

## **Self-Fulfilment and Fertility Intentions: The Interplay of Cultural Values and Expected Welfare State Support**

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### *Abstract*

*Sustained fertility decline in high-income societies increasingly reflects not just smaller family sizes but rising rates of childlessness. While economic uncertainty and institutional factors receive much attention, the role of value orientations and subjective motivations remains underexplored. This paper examines how the perceived self-fulfillment relevance of childbearing mediates the relationship between postmaterialist values and fertility intentions, and how this interplay is moderated by expectations of welfare-state childcare support. Drawing on the Rapporto Giovani 2022 survey across Italy, France, Germany, and Spain, we analyze a sample of childless adults aged 25-34. We first model the determinants of self-fulfillment valuation of parenthood by postmaterialism and welfare expectations. Next, we estimate a moderated mediation model - through generalized structural equation modelling with nonparametric bootstrap - to decompose the direct and indirect pathways linking values, perceived support, and fertility intentions. Our analysis reveals that welfare support may strengthen fertility intentions when it aligns with postmaterialist values by enhancing the meaning of parenthood, while in the absence of support the appeal of childbearing erodes. These findings underscore the importance of integrating motivational and institutional perspectives: policy effectiveness may depend not only on reducing structural constraints, but also on resonating with individuals' value systems.*

## Introduction

Over the past decade, many Western countries have experienced sustained fertility decline - even in nations with comprehensive family policies and relatively limited economic disruption, such as the Nordic countries. This decline reflects not only smaller family sizes but also, in some contexts, a growing share of individuals remaining childless (Neyer et al. 2022). Recent research suggests that in affluent societies, the diminishing perceived value of parenthood contributes to this trend (Guzzo & Hayford 2023). In parallel, an increasing proportion of younger generations report no desire to have children at all, a pattern documented across various settings (Golovina et al. 2024; Luppi, Bellani, & Rosina 2025).

Several explanatory frameworks have been proposed. From an economic perspective, studies emphasize the role of uncertainty, showing that perceived instability in employment and income discourages fertility (Lappegård et al. 2022; Vignoli et al. 2020), whereas higher income levels are positively linked to first-birth transitions (Van Wijk 2024; Van Wijk & Billari 2024). From an institutional angle, some scholars argue that family policies may be losing effectiveness, particularly when they fall short of meeting young adults' expectations regarding the costs and gendered burdens of parenthood (Vanhuysen et al. 2023; Beaujouan 2023). Research has also shown that the efficacy of family policies depends on the cultural orientations of individuals, with the same policy measures yielding different effects depending on whether they align with underlying values frameworks (McDonald, 2000; Gauthier, 2007).

Thus, alongside economic and policy factors, cultural orientations play a central role. In contemporary high-income societies, parenthood competes with other life goals in environments shaped by values that prioritize self-expression, autonomy, and lifestyle pluralism over material security and traditional conformity (Lesthaeghe 2010). In such a context, the choice to become a parent is no longer universally regarded as a prerequisite for adult self-fulfillment. Thus, understanding how individuals assign meaning to parenthood is therefore critical - not only for explaining fertility patterns but also for assessing whether policy interventions resonate with people's values. Yet the intersection between subjective motivations, such as the self-fulfillment relevance of childbearing, and the institutional environment remains underexplored.

This study addresses this gap by examining how individuals' cultural orientations shape the extent to which they view childbearing as a means of self-realization, conditioned by perceptions of welfare state support. We focus in particular on how the perceived self-fulfillment value of parenthood varies with an individual's position on Inglehart's postmaterialism scale, depending on expectations of public childcare provision. By connecting cultural values with institutional support, we highlight that fertility intentions cannot be understood without considering both the motivations that make parenthood meaningful and the policy environment that may enable—or hinder—individuals in pursuing those motivations.

What Inglehart's postmaterialism index actually captures has been widely debated (see, for example, van de Kaa, 2001). While some scholars question its ability to reflect the specific cultural drivers of fertility change associated with the Second Demographic Transition, there is broader consensus that the index effectively traces a wider and simultaneous ideational change towards cultural liberalization, universalism, and progressivism in political and civic life (Lesthaeghe and Moors 1995, Welzel and Inglehart 2005, Tsai & Peng 2025, Strenze 2021). This makes the measure particularly

suitable for our purposes. Focusing specifically on political dimensions of postmaterialist values (Strenze 2021) allows us to capture potential (mis)alignments between individuals' cultural orientations and their perceived level of welfare state support - misalignments that may, in turn, diminish the relevance of parenthood within their broader life plans.

By adopting this theoretical lens, our study contributes to the demographic literature on fertility, welfare state, and values, leveraging a well-established (albeit debated) measure of post-materialism. We build on this framework to investigate two research questions.

First, we ask whether generous family policies dealing with childcare - such as providing public childcare and parental leave - can make parenthood more compatible with postmaterialist life goals. Access to affordable and high-quality childcare, in particular, may enable individuals to adopt more egalitarian and non-traditional family roles while maintaining individual's autonomy (also from the family of origins), and opportunities for personal and professional development. In such supportive welfare contexts, postmaterialists may thus perceive childbearing as a viable avenue for self-realization, especially when parenting is embedded in a broader system of shared societal responsibility. By contrast, materialists - who tend to prioritize financial security - are expected to see childbearing support (not necessarily institutionalized) more as a measure that mitigates the economic risks associated with parenthood, without necessarily enhancing self-fulfillment aspects.

Second, we ask whether the often-observed positive relationship between welfare support and fertility intentions is partially mediated by the self-fulfillment value individuals attach to childbearing. We propose that family policies supportive of childcare may foster positive fertility intentions among postmaterialists not only by reducing structural barriers to parenthood - a mechanism that may also benefit materialists - but also by enhancing the symbolic and personal meaning of having children. In such cases, policy effects arise because individuals' cultural values align with the type of institutional support offered, making parenthood more consistent with their aspirations for self-realization and autonomy.

To address these questions, we draw on data from the *Rapporto Giovani* (Youth Report) survey, conducted in June 2022 on a representative sample of individuals aged 18–34 in Italy, France, Germany, and Spain. This survey provides unique data that allow us to examine how the perceived value of childbearing relates to both postmaterialist orientations and expectations of welfare state support for childcare, while also exploring how these factors jointly shape medium-term fertility intentions. For the purposes of this study, we focus on childless young adults aged 25–34. This enables us to concentrate on a more homogeneous group - both in their stage of life and in how they might interpret the relevance of childbearing for self-fulfillment - as they have not yet experienced parenthood but are within the typical age range for making family planning decisions

## **Background**

*Theoretical models linking childbearing relevance for self-fulfillment with values and fertility intentions*

The relevance of childbearing for self-fulfillment is a key dimension in understanding individual motives for parenthood. In the framework of the Generations and Gender Survey (GGS), for example,

the Miller scale on childbearing motivations includes a specific item that directly addresses this concept, asking respondents to what extent having children is important for their personal fulfillment (Miller, 1995; GGS, 2020). This reflects the broader psychological view that for many individuals, parenthood represents not just a social role or biological imperative, but a vital component of self-actualization and identity development (Maslow, 1943; Beck & Beck-Gernsheim, 2002). Under this premises, childbearing relevance for self-fulfillment is among the motivational forces guiding fertility intentions and behaviors, while it derives from the individual's and societal values and normative systems.

