Title:

The Impact of Narratives of the Future on Fertility Intentions in Norway

Trude Lappegård, University of Oslo. P.b. 1096 Blindern, 0317 Oslo, Norway. Email: trude.lappegard@sosgeo.uio.no.
Axel Peter Kristensen, University of Oslo. P.b. 1096 Blindern, 0317 Oslo, Norway. Email: a.p.kristensen@sosgeo.uio.no.
Lars Dommermuth, Statistics Norway. P.b. 2633 St. Hanshaugen, 0131 Oslo, Norway. Email: lars.dommermuth@ssb.no.
Alessandra Minello, University of Padova. Via C. Battisti, 241, 35121 Padova. Email: alessandra.minello@unipd.it.
Daniele Vignoli, University of Florence. Viale GB Morgagni 59, 50134 Florence. Email: daniele.vignoli@unifi.it.

Acknowledgment:

This work was supported by the Research Council of Norway project No. 300870 ("Falling fertility and rising social inequalities") and project No. 287634 ("The puzzle of the recent fertility decline") and the European Union's Horizon 2020 research and innovation program/ERC Consolidator Grant Agreement No. 725961 (EU-FER project "Economic Uncertainty and Fertility in Europe," PI: Daniele Vignoli). We are grateful for valuable comments from anonymous reviewers and the editor. The findings and views reported in this article are those of the authors alone.

Running head:

Narratives of the Future and Fertility Intentions

THE IMPACT OF NARRATIVES OF THE FUTURE ON FERTILITY INTENTIONS IN NORWAY

Abstract

Objective: This study examines the effect of exposure to different economic narratives of the future on fertility intentions of Norwegian couples. **Background**: Fertility patterns should not only be interpreted in relation to economic uncertainty conceptualized as objective constraints. One should also consider that subjective narratives of economic uncertainty may have a significant role in fertility decision making. **Method**: Data was collected from a controlled laboratory experiment of both partners in heterosexual couples in fall 2019 in Oslo, Norway (N=838). The participants were randomly assigned to read either a negative or a positive future economic scenario, while a control group was not assigned to any scenario. **Results**: The economic scenarios influenced couples' fertility intentions, with the negative scenario causing a clear decrease in fertility intentions and the positive scenario causing an increase in fertility intentions. Men and women responded in similar ways to the scenarios. The effect of exposure to the scenarios is not moderated by objective measures such as couple employment status and income, except in one case. **Conclusion**: Our experimental setting demonstrates that people's fertility intentions are shaped by their subjective view of the future economic situation.

Keywords: couples, economics, demography, fertility

Introduction

Low fertility is a concern in many societies and in the scientific discourse, economic uncertainty has emerged as one of the main potential causes for decreasing and low fertility levels. The general argument for this relationship is that people experiencing economic uncertainty will avoid having children until their situation is more stable. Economic uncertainty often emerges when individuals lack a steady income or find themselves in an unstable employment situation. Individual employment situation, income, and national or regional unemployment rates are well-established objective measures of economic uncertainty (van Wijk et al., 2021). In line with these considerations, economic uncertainty has been demonstrated to have a negative impact on people's fertility behavior, with a magnitude that differs over time and between countries (Alderotti et al., 2021; Kreyenfeld, 2010, 2016; Kreyenfeld et al., 2012; Kristensen, 2019; Vignoli, Tocchioni, et al., 2020).

However, focusing on such objective measures has two major limitations. Firstly, they disregard how individuals themselves perceive their situation or the context in which they act. Full-time employees in a fixed position may perceive that their job situation is highly unsecure due to various reasons, due, for example, to the instability of the company they work for. Secondly, such indicators only reflect the current and past situation and cannot indicate how individuals anticipate future developments. This includes both their own situation, but also the perception of the future development of the job market and economy. In this sense, fertility decisions are a result of a mere "shadow of the past". Based on the Narrative Framework (Vignoli, Bazzani, et al., 2020; Vignoli et al., 2020) however, one argues that they are also based on "narratives of the future". Meaning that people will consider a sum of structural constraints based on their current situation and past experiences when contemplating childbearing, in addition to their own subjective narrative of what the future will be like. Consequentially, this could mean that those expecting future societal economic

decline may have lower fertility intentions - despite currently being in a safe employment situation and having a steady income.

Here, we examine whether economic narratives of the future influence fertility intentions among couples in Norway. We focus on couples because the choice of having a child is a process where both the members of the couple play a role (Stein et al., 2014). Using an experimental design, exposing couples to either a positive or a negative economic scenario, we investigate whether exposure to these scenarios affects the fertility intentions of couples. We also explore whether men and women respond to the economic scenarios in different ways. A gender perspective is necessary, even as gender equality is increasing in most industrialized countries and economically providing for the family is becoming a more joint responsibility between genders, no country has reached full gender equality. This is also the case in Norway, although gender equality is in general high. In addition, we explore whether the effects of the economic scenarios on fertility intentions are moderated by couples' employment status and financial situation. For couples who want children, the ability to live independently and provide economically for themselves and their family is crucial. Depending on their current situation, their fertility response to the economic scenarios could differ. For our study, couples were randomly assigned to one of two economic scenarios or to a control group that received no scenario. Thus, our study design allows for causal interpretation of exposure to the two economic scenarios on fertility intentions among the participants. To the degree that exposure to different economic scenarios affects reported fertility intentions, we can assume that couples and individuals link childbearing with their narratives of the economic future.

