

Title: The cost of uncertainty? Life satisfaction after the transition to parenthood following uncertain fertility expectations

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Abstract: Research on unintended or unplanned pregnancies has long highlighted the adverse consequences such events can have for adults and children. In contrast, this study shifts attention from unintended fertility to fertility expectations - individuals' prospective views about whether they will have children in the future - and examines how such expectations relate to life satisfaction following the transition to parenthood. Using prospective data from the Dutch Longitudinal Internet Studies for the Social Sciences (LISS) panel, the analyses focus on respondents who were childless at panel entry but subsequently became parents. Fertility expectations were measured at the initial observation, while life satisfaction was assessed both at baseline and in the year of transition to parenthood. A conditional change score model estimates whether the change in life satisfaction differs by fertility expectations, net of partnership status, age, education, income satisfaction, personality traits, and time to transition. Preliminary results indicate that respondents with positive fertility expectations experience a significant increase in life satisfaction after becoming parents, whereas those with negative or uncertain expectations do not experience any change. These findings suggest that generalized expectations about one's future life course, reported well before parenthood, can shape how individuals experience major life transitions. Ongoing analyses will test the robustness of these associations by accounting for selection into parenthood.

Background: Research on unintended or unplanned pregnancies is understandably extensive, given the considerable adverse consequences such pregnancies can have for both adults and children. For parents-to-be, these include outcomes such as postpartum depression among mothers (Nelson et al., 2022; Qiu et al., 2020) and diminished well-being among fathers (Smith et al., 2023; Su, 2012), while for infants they are often associated with poorer health and developmental outcomes ((Nelson et al., 2022; Nguyen, 2024)). In most studies, pregnancy intentionality is assessed retrospectively - typically by asking women during pregnancy or after birth whether the pregnancy was planned. Researchers often rely on retrospective measures of wantedness because prospective assessments require substantial data collection efforts and longitudinal designs (Yeatman & Sennott, 2015).

In contrast to the extensive literature on unintended fertility, this study investigates how individuals' expectations about future childbearing relate to their life satisfaction after becoming parents. Drawing on prospective data from the Dutch Longitudinal Internet Studies for the Social Sciences (LISS) panel, it examines whether entering parenthood following negative or uncertain fertility expectations affects new parents' well-being, and whether these effects differ between mothers and fathers. Importantly, the analysis does not

address unplanned pregnancies as reported at pregnancy or birth (often associated with at-risk populations, Enthoven et al., 2022) - but rather focuses on how expectations about having children shape the parenthood experience among Dutch men and women. The unique contribution of this study lies in its focus on fertility expectations reported well before the transition to parenthood, thereby linking generalized future expectations to the ways individuals later experience major life-course transitions.

Previous research has sometimes treated the terms fertility expectations and fertility intentions as interchangeable (Gemmill, 2019; Hayford, 2009; Ni Bhrolchain & Beaujouan, 2015). Both have drawn considerable scholarly attention due to their ability to predict actual reproductive behavior (Morgan & Rackin, 2010; Ni Bhrolchain & Beaujouan, 2015; Rackin & Bachrach, 2016). Yet, as Rackin and Bachrach (2016) emphasize, the two concepts are distinct.

Fertility intentions reflect a “commitment to act” (Rackin & Bachrach, 2016, p. 531) and are typically shaped by an individual’s current social and economic circumstances. Surveys often capture them through questions anchored in specific timeframes, such as “Do you intend to have a/another child within the next three years?” as in the Generations and Gender Survey. Fertility expectations, by contrast, denote “a future state that is perceived to be most likely” (Rackin & Bachrach, 2016, p. 531). Expectations thus capture a broader life-course perspective - one’s general outlook on family and the future - rather than a concrete plan of action.

There are at least two reasons why fertility expectations warrant closer attention. First, expectations are particularly informative for younger individuals who may not yet be making specific childbearing decisions. For instance, a person might not *intend* to have children soon but may still *expect* to have them eventually. Second, theoretical perspectives suggest that expectations about the future can shape present behavior through individual agency (Elder, 1998; Weber, 1930). More specifically, positive expectations about becoming a parent may lead people to organize their lives in ways that better accommodate future children.

Competing hypotheses can be formulated whether men or women might 'benefit' more from making the transition to parenthood after having positive fertility expectations. On one hand, since women typically assume more childcare responsibilities, positive fertility expectations might be more crucial for women’s family satisfaction than for men’s. Women who expect to have children - despite the potential 'costs' of parenthood - may be better prepared for the demands of parenthood, leading to higher satisfaction. On the other hand, societal norms often dictate that women should naturally desire parenthood, meaning their fertility expectations might be less carefully weighed against the realities of parenthood. This could

imply that positive fertility expectations may be less 'protective' for women's family life satisfaction than for men's.