Thus, at the core of this motive to become parent lie individual values - fundamental belief systems that orient people toward certain life goals and influence how they assign meaning to different life domains. A number of socio-psychological models make it possible to locate this type of motivation along the continuum between an individual's cultural value system and their fertility intentions and behaviors.

According to the *Traits-Desire-Intentions model* proposed by Miller and Pasta (1988), values generate the internal needs and priorities that feed motivation, which is considered the driving force behind intentional behavior. Motivation bridges the gap between abstract value systems and concrete intentions by creating psychological energy directed toward goal achievement. When childbearing aligns with personally or culturally salient values - such as fulfilling one's duty to the family, achieving emotional richness, or contributing to the next generation - it often becomes a powerful intention, internalized and pursued even in the face of external constraints (Miller et al. 2010).

Intentions themselves, as Ajzen (1991) emphasizes in the *Theory of Planned Behavior*, are the most immediate predictors of behavior and are shaped by attitudes, perceived norms, and perceived control. In the case of childbearing, the intention to have children is often rooted – even not necessarily – in a deeply held conviction that parenthood is meaningful and worthwhile. In this way, motivational structures tied to values - whether individualistic (e.g., self-actualization) or collectivistic (e.g., duty to kin or society) - play a crucial role in shaping reproductive decision-making. This perspective underscores that childbearing, far from being a purely rational or economic decision, is often the outcome of long-standing value-driven processes that give direction and purpose to people's lives (Bernardi, Klärner & von der Lippe, 2008).

A similar interpretation is offered by *Self-Determination Theory (SDT)*. From this perspective, the self-fulfillment relevance of childbearing reflects individuals' efforts to satisfy three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan 1985; Ryan & Deci 2000). Parenthood can serve these needs when the decision to have children is experienced as an authentic, self-endorsed goal rather than merely a response to social pressure. In this sense, childbearing becomes a pathway to personal growth, emotional connection, and a sense of effectiveness in generative roles. When fertility intentions are grounded in such self-determined motivations, they are more coherent, stable, and likely to translate into action (Vansteenkiste et al. 2006; Koestner et al. 2008). Thus, when parenthood is seen as a means of self-actualization, it not only carries deep psychological significance but also strengthens the motivational foundation of reproductive intentions.

Other theoretical approaches, instead, seek to explain why, beyond material or normative constraints, individuals may be motivated to have children as part of their pursuit of self-fulfillment, personal growth, and life purpose.

*Maslow's hierarchy of needs* provides a psychological model for understanding how childbearing can contribute to self-realization. Maslow (1943) proposed a five-tier model of human needs, ranging from physiological necessities to psychological needs such as love, esteem, and ultimately, self-actualization - the realization of one's full potential and personal growth. Parenthood can meet needs across these levels. At the basic levels, having children may fulfil security and emotional connection; at higher levels, it often becomes a profound expression of identity, legacy, and personal purpose. In particular, for individuals whose lower-order needs are already met - such as those in more affluent or stable environments - childbearing increasingly reflects aspirations for meaning, contribution, and emotional fulfilment, aligning with the pursuit of self-actualization. These motivations are evident in empirical findings from studies on the Second Demographic Transition, where values have shifted from survival and conformity to self-expression and individual autonomy (Lesthaeghe, 2010; van de Kaa, 2001). In such contexts, fertility intentions are often driven less by normative or economic considerations and more by expressive, identity-related goals. Individuals may intend to have children because they see parenthood as integral to completing their life story, achieving personal growth, or expressing love and care in ways that are deeply meaningful.

The *Value of Children (VOC) perspective* (Hoffman 1975; Hoffman and Hoffman 1973) proposes that individuals and couples attribute various types of value to having children, ranging from economic utility to psychological and emotional meaning. In contemporary postmaterialist societies, the psychological value of children tends to dominate: children are viewed less as a source of material support and more as contributors to parents' emotional well-being, identity, and life purpose. Parenthood, in this context, is often associated with personal growth, legacy, love, and a sense of completeness, reflecting the cultural shift toward expressive individualism. With socio-economic development and the decline of material dependency on offspring, the role of children becomes increasingly symbolic and relational. This emotional and identity-based value attached to childbearing significantly informs fertility motivations, which in turn shape fertility intentions - that is, the conscious plans or desires to have children.

Empirical studies have confirmed these patterns. For instance, Nauck (2007), using cross-national data, found that in low-fertility, post-industrial societies, emotional and psychological rewards - such as joy, affection, and a sense of purpose - play a more significant role in shaping fertility intentions than do economic factors or normative pressures. Rather than being primarily driven by material considerations or societal expectations, individuals' decisions about whether to have children appear to be more strongly influenced by their perceptions of the intrinsic value and personal meaning of parenthood. These results suggest a shift toward more individualized, affective reasoning in reproductive decision-making, particularly in high-income or post-industrial contexts.

On the same line, within *the life course perspective*, childbearing is understood not merely as a demographic event but as a crucial life transition that helps individuals develop, express, and confirm their social identity. In many cultural contexts, parenthood is seen as a central marker of adulthood and personal maturity, often embedded within culturally normative life scripts that define what constitutes a successful or meaningful life course (Elder, 1994; Hitlin & Elder, 2007). Individuals are

motivated to enact roles that are meaningful to them and socially recognized; thus, becoming a parent provides a socially validated identity that fosters a sense of purpose, stability, and belonging (Burke & Stets, 2009). Fertility intentions, from this viewpoint, are shaped by the extent to which individuals internalize and value the parental role as part of their self-concept. Empirical research shows that people with a stronger salience of family-related identities tend to exhibit clearer and earlier fertility intentions, and are more likely to follow through with them (Bernardi, 2003; Toulemon & Mazuy, 2004). For many, childbearing is not just a reaction to external pressures or opportunities but a deliberate step toward fulfilling an internally coherent identity and following a socially intelligible life trajectory.

Recent empirical studies have shown that these approaches should be viewed as complementary rather than competing, as they collectively offer an articulated framework for understanding how childbearing can contribute to individuals' self-fulfillment (Luppi, Rosina, & Testa 2025; Schmidt 2024). Luppi and colleagues (2025), using survey data from a representative sample of Italian young-adults, offer a multidimensional understanding of why childbearing may - or may not - be experienced as relevant to an individual's sense of self-fulfillment, highlighting the role of both socio-demographic resources and constraints, as well as the individual's system of values. The coexistence of different sources of meaning for self-fulfillment in parenthood has been identified by Schmidt (2024), based on findings from in-depth qualitative interviews conducted in Austria. The author found that the belief that children are necessary for a fulfilling life is not simply a personal emotion, but a socially structured expectation. It reflects deeply ingrained beliefs about what a successful life should look like and reveals how individuals internalize and respond to the moral weight of those expectations. At the same time, in a society that prizes autonomy and careful life planning, childbearing becomes a decision that must be weighed, rationalized, and timed precisely.

