we find no evidence of corresponding shifts in hedonism during the period of fertility postponement—either in the overall sample or across most regions (with the exception of Southern Europe).⁷ While our findings therefore suggest that changes in hedonism do not provide a convincing explanation for the recent wave of

postponement, it is possible that the gradual and multigenerational shifts observed by Leijen, Van Herk and Bardi (2022) are more relevant for the longer-term increases in mean ages at first birth observed since the 1970s. Similarly, it cannot be precluded that such cohort-based value shifts may become more important for future fertility trends.

Another ideational process often linked to postponement is secularization. The evidence here corroborates findings of declining religiosity across Western European countries. Yet the association between religiosity and not having had a child also weakened, suggesting secularization at best offers a partial explanation of contemporary postponement. Further, religiosity does not appear to offer much explanatory insight beyond the higher-order values studied, as its influence on fertility is largely attributable to its overlap with higher-order values. Overall, fertility-related selection processes appear to be more strongly grounded in values than in religiosity.

Beyond explanations based on value shifts, the value salience hypothesis sought to determine whether changes in value-based selection could be linked to delayed entry into motherhood, and whether values moderate the factors causing fertility postponement. Changes in pro-fertility norms, attitudes toward childlessness, and intensive parenting norms—potentially arising from long-term value shifts and the diffusion of new family behaviors—would arguably be expected to affect individuals favoring open lifestyles more than those favoring traditional life courses, thereby increasing the salience of values associated with having children. However, we did not observe an increasing salience of values over time, suggesting that the causes of postponement are not strongly moderated by higher-order values. In this regard, the findings extend beyond value-based explanations, indicating that delayed childbearing represents a generalized phenomenon across value orientations rather than one confined to those prioritizing open futures.

The generalized pattern of postponement is further reflected in the finding that the proportion of women who had not yet had a child increased most among those with lower levels of education—who, on average, hold more conservative values—a trend that cannot be attributed to a diffusion of openness-to-change values within this group. In this case, the reduced propensity to enter motherhood may be more closely linked to structural factors such as labor-market uncertainty or rising income prerequisites for childrearing. Moreover, the muted trends in entry into motherhood by level of education, together with the absence of value shifts both within educational groups and at the population level, do not support an SDT-type ideational mechanism; rather, they indicate that educational expansion has influenced fertility postponement through changes in life-course timing.

Beyond the general patterns observed for Western Europe as a whole, the results also reveal regional variation in how values and changes in the propensity to enter motherhood may be connected. Most notably,

Southern Europe showed a clear shift toward more openness-oriented values, potentially consistent with an SDT-like explanation of recent fertility declines. During the 21st century, these countries have also experienced a widespread diffusion of behaviors such as cohabitation and divorce, which are usually taken as evidence of SDT processes in the realm of partnership dynamics (e.g., Aassve et al. 2024). Nevertheless, the weakening associations between having entered motherhood and higher-order values indicate that, despite observable shifts in values, their role in fertility postponement in Southern Europe has become increasingly limited. Indeed, the rapid increase in women who have not yet had a child does not appear limited to individuals with specific value orientations but rather reflects a more generalized behavioral shift. Part of this may be linked to increases in education, in line with the analysis of educational heterogeneity and consistent with strong trends of educational expansion in Southern European countries in the 21st century (OECD 2022). In this regard, increases in education may have led to both increased postponement and an adoption of more open values—though at the same time diminishing the role of values for fertility.

Contrary to Southern Europe, the initial forerunners of the SDT in the Nordic and Western Atlantic countries display no clear changes in values during the analyzed period. In these countries, the continuing relevance of SDT-like processes is, at least in the context of fertility, unclear. While values continue to predict having entered motherhood at the individual level, the recent increase in postponement does not appear explainable by shifts in values at the population level or by changes in how values influence behavior. The stability of value orientations is particularly noteworthy in the Nordic context, where fertility declined sharply after 2010 despite broadly favorable economic conditions and continued comprehensive family policies. Under conditions where structural explanations appear the least convincing, one might expect ideational mechanisms to play a stronger role. Yet the absence of value change or increasing behavioral selectivity suggests that even in this context, recent postponement is unlikely to be ideationally driven.

In the German-speaking countries, we did observe clear increases in the prevalence of women who have not yet entered motherhood as well, despite less clear declines in fertility rates. Importantly, this rise does not coincide with a shift toward more open value orientations but rather with a tendency toward increasing emphasis on conservation values. Nor is there evidence of change in the selective function of values for childbearing. Taken together, these findings suggest that value orientations are of limited relevance for understanding the contemporary fertility postponement in this region as well.

Though the inability to capture values prior to childbearing for those who entered motherhood was an important limitation to this study, it is unlikely to affect the main findings regarding aggregate value stability and the

absence of increasing value salience. At the same time, this limitation may bias the estimated magnitude of the individual-level associations between values and motherhood. Conceptually, however, the priorities represented by higher-order values are expected to influence individuals' willingness to enter motherhood, implying that at least part of the observed association reflects this relationship. Consistent with this interpretation, robustness checks using fertility intentions and recent births suggest that the associations are unlikely to be primarily driven by changes in values induced by motherhood.

To conclude, although broad changes in cultural preferences and priorities are increasingly being invoked to explain the persistent wave of fertility postponement in Western Europe, we find limited evidence in support of this account in explaining recent fertility trends. At the same time, our findings are consistent with research emphasizing the importance of value priorities for postponement of fertility at the individual level, highlighting that ideational factors remain central to understanding childbearing decisions—even though they do not appear to provide a straightforward explanation for contemporary fertility declines. In this regard, the TBHV offers a valuable yet underutilized framework for understanding how value orientations shape childbearing behavior.

Acknowledgments

We thank the two anonymous reviewers for their constructive comments, which substantially improved the paper. Artificial intelligence tools were used for language editing and reference formatting; all substantive content was developed by the authors.

Open access publishing facilitated by Università degli Studi di Firenze, as part of the Wiley - CRUI-CARE agreement.

Data availability statement

The data supporting the findings of this study are publicly available from the European Social Survey upon free registration at <https://www.europeansocialsurvey.org>.

Notes

1 This is further supported by qualitative studies that highlight concerns about loss of freedom and competing priorities as important components of fertility decision-making (e.g., Bernardi, Mynarska and Rossier et al. 2015; Temmesen et al. 2024).

2 Beyond their conceptual overlap, conservation and openness-to-change have been shown to correlate with materialist and post-materialist orientations (Dobewall and Strack 2014).

3 Included countries are Austria, Belgium, Switzerland, Germany, Denmark, Spain, Finland, France, Great Britain, Greece,

Ireland, Iceland, Italy, the Netherlands, Norway, Portugal, and Sweden.

4 In the original ESS data, the scale is coded in the opposite direction. The items were reversed so that higher scores indicate greater similarity.

5 Examining trends in the constituent basic values suggests that the small decrease in conservation was driven by a decline in conformity. These changes were, however,

very marginal, with the conformity score being only 0.17 points lower in 2018–2022 compared to 2002–2005 (see Figure A1 in the Online Appendix).

6 And this is further emphasized when controlling for conservation scores.

7 See Figure A1 in the Online Appendix. Results for regional heterogeneity are available upon request.

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