Data and measures: The analyses presented here draw on data from the Longitudinal Internet Studies for the Social Sciences (LISS) panel, operated by CentERdata at Tilburg University, the Netherlands (<https://www.dataarchive.lissdata.nl>). LISS is based on a true probability sample of independent private households. The sample frame utilized is the nationwide address database maintained by Statistics Netherlands. Panel members (approximately 5,000 individuals of 16 years and older) complete online surveys each month, and annually they answer core questionnaires covering domains such as family and household composition, personality, and financial circumstances. Participants receive financial compensation for their participation. Data collection began in October 2007 and is ongoing. On average, about 12% of respondents drop out each year, and new participants are periodically recruited to offset attrition. Comprehensive information on the LISS design, response rates, and attrition can be found in Scherpenzeel (2009, 2011), Scherpenzeel and Bethlehem (2011), and Scherpenzeel and Das (2011).

The analytical sample for this contribution is limited to participants who were not parents at the entry into the panel, experienced the transition to parenthood, and participated in at least two waves of the panel. Selecting on these conditions resulted in an initial sample of 834 participants (55.9% female). These individuals were on average 27.46 years old when they entered the panel (and declared their fertility expectations for the first time) and 32.23 years old when they made the transition to parenthood. In other words, there was – on average – a period of about 4.7 years between the first observation of the participants and their transition to parenthood.

The outcome of interest in this work is life-satisfaction, captured through the question *How satisfied are you with the life you lead at the moment?* and rated on a scale from 0 to 10, with a higher value representing higher life satisfaction. I focus on the responses provided at the entry into the panel (when the fertility expectations are reported) and in the year of the parenthood transition.

The key independent variable - fertility expectations - was measured at respondents' entry into the panel. Participants were asked: *“Do you think you will have [more] children in the future?”* with response options “Yes,” “No,” and “Unsure.” The question was presented only to women aged 45 or younger and men aged 50 or younger. At first observation, the majority of the individuals who transitioned to parenthood expected to have children in the future (79%).

In the analysis, I control for partnership status, age, educational attainment, and self-reported satisfaction with income at the first observation (when fertility expectations are reported). I also include controls for respondents' personality traits. These traits are measured using self-reported data from the annual LISS module *Personality*, which contains the 50-item version of the IPIP Big Five inventory (Goldberg, 1992). The inventory captures five broad personality dimensions: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. Finally, a control variable is entered which captures the time between the first observation and the year of transition to parenthood.

Analytical approach: The main statistical model for the preliminary results displayed here consists of a conditional change score model (Allison, 1990). The dependent variable is measured as a change score whereby the life satisfaction response at the entry into the panel is subtracted from the response in the transition to parenthood. To control for the occurrence of regression to the mean due to floor and ceiling effects, the entry value is introduced as a control variable. This makes the model equivalent to the regressor variable method (Allison, 1990). In subsequent steps, a Heckman selection model will be applied to account for the selection into parenting.

Preliminary results: Tables 1 and 2 present descriptive statistics for the key variables. As shown in Table 1, only a small number of respondents became parents after reporting negative fertility expectations at panel entry. Because of this limited group size, respondents with negative and uncertain expectations were merged into a single category. Table 2 shows that individuals with positive fertility expectations differed significantly from those in the no/unsure group on nearly all indicators of interest. Notably, they reported higher life satisfaction both at the start of the panel and in the year they transitioned to parenthood.

Results from the preliminary analyses indicate that, after controlling for all covariates, the change in life satisfaction from panel entry to the year of transition to parenthood differed significantly between respondents with positive and those with negative or uncertain fertility expectations ($\beta = -0.29$, $SE = 0.13$, $p = .04$). Figure 1 illustrates the predicted change in life satisfaction from panel entry to the year of transition to parenthood. Respondents with negative or uncertain fertility expectations showed no significant change in life satisfaction, whereas those with positive expectations experienced a significant increase. The results do not differ for men and women. Subsequent analyses will examine the robustness of these findings after accounting for selection into parenthood.