### *Postmaterialism, fertility, and family policies*

Drawing on Inglehart's (1977; 1990) theory of value change, postmaterialism refers to a shift in individual priorities from material survival and social conformity toward self-expression, personal autonomy, and pluralism, as economic security and educational attainment increase (Inglehart 2007). Inglehart and Welzel's (2005) broader analysis of value change confirms that as societies become more economically developed and democratic, fertility behavior becomes more reflective of self-directed values, and less responsive to traditional norms or institutional incentives.

This cultural transformation is strongly associated with many indicators of the Second Demographic Transition framework, which links family diversification to broader ideational shifts (van de Kaa, 2001; Lesthaeghe & Surkyn, 2004; Sobotka et al., 2011). In this context, childbearing is no longer considered a normative life-course obligation, but one option among many for achieving personal fulfillment and identity realization.

However, postmaterialism, as theorized by Inglehart, has faced sustained critique on both conceptual and empirical grounds. Conceptually, scholars have noted that the construct overlaps considerably with broader frameworks like postmodernism, individualization, and self-expression values (van de Kaa, 2001). This overlap raises the question of whether postmaterialism represents a distinct value dimension or merely a narrower expression of wider cultural transformations in advanced societies.

Empirically, at the macro level, while postmaterialism correlates with changing partnership dynamics - such as rising cohabitation, delayed marriage, and non-traditional family forms - its direct association with fertility levels is weak or inconsistent. A recent micro-level study from Anisin (2025) offers empirical evidence of the associations between postmaterialism and fertility preferences at the individual level in the United States. The study reports that postmaterialist value holders are significantly more likely to perceive life without children as equally meaningful and to resist normative pronatalist pressures. Author claim that this result is in favor of the idea that – at the individual level - postmaterialism weakens the social desirability of parenthood, supports higher tolerance for non-parental lifestyles (Kaufman, 2000), and fosters reproductive autonomy - particularly among highly educated women. However, as previously noted, it is difficult to determine whether postmaterialism itself is associated with lower fertility preferences, or whether this relationship is spurious, driven instead by the correlation between postmaterialism and other postmodern value dimensions, such as e.g., individualism, secularism, or gender egalitarianism.

At the same time, materialist/postmaterialist orientations have been found associated with policy preferences (e.g., Lafferty and Knutsen 1985, Hofer 1988, Goerres and Tepe 2012). These studies are mainly at the macro level, supporting the idea that a progression towards postmaterialism is in favor to policies that expand personal choice and gender equality, such as flexible parental leave, accessible childcare, or reproductive rights. In this sense, postmaterialism rather than explaining fertility outcomes directly, it helps explain why certain pronatalist or family-support policies are more politically legitimate or socially acceptable in some societies than others.

Importantly, however, some forms of support - particularly public childcare - may appeal to both groups, albeit for different reasons. For materialists, accessible childcare primarily serves as an insurance mechanism against income loss or career interruption following parenthood, thereby preserving economic stability (Corneo & Grüner 2002; Cusack et al. 2006; Rehm 2009; Goerres and Tepe 2012). For postmaterialists, by contrast, the same provision also carries strong ideological significance: it enables more egalitarian family arrangements, supports personal autonomy, and makes parenthood compatible with self-realization and non-traditional life courses. As a result, the positive effect of welfare state support on self-fulfillment meaning of childbearing - especially through childcare services - should be stronger among postmaterialists, for whom the economic benefits of such policies are reinforced by a sense of ideological and value-based congruence.

Thus, postmaterialism can shape how individuals interpret the costs and benefits of parenthood. Rather than emphasizing economic or security-related motivations, postmaterialist individuals tend to evaluate childbearing through lenses of emotional meaning, life satisfaction, and personal growth - criteria that have been found relevant for taking childbearing decision in contemporary low fertility contexts (Hakim, 2003; Mencarini et al., 2018; Luppi 2016; Gauthier & de Jong 2021). In a context where parenthood competes with aspirations for career development, self-actualization, and leisure, the perceived “opportunity costs” of children can be particularly high (Liefbroer, 2005; Thévenon & Luci, 2012), because they inhibit individual’s full self-fulfillment.

## **Hypotheses**

Drawing on the socio-cognitive perspective outlined earlier (in particular: Miller and Pasta 1988; Ajzen, 1991; Ryan & Deci 2000), we conceptualize individual values (in this case, materialism-postmaterialism) as antecedents of childbearing motives and perceived childbearing relevance -

specifically, the extent to which having children is viewed as part of achieving a self-fulfilling life - which in turn shape fertility intentions. Expectations regarding welfare-state support are treated as contextual drivers whose effect interacts with the individual's values in influencing both the motivational level (self-fulfillment relevance) and the intention level (3-years fertility intentions) (Figure 1).

Building on this framework, we derive two main hypotheses concerning the associations between materialist-postmaterialist values, the perceived relevance of childbearing for self-fulfillment, fertility intentions, and the role of expected welfare-state support for childcare.

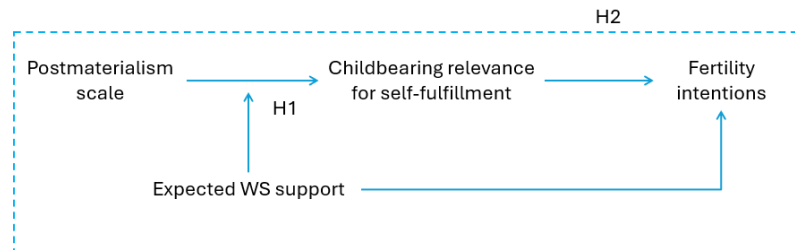
The first hypothesis deals with the relationship between materialism-postmaterialism, perceived welfare state support, and the relevance of childbearing for self-fulfillment in life (*moderation hypothesis*). For individuals with postmaterialist orientations - who place strong emphasis on autonomy, pluralism, and free self-expression - parenthood might appear incompatible with their broader life goals when these priorities are put in danger by the child arrival. Thus, we expect that when generous welfare provisions supporting parents with childcare are perceived to be available - such as subsidized childcare and paid parental leave - they can ease these burdens and reframe childbearing as a realistic and personally meaningful choice for postmaterialists. In this context, the convergence between supportive policies and postmaterialist values may make parenthood more attractive, not despite it but because of its potential to contribute to self-fulfillment. From these considerations, we derive our first hypothesis:

*H1 – When individuals expect low levels of welfare state support for childcare, those with higher postmaterialist values are, on average, less likely to view childbearing as a source of self-fulfillment than both more materialist individuals and postmaterialists who expect higher levels of welfare state support.*