Table 1. Descriptive statistics for analytical sample

	<i>M</i>	<i>SD</i>
Expectations to have a child in the future		
Yes	0.79	
No	0.05	
Unsure	0.16	
Life satisfaction at transition (range 0-10)		
Controls at first observation		
Life satisfaction (range 0-10)	7.49	1.33
Age	27.46	6.33
Educational level (range 1-6)	4.05	1.46
Satisfaction with income (range 0-10)	6.44	1.75
Female	0.56	
Has a partner	0.79	
Extraversion (range 1-5)	3.37	0.66
Agreeableness (range 1-5)	3.87	0.52
Conscientiousness (range 1-5)	3.65	0.54
Emotional stability (range 1-5)	3.16	0.56
Openness to experiences (range 1-5)	3.62	0.47
Time between first observation and transition	4.71	3.54

Table 2. Descriptive statistics, split by fertility expectations at entry into the panel

	Expectations	No expectations / unsure
Life satisfaction at transition (range 0-10)*	7.66 (1.29)	7.13 (1.64)
Controls at first observation		
Life satisfaction (range 0-10)*	7.58 (1.23)	7.14 (1.62)
Age*	26.75 (5.47)	30.19 (8.37)
Educational level (range 1-6)*	4.15 (1.44)	3.71 (1.47)
Satisfaction with income (range 0-10)*	6.53 (1.66)	6.11 (2.04)
Female*	0.47	0.58
Has a partner*	0.84	0.57
Extraversion (range 1-5)	3.39 (0.67)	3.28 (0.61)
Agreeableness (range 1-5)*	3.88 (0.53)	3.79 (0.51)
Conscientiousness (range 1-5)*	3.68 (0.54)	3.56 (0.54)
Emotional stability (range 1-5)	3.16 (0.56)	3.16 (0.53)
Openness to experiences (range 1-5)*	3.64 (0.47)	3.53 (0.46)
Time between first observation and transition*	4.52 (3.44)	5.42 (3.81)

Note. * denotes significant differences between the two groups at $p < .05$

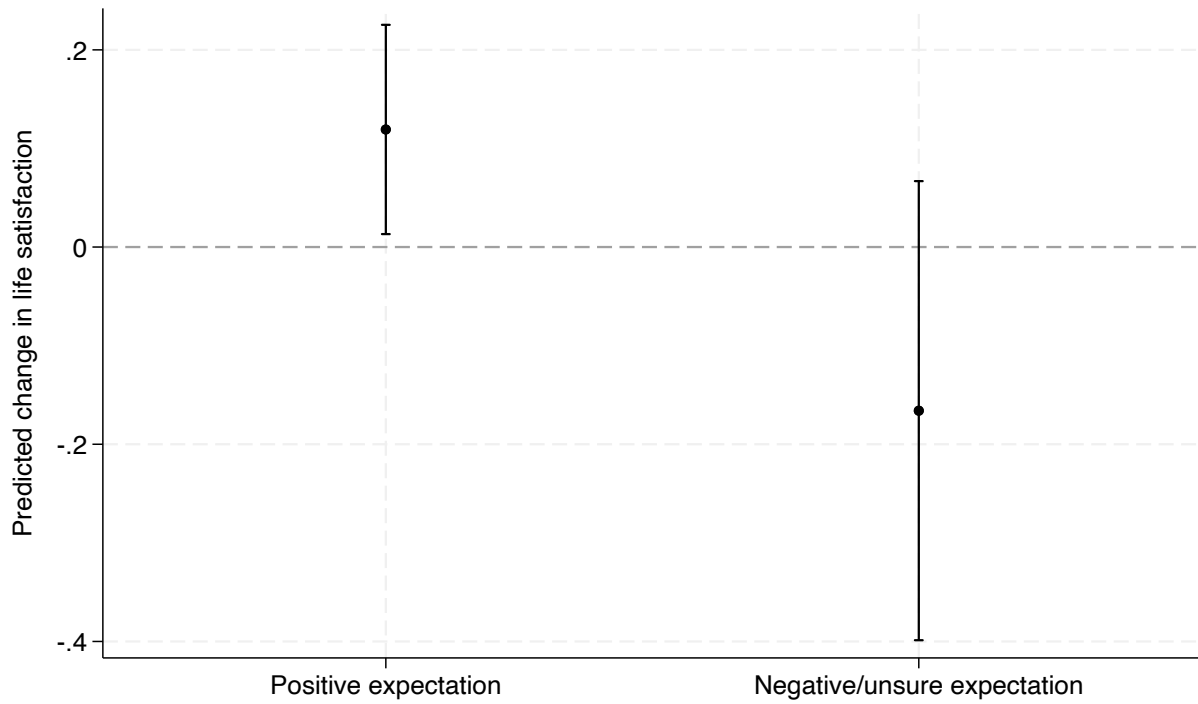


Figure 1. Predicted change in life satisfaction from panel entry to the year of transition to parenthood, by fertility expectations (positive vs. negative/unsure). Predictions are based on the fully adjusted model.

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