The second hypothesis concerns the relationship between postmaterialist values, expected welfare state support for childcare, self-fulfillment relevance of childbearing, and fertility intentions (*mediation hypothesis*). If the previous hypothesis holds, welfare state support does more than simply provide the material conditions necessary for childrearing - it also shapes how individuals perceive parenthood itself. In this framework, postmaterialists' perception of effective childcare policy support may strengthen their fertility intentions not only through practical assistance (*direct* effect), but also through greater alignment with their values, which enhances childbearing relevance in individual life first and their fertility intentions later (*indirect* effect). Conversely, when postmaterialists anticipate low levels of welfare support, fertility intentions may decline both because structural constraints remain unaddressed and because the symbolic and personal significance of childbearing is weakened. Since such policies are expected to be less closely linked to the self-fulfillment relevance of childbearing for materialists (see previous hypothesis), their perception of accessible childcare should primarily alleviate the practical burden of parenthood - contributing to fertility intentions through a direct, rather than self-fulfillment mediated, pathway. From these expectations we derived the following hypothesis:

*H2 – Among postmaterialists, the association between expecting higher levels of welfare state support for children and fertility intentions is partially mediated by the significance attributed to childbearing for an individual's self-realization. Among materialists, instead, only the direct channel is expected to be significant.*

Figure 1 – Hypothesized associations between materialist-postmaterialist values and fertility intentions, including the moderating role of expected welfare state support with childcare, and the mediating role of childbearing relevance for self-fulfilling life (Hypotheses 1 and 2).



## Data

We rely on unique data from the *Rapporto Giovani* (Youth Report) survey, conducted in June 2022 on a representative sample of 5000 European young adults, aged 18 to 34 (2000 respondents in Italy, 1000 respondents in each of the following countries: France, Germany, and Spain). Data has been collected by IPSOS agency through CAWI and CATI method. Sample representativeness of the original population is based on quotas calculated on the distribution of some socio-demographic variables in the target population (i.e., gender, age, level of education, employment status, region of residence at NUTS1 level, municipality size) on which also sampling weights have been calculated.

We specifically consider childless individuals aged 25 to 34 (2616 observations), as this subgroup is situated in the prime childbearing window where fertility intentions are most likely to translate into behavior. This focus minimizes heterogeneity introduced by very young adults (18-24), whose intentions are often unstable or oriented toward postponement, and by individuals who have already become parents, for whom parity-specific dynamics would complicate the interpretation of first-birth intentions. Moreover, by focusing only on childless individuals, we seek to capture childbearing meaning and fertility intentions that pertain specifically to the transition to parenthood, thereby avoiding the confounding influence of parity-specific factors (e.g., experiences with previous children) that shape both intentions and the relevance attributed to having children.

Our dependent variable for H1 assesses the *individual's importance attributed to childbearing for self-realization in life*. It is constructed based on respondents' selections from four provided statements:

1. "I think that I would have a fulfilled life even without children"
2. "I think I would have a fulfilled life only with one child"
3. "I think I would have a fulfilled life only with two children"
4. "I think I would have a fulfilled life only with a large family (at least three children)".

The survey asked to the respondent to select the option that fits more with her/his perception. To enhance the interpretability of our results, we dichotomize this variable into two categories. The first category (which takes value 0) encompasses respondents who indicated that they believe they would have a fulfilled life even without children [option 1], while the second category (which takes value 1) comprises respondents who chose any of the other options. Focusing on this extreme category facilitates a focused examination of the presence or absence of such motive for childbearing.

The dependent variable for H2 measures *fertility intentions*. It is derived from the answer to the question “Do you intend to have a child in the next three years?”: the variable takes value 1 in case of a positive answer and 0 otherwise. This is the typical question for asking medium-term fertility intentions, avoiding a life-time perspective, which would make the reported intentions much closer to more abstract desires.

To measure *post-materialistic values* (PM), we rely on the Inglehart’s scale based on 12 items as reported in the European/World Values Study (Inglehart & Abramson 1999; see Appendix Table 1A for the full list of items). It is designed to capture the extent to which people prioritize postmaterialist values - such as autonomy, freedom of expression, participation, and environmental protection - over more traditional materialist concerns like economic stability, national security, and social order. In this version, respondents are presented with a list of twelve political goals and asked to rank the four they consider most important. To calculate the index, researchers count how many postmaterialist items appear among a respondent’s top four choices. Individuals with higher scores are considered to hold stronger postmaterialist orientations, while those with lower scores are considered more materialist in outlook (see also Inglehart & Abramson, 1999).

About the *expected level of welfare state support for childcare* (WS), individuals answer to questions on their expectations that - in case of childbearing - they will be adequately supported by the welfare state: “If you had children (other children), how much could you rely on support for childcare from the welfare state?”, with possible answers ranking from 1 (a lot) to 4 (not at all). The variable has been recategorized into a dummy, taking value 1 in case respondent answers 1 (A lot) or 2 (Quite a bit) vs 0 in case they answer 3 (A little) or 4 (Not at all).

Finally, traditional *socio-demographic variables* are considered as control variables: age (in classes as used to calculate the sampling quotas: 25-29 and 30-34), gender (male, female), level of education (contrasting those with a tertiary degree to those without), occupational conditions (Neet, student, manager/professional, other self-employed, permanent employee, temporary employee, project-based/casual worker), country of residence (Italy, France, Spain, Germany), and the presence of a stable partner (vs those not in stable partnership).

Sample distribution across the covariates and the control variables is in the Appendix (Table 2A).

## **Method**

The *first step* of the analysis aimed to explore the relationships hypothesized in H1, employing logistic regression models in which the perceived relevance of childbearing for self-fulfillment served as the dependent variable.

For the model testing H1, the postmaterialism index (entered both linearly and quadratically) was included as the key independent variable alone and interacted with the expectation of welfare state support for childcare, hypothesized to be associated with the perception that childbearing is necessary for achieving self-fulfillment. The quadratic specification was introduced to capture potential non-linear relationships, as previous research suggests that the association between postmaterialist values and family-related attitudes may not be strictly monotonic.

In the model, all control variables were included and sampling weights were applied.

The *second step* of the analysis served as a bridge between the descriptive tests of H1 and the formal mediation analysis designed to evaluate H2. Specifically, before estimating the full moderated mediation model, we first examined whether postmaterialism, in interaction with expected welfare state support, was directly associated with the intention to have a child within the next three years. This preliminary check is important because mediation can only be meaningfully tested if there is an association - either direct or indirect - between the predictor and the outcome.

To this end, we estimated two logistic regression models:

- (1) a baseline specification excluding the hypothesized mediator - childbearing self-fulfillment relevance - and including the interaction effect between postmaterialism and perceived welfare state support;
- (2) an extended specification including childbearing self-fulfillment relevance as an additional covariate; this model measures the *direct effect* of postmaterialism on fertility intentions, moderated by perceived welfare state support.

The comparison between these two models provides an initial indication of whether the mediator may transmit part of the effect of the interaction term on fertility intentions. If the inclusion of self-fulfillment reduces the strength of the interaction effect, this would be consistent with partial mediation. If, instead, the inclusion of self-fulfillment strengthens the interaction, this may suggest a suppression pattern, which still warrants a formal mediation test. Either way, this step is not intended to provide definitive evidence of mediation, but rather to establish whether the conditions are in place for mediation to be tested formally through structural equation modelling.

Finally, the *third step* aimed at empirically testing our second hypothesis (H2). We estimated a moderated mediation model using Generalized Structural Equation Modelling (GSEM) in *Stata 18*, which allows for the simultaneous estimation of multiple pathways while appropriately handling binary outcome variables through logit link functions. Our primary outcome of interest is fertility intentions, operationalized as the intention to have a child within the next three years (binary). The key explanatory variable is the individual's level of postmaterialism (continuous), which we center on its sample mean (7.5) to facilitate interpretation of interaction and quadratic terms. The mediating variable is the perceived self-fulfillment relevance of childbearing (binary), measuring the extent to which individuals view having children as essential to personal fulfilment.

A central feature of our model is the inclusion of perceived welfare state support for childcare (binary) as a moderating factor, which conditions both the direct effect of postmaterialism on fertility intentions and its indirect effect through self-fulfillment relevance. Both the linear and quadratic terms of postmaterialism, and their interactions with the moderator, are included in the mediator and outcome equations to capture potential non-linearities and moderation effects. In addition to these main variables, the model incorporates a set of socio-demographic controls - gender, age group, educational attainment, stable partnership status, household income, and country of residence - which enter both the mediator and outcome equations to adjust for relevant confounders.

Formally, let  $X_c$  denote centered postmaterialism ( $X - 7.5$ ),  $W$  the indicator of expected childcare support,  $M$  the binary mediator, and  $Y$  the binary outcome. The structural equations are:

### *Mediator equation*

$$\text{logit}[P(M = 1)] = \alpha_0 + \alpha_1 X_c + \alpha_2 X_c^2 + \alpha_3 W + \alpha_4 (X_c \times W) + \alpha_5 (X_c^2 \times W) + C\gamma$$

### *Outcome equation*

$$\text{logit}[P(Y = 1)] = \beta_0 + \beta_1 M + \beta_2 X_c + \beta_3 X_c^2 + \beta_4 W + \beta_5 (X_c \times W) + \beta_6 (X_c^2 \times W) + C\delta$$

where  $C$  represents the vector of socio-demographic control variables.

The conditional indirect effect of postmaterialism on fertility intentions, at a given value  $x_c$  of centered PM and moderator level  $z$  ( $0 =$  no expected childcare support;  $1 =$  expected childcare support), is computed as:

$$IE(x_c, z) = [(\alpha_1 + \alpha_4 z)x_c + (\alpha_2 + \alpha_5 z)x_c^2] \times \beta_1$$

To estimate these indirect effects and their sampling variability, we employ nonparametric bootstrapping with 500 replications, resampling the full dataset and re-estimating the GSEM model in each replication (using an authors' custom program in *Stata 18*). The sampling distribution of indirect effects is typically non-normal, especially in finite samples and when interaction or nonlinear terms are present (MacKinnon, Lockwood, & Williams, 2004). Standard errors derived from the delta method assume asymptotic normality and often yield biased inference for mediation models. By relying on bootstrapping, we avoid these distributional assumptions by repeatedly resampling the data and re-estimating the model, thereby generating an empirical approximation of the sampling distribution of the indirect effect. Thus, we obtained bias-corrected standard errors and confidence intervals for the point estimates of  $IE(x_c, z)$  at specific values of postmaterialism and the moderator, without relying on normality assumptions for the indirect effects (Bollen and Stine 1990).

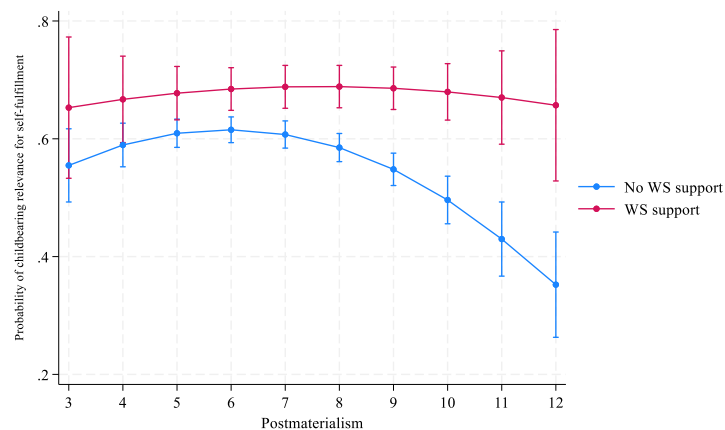
Analyses by gender were also performed, but differences emerged only rarely and were small in magnitude. For this reason, they are not reported in this study.

## **Results**

### *Associations between postmaterialism, expected welfare state support and childbearing self-fulfillment relevance.*

The results from the logistic regressions support H1. On average, childless postmaterialists who do not expect welfare-state support for childcare are significantly less likely to regard parenthood as essential to a self-fulfilling life compared to both more materialistically oriented individuals and postmaterialists who do anticipate substantial institutional support. Among the latter, the perceived importance of childbearing is comparable to that of materialists (Figure 2). Consistently, the moderating effect of expected policy support on the self-fulfillment motive for having children varies along the postmaterialism scale: it is negligible among materialists but becomes positive and statistically significant at higher, more postmaterialist values.

Figure 2 – Probability of considering having at least one child as a prerequisite for a self-fulfilling life by level of post-materialism and expected welfare state support with childcare (childless individuals aged 25-34)



Note - Predicted probabilities from logit model (95% CIs), controlling for: age, gender, employment status, partnership status, country of residence. Full results in Appendix, Table 3A.

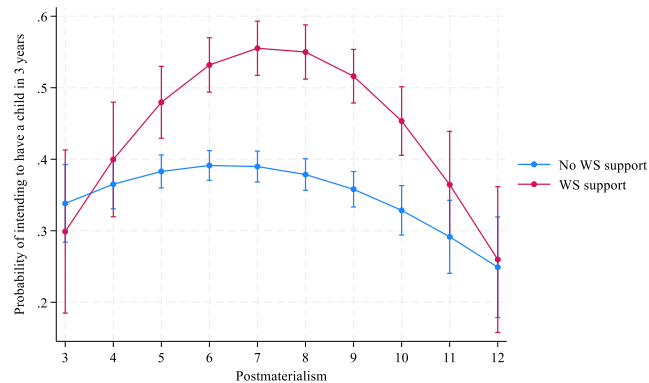
### *Associations between postmaterialism, childbearing self-fulfillment relevance, and fertility intentions*

Before turning to the moderated mediation analysis, we examined whether postmaterialism, in interaction with expected welfare state support, is associated with the intention to have a child within the next three years. Two logistic regression models were estimated:

1. Model 1: without the hypothesized mediator (i.e., self-fulfillment relevance), and
2. Model 2: including self-fulfillment relevance as a covariate.

In Model 1, the highest predicted probabilities of intending to have a child occur among individuals with medium PM scores who expect childcare support from the welfare state (Figure 3). Not expecting such support reduces the probability by up to 16 percentage points for those at PM = 8. In supportive contexts, both strongly materialist and strongly postmaterialist individuals are less likely to intend a short-term birth than those at mid-range PM, by as much as 25 percentage points. In non-supportive contexts, the drop in probability is steeper for those scoring high on PM when compared to those at mid-range and low PM scores (-14 percentage points between PM=7 and PM=12).

Figure 3 – Probability of intending to have a child in the next 3 years, by level of post-materialism and expected welfare state support with childcare (childless individuals aged 25-34; Model 1)

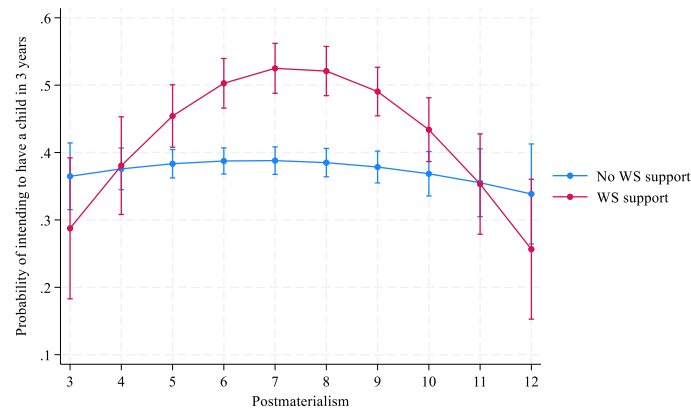


Note – Predicted probabilities from logit model (95% CIs), controlling for: age, gender, employment status, partnership status, country of residence.

In Model 2, self-fulfillment relevance is strongly and positively associated with fertility intentions (coef. = 1.661,  $p < 0.001$ ; see Table 1). Notably, including the mediator increases both the size and statistical significance of the  $PM \times WS$  interaction (linear: from 0.650,  $p = 0.075$  in Model 1, to 0.863,  $p = 0.025$  in Model 2; quadratic: from -0.041,  $p = 0.079$  in Model 1, to -0.058,  $p = 0.025$  in Model 2). This pattern is characteristic of a suppression effect on the direct pathway: variance shared between the mediator and the interaction term was masking part of the moderation effect, which becomes more apparent once the mediator is controlled. While suggestive, these regression results cannot distinguish whether the suppression operates on the direct pathway alone or also involves the indirect pathway, motivating the formal decomposition of effects reported next.

Figure 4 illustrates that the “practical” (*direct*) effect of perceiving effective welfare-state support enhances fertility intentions, but only among individuals with mid-range levels of postmaterialism. In contrast, the direct effect of welfare support is weaker - and not higher than among those who do not expect such support - for both materialists and highly postmaterialist individuals. This pattern suggests that, once the self-fulfillment relevance of childbearing is accounted for, welfare support exerts limited direct influence on fertility intentions at the extremes of the value spectrum. For these groups, such support either plays little role in shaping fertility intentions or operates primarily through the indirect pathway of self-fulfillment relevance, as hypothesized for postmaterialists.

Figure 4 – Probability of intending to have a child in the next 3 years, by level of post-materialism and expected welfare state support with childcare, including self-fulfillment relevance as covariate (childless individuals aged 25-34; Model 2)



Note – Predicted probabilities from logit model (95% CIs) including self-fulfillment relevance of childbearing, controlling for: age, gender, employment status, partnership status, country of residence.

Table 1 - Logistic regression estimates of the intention to have a child within the next three years (childless individuals aged 25–34), without (Model 1) and with (Model 2) childbearing self-fulfillment relevance as a covariate.

	Model 1		Model 2	
	Coeff.	p-value	Coeff.	p-value
Childbearing self-fulfillment			1.661	0.000
PM	0.289	0.083	0.124	0.456
PM <sup>2</sup>	-0.023	0.051	-0.009	0.424
WS support	-1.776	0.178	-2.500	0.068
WS support*PM	0.650	0.075	0.863	0.025
WS support*PM <sup>2</sup>	-0.041	0.079	-0.058	0.025

Note - Coefficients are log-odds. Both models control for age, gender, employment status, partnership status, and country of residence. PM = postmaterialism; PM<sup>2</sup> = quadratic term for postmaterialism; WS support = expected welfare state support with childcare.

### Conditional indirect effects

To disentangle the direct and indirect pathways linking postmaterialism, welfare state support expectations, and fertility intentions, we estimated a generalized structural equation model (GSEM) and obtained nonparametric bootstrapped confidence intervals for the conditional indirect effects. The postmaterialism index was mean-centered ( $M = 7.5$ ), so that coefficients refer to effects at the sample mean, with deviations indicating increasingly postmaterialist (higher scores) or materialist (lower

scores) orientations. Conditional indirect effects were calculated for each integer value of PM (3-12), separately for respondents not expecting (WS0) and expecting (WS1) public childcare support.

Among those not expecting support (WS0), the indirect effect is close to zero around the PM mean but changes sign across the range (Table 2 and Figure 5). It is significantly positive at low mid-range PM (e.g., PM = 6: 0.111, 95% CI = 0.038-0.184) and becomes significantly negative at higher PM (e.g., PM = 10: -0.488, 95% CI = -0.699 to -0.277; PM = 12: -1.152, 95% CI = -1.695 to -0.608). At PM = 12, the mediated pathway corresponds to an odds ratio of approximately 0.32 - indicating a 68% reduction in the odds of intending a birth *via the mediator alone* relative to the mean PM value. By contrast, among those expecting support (WS1), the indirect effect remains small and statistically indistinguishable from zero across the PM range; all 95% confidence intervals include zero.

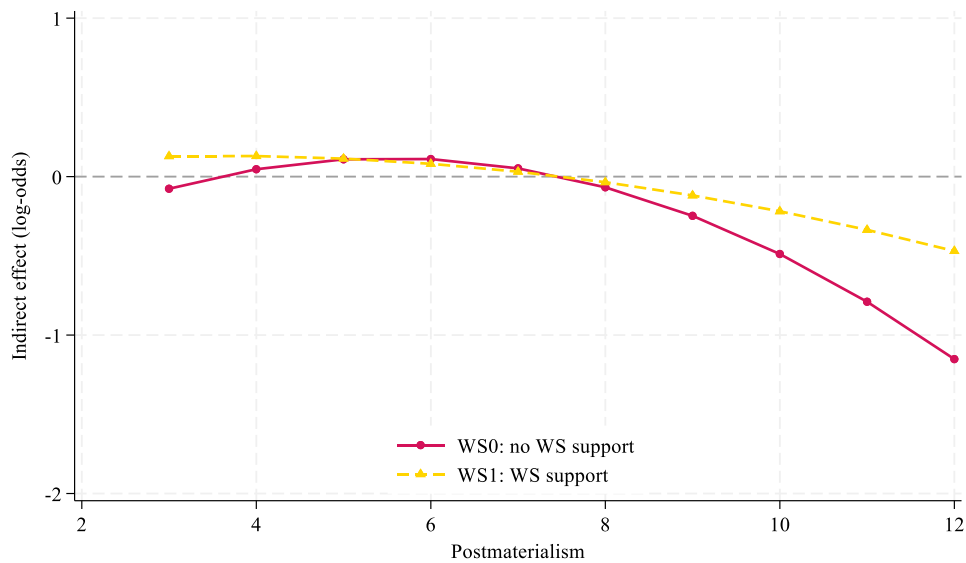
Taken together with the previous regression results (Model 1 and 2 in Table 1), these findings indicate an *inconsistent mediation pattern* - also known as competitive mediation (MacKinnon, Krull, & Lockwood, 2000) - in which the indirect effect via the mediator operates in the opposite direction to the direct effect. In this case, in low-support environments, mid-range postmaterialists tend to see childbearing as an important source of self-fulfillment, which indirectly raises their fertility intentions. However, for highly postmaterialist individuals in the same unsupportive contexts, the self-fulfillment pathway works in the opposite direction, reducing their intention to plan for children. At the same time, the direct effect of postmaterialism, particularly when interacted with no welfare state support, remains constant along the postmaterialism distribution. The coexistence of a no direct effect and a negative indirect effect produces the inconsistent mediation pattern detected in the GSEM, and helps explain why adding the mediator in the regression analysis increased rather than diminished the interaction effect (MacKinnon et al., 2000; Preacher & Hayes, 2008; MacKinnon, 2008). In substantive terms, this suggests that institutional support may not only shape whether postmaterialist values translate into fertility-friendly or fertility-averse orientations, but it is also associated to the kind of pattern - direct or mediated through self-fulfillment - becomes dominant.

Table 2- Bootstrapped conditional indirect effects of postmaterialism (PM) on fertility intentions via childbearing self-fulfillment, by PM level and welfare state (WS) support expectation.

PM score	WS support not expected (WS0)				WS support expected (WS1)			
	Log-odds	SE	ci: lower bound	ci: upper bound	Log-odds	SE	ci: lower bound	ci: upper bound
3	-0.076	0.200	-0.468	0.315	0.129	0.364	-0.585	0.843
4	0.047	0.126	-0.201	0.294	0.130	0.233	-0.327	0.586
5	0.109	0.073	-0.034	0.252	0.114	0.135	-0.151	0.378
6	<b>0.111</b>	<b>0.037</b>	<b>0.038</b>	<b>0.184</b>	0.081	0.067	-0.050	0.212
7	<b>0.052</b>	<b>0.012</b>	<b>0.028</b>	<b>0.076</b>	0.031	0.020	-0.009	0.071
8	<b>-0.067</b>	<b>0.014</b>	<b>-0.095</b>	<b>-0.040</b>	-0.035	0.022	-0.079	0.008
9	<b>-0.247</b>	<b>0.052</b>	<b>-0.350</b>	<b>-0.145</b>	-0.119	0.080	-0.276	0.038
10	<b>-0.488</b>	<b>0.108</b>	<b>-0.699</b>	<b>-0.277</b>	-0.219	0.165	-0.541	0.104
11	<b>-0.790</b>	<b>0.182</b>	<b>-1.147</b>	<b>-0.432</b>	-0.336	0.281	-0.886	0.214
12	<b>-1.152</b>	<b>0.277</b>	<b>-1.695</b>	<b>-0.608</b>	-0.470	0.430	-1.312	0.373

Note - Estimates are in log-odds; positive values indicate that the mediator increases the odds of intending a birth, negative values indicate the opposite. Significance is assessed by 95% bias-corrected bootstrap confidence intervals (CIs); effects are considered statistically significant only when CIs exclude zero (in bold). Reported odds ratios (ORs) correspond to the mediated pathway only and should not be interpreted as total effects

Figure 5 - Bootstrapped conditional indirect effects of postmaterialism on fertility intentions via childbearing self-fulfillment relevance, by welfare state (WS) support expectation



Note: Effects are plotted in log-odds; shaded bands represent 95% bias-corrected bootstrap CIs. The red series (WS0: WS no support expected) shows significant positive mediation at mid-PM levels and significant negative mediation at high PM, with CIs excluding zero (marked in bold in Table 2). The yellow series (WS1: WS support expected) remains close to zero across the PM range, with all CIs crossing zero, indicating no statistically detectable mediation.

## Conclusion

Our findings align with our initial expectations and resonate with emerging evidence in the demographic and sociological literature. We show that the fertility implications of materialist-postmaterialist values cannot be understood in isolation from either the institutional context or the self-fulfillment relevance of childbearing. The expected childbearing contribution to self-fulfillment in life seems to play a pivotal role in shaping how values translate into intentions. The same level of postmaterialism can be associated with higher or lower fertility intentions depending on the expected degree of welfare state support with childcare, and these associations unfold through distinct and sometimes opposing pathways.

The main pattern emerges among respondents who anticipate limited public support: for individuals with low to mid-range postmaterialist values, fertility intentions are indirectly strengthened by the fact that childbearing continues to be seen as an important source of self-fulfillment; by contrast, for highly postmaterialist individuals, the very same pathway becomes inhibitory, as childbearing is no longer regarded as central to a fulfilling life. In practical terms, this means that a young adult with moderately postmaterialist values may still intend to have children if they view parenthood as fulfilling, even in the absence of institutional support, while a highly postmaterialist peer in the same context may decide against parenthood precisely because they see little self-fulfillment in it.

This suggests that institutional arrangements regarding childcare can play a compensatory role, reducing the perceived incompatibility between postmaterialist life goals and the demands of parenthood. Such findings are consistent with research showing that family policies are most effective

when they are value-congruent, enabling individuals to reconcile parenthood with autonomy and self-realization (McDonald 2000; Gauthier 2007; Thévenon & Gauthier 2013; Botev 2015). At the same time, our results suggest a more nuanced interpretation of Anisin's (2025) findings: it is not postmaterialist orientation *per se* that reduces the appeal of childbearing, but rather the degree to which institutional support aligns with individuals' values. When such alignment occurs, it can reinforce fertility intentions through the positive meaning attributed to parenthood; when it does not, it may weaken them.

Our findings highlight distinct fertility mechanisms also on the rest of the values spectrum. Among materialists, fertility intentions appear largely unaffected by expectations of welfare state support on childcare; for them, such support does not substantially modify the perceived self-fulfilment value of childbearing, and its direct impact on fertility intentions remains limited. In contrast, individuals in the mid-range of postmaterialism show the highest fertility intentions, particularly when they expect effective childcare support. In this group, welfare provision seems to work through a direct, practical channel - reducing the costs of childrearing - and, to some extent, through an indirect motivational pathway, by reinforcing the view of parenthood as a meaningful and compatible life goal.

This study is not without limitations. First, the analysis relies on cross-sectional data, which prevents us from observing whether fertility intentions ultimately translate into behaviors. Future research should employ longitudinal data to test the robustness of these mechanisms with respect to actual childbearing trajectories. Second, the possibility of endogeneity cannot be excluded: the association between cultural orientations, perceived policy support, and fertility intentions may be shaped by unobserved factors, and intentions themselves may influence how individuals report their expectations of welfare state support. Third, our measurement of values is restricted to Inglehart's postmaterialism index. While widely used, this index has been criticized for its sensitivity to survey context and period effects, as well as for capturing a relatively narrow dimension of value change. The absence of complementary measures of cultural orientations in the survey - such as gender egalitarianism, individualism-collectivism, or family-related norms - limits our ability to fully assess how broader value systems interact with institutional contexts in shaping fertility intentions. Similarly, we do not examine possible associations with other forms of welfare support (e.g., those directed at supporting income). Further studies conducted under this framework should go in the direction of expanding the range of values and policy measures. Finally, because of the limited sample size, we cannot explore cross-country differences in our results; future comparative analyses with larger datasets would help clarify whether the observed patterns hold consistently across welfare regimes and cultural settings.

Despite these limitations, our results provide novel evidence that the self-fulfillment relevance of childbearing may play a pivotal role in shaping fertility intentions, and that this role is contingent on the perceived institutional context and individual's values. By showing how cultural orientations and expectations of welfare state support interact, the study underscores the need to integrate motivational and policy dimensions in explanations of fertility behavior.

Thus, regarding theoretical implications, our results suggest the need to expand existing frameworks of fertility decision-making by more systematically incorporating cultural orientations and subjective motivations. The self-fulfillment relevance of childbearing, in particular, emerges as a key mechanism through which values shape fertility intentions, sometimes reinforcing and sometimes counteracting

structural influences. Recognizing such motivational pathways helps explain why the same value orientation can be associated with opposite fertility outcomes depending on context. At the same time, exploring other value-related motivational patterns is crucial to better understand fertility drivers considering the cultural-complexity of contemporary societies.

On the policy side, evaluating the effectiveness of family policies solely on the basis of institutional design or economic incentives risks overlooking the role of the cultural and motivational dimensions. Our findings suggest that cultural pluralism in contemporary societies requires a pluralistic approach to family policy. Individuals differ not only in their material conditions but also in the meanings they attach to parenthood and the role of childbearing in their pursuit of self-fulfillment. A uniform, one-size-fits-all policy may therefore fail to resonate with significant segments of the population. Instead, policy mixes that accommodate diverse preferences and needs - as exemplified by the variety of instruments available in France - are more likely to align with heterogeneous value orientations. Such pluralistic policy frameworks may enhance the capacity of institutions to support fertility intentions across groups who differ in their cultural orientations and life goals.

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## Appendix

### Table 1A – Items of the materialism/postmaterialism battery

V1. People sometimes talk about what the aims of this country should be for the next ten years. Listed below are some of the goals that different people might give top priority to.

Please indicate which one you consider the most important, and which one you consider the second most important.

1. A high level of economic growth
2. Making sure this country has strong defense forces
3. Giving people more say in important decisions in business and in government
4. Trying to make our cities and countryside more beautiful

V2. Now please tell me which of the following goals you consider most important. Again, indicate your first and second choice.

1. Maintaining order in the nation
2. Giving people more say in important government decisions
3. Fighting rising prices
4. Protecting freedom of speech

V3. Now please tell me which of the following goals you consider most important. As before, indicate your first and second choice.

1. Maintaining economic stability
2. Progress toward a less impersonal and more humane society
3. Progress toward a society in which ideas are valued more than money
4. Fighting crime

Note – The battery is taken from Inglehart & Abramson (1999) (see also WVS Wave 6 codebook). Inglehart, R., & Abramson, P. R. (1999). Measuring postmaterialism. *American Political Science Review*, 93(3), 665-677.

**Table 2A – Sample distribution across the main covariates and control variables (weighed frequencies)**

	<b>Mean</b>	
<i>Postmaterialism index</i>	7.031952	
	<b>Abs. Freq.</b>	<b>%</b>
<i>Childbearing motive</i>		
No self-fulfillment	993	37.95
Self-fulfillment	1,623	62.05
<i>Welfare State support</i>		
No expected	1,859	71.07
Expected	757	28.93
<i>Gender</i>		
Women	1,392	53.22
Men	1,224	46.78
<i>Age class</i>		
25-29	1,356	51.85
30-34	1,260	48.15
<i>Education</i>		
No tertiary degree	1,783	68.17
Tertiary degree	833	31.83
<i>Country</i>		
Italy	1,110	42.43
Germany	517	19.77
France	433	16.55
Spain	556	21.24
<i>Employment condition</i>		
no studying no working	606	23.25
studying	418	16.01
manager or professional	147	5.65
other self-employed	84	3.23
employee - permanent	903	34.62
employee - fixed-term	338	12.95
project-based & casual work	116	4.3
<i>Partnership</i>		
No stable partner	1,012	38.67
Stable partner	1,604	61.33
<b>Total</b>	<b>2,616</b>	<b>100</b>

**Table 3A – Results from the logit model for considering having at least one child as a prerequisite for a self-fulfilling life by level of post-materialism and expected welfare state support with childcare. Control variables included. Sample of childless individuals aged 25-34.**

	<b>Coeff.</b>	<b>Robust std. err.</b>	<b>p-value</b>
<i>Gender (ref: men)</i>			
women	-0.379	0.097	0.000
<i>Education (ref: no tertiary)</i>			
tertiary degree	0.087	0.102	0.396
<i>Country (ref: Italy)</i>			
Germany	0.323	0.136	0.018
France	0.375	0.136	0.006
Spain	-0.076	0.122	0.532
<i>Age class (ref: 25-29)</i>			
30-34	-0.180	0.096	0.060
<i>Stable relationship (ref: no stable)</i>			
stable partner	0.545	0.099	0.000
<i>Employment condition (ref: Neet)</i>			
studying	0.516	0.172	0.003
manager or professional	0.289	0.220	0.188
other self-employed	0.463	0.270	0.086
employee - permanent	0.343	0.136	0.012
employee - fixed-term	0.147	0.167	0.379
project-based & casual work	0.420	0.247	0.090
<i>Postmaterialism index</i>	0.341	0.144	0.018
<i>Postmaterialism (quadratic)</i>	-0.027	0.010	0.007
Constant	-0.989	0.522	0.058
N	2616		