We use fertility intentions to measure fertility in our study. Following the Traits-Desires-Intentions-Behavior model (TDIB) developed by Miller (1994), childbearing follows a sequence of motivational traits and desires which forms the basis for intentions, which then

results in behavior. Desire is described as what one would like to do if there were no situational constraints, while intentions are the actual plan within the reality one normally operates (Miller et al., 2004). In this study the participants are asked to form a plan within a manipulated situation which is the future economic situations described in the scenarios.

This study contributes to the literature in three ways: firstly, the experimental design provides us with strong internal validity to causal claims on the impact of economic uncertainty on fertility (intentions); secondly, examining fertility intentions from a couple perspective advances the knowledge on the role of both partners on fertility intentions. Thirdly, that the question of whether economic narratives influence fertility intentions is studied through a gender lens provide us with insights on whether the impact of economic uncertainty on fertility differ among men and women.

The Norwegian context

Norway is an interesting country in which to explore the relationship between economic uncertainty and fertility. In the decade following the Great Recession in 2008, the fertility level dropped from 1.98 in 2009 to 1.53 in 2019 children per woman. This means that today, fertility levels in Norway are lower than the average European fertility level, which stands in strong contrast to the 1990s and 2000s, when fertility levels in Norway were among the highest in Europe. Although the correlation appears obvious, the strong decline in fertility over the last decade cannot solely be attributed to the Great Recession (Comolli et al., 2020). The Norwegian economy was less affected by the Great Recession than other European countries; there was no major slowdown in economic growth and unemployment rates only increased moderately, although with some regional variations. The changes in economic growth that occurred were mostly related to oil price fluctuations. By the time when the data

for this study were collected, the Norwegian economy had recovered from the crisis a decade before, general prospects were good, and unemployment rates were quite low (e.g., 3.8% in October 2019) (Statistics Norway 2020; Dølvik and Oldervik 2019).

Until the recent decline in fertility rates since 2009, Norway was known for having high fertility levels and high levels of female employment. In general, countries exhibiting high levels of female labor market participation have had the highest fertility levels in Europe in this period (Engelhardt and Prskawetz 2004; Luci-Greulich and Thévenon 2013; Goldstein, Sobotka, and Jasilioniene 2009). Gender equality in Norway is high and there has been a clear political aim to have a high proportion of women participating in the labor force – even if they have young children (Ellingsæter & Jensen, 2019). In line with this, family policies in Norway have a strong emphasis on the compatibility between employment and family life as well as gender equality, offering both a year of paid parental leave when a child is born in addition to providing affordable high-quality childcare facilities.

Although most women in Norway are employed, including mothers with young children, its gender equality level has also been described as "gender equality light" (Rønsen & Skrede 2010), i.e., high female labor market participation in combination with high degree of part-time work. In general, more men (73%) than women (67%) aged 17–74 years are part of the labor force (employed or temporarily unemployed) and a higher proportion of employed women (aged 25–54 years) work part-time (29%) compared with employed men (9%) (Statistics Norway, 2019).

Analytical framework

Objective markers of economic uncertainty, for example, position in the labor market or financial situation, are well-used predictors for fertility. Such markers are based on structural constraints and measure uncertainty related to the present or what has already happened; as

such, fertility decisions will then be viewed as a result of a "*shadow of the past*" (Beckert & Bronk, 2018; Davidson, 2010). Vignoli, Guetto et al. (2020) argues that since objective markers are based on prior or present constraints, they may not be the best proxies of perceived uncertainty. Instead, they argue that perceived uncertainty can be measured through focusing on the individual "*narratives of the future*," which are vital parts of the foundation for individual decision-making. The notion of narratives having a relationship with how people interact with the world is not new. The Thomas Theorem as laid out by Thomas and Thomas (1928) states that individuals' actions are affected by their perceptions of the situation. Implicitly, the Thomas Theorem puts more relevance to the tangible and current situation. The Narrative Framework however, focuses more strongly on perceptions of *future* situations, and argues that people rely on at least three elements to cope with a condition of uncertainty and to undertake actions in a state of fundamental uncertainty: expectations, imaginaries, and narratives (Vignoli, Bazzani, et al., 2020). Expectations are formed based on present structural and contingent constraints in which people are embedded and their past experiences. As such, they lay the foundation for imaginaries of the future, although they do not necessarily coincide with each other. Imaginaries may also deviate from what individuals expect of the future, due to human imaginative capacity. Combined, the structural constraints, expectations, and imaginaries come together and find their place in the form of narratives of the future - a less abstract level of the imaginative capacity, where they are ordered in an intelligible and actionable manner. It is at this level that narratives of the future influence fertility intentions.

In our study, we expose the participants to one of two different scenarios describing the economic future and they are asked to place themselves within the given scenario when answering questions about their fertility intentions, as if the scenario was describing a real-life future situation. The scenarios we use in the experiment are of course context-bound in the

sense that they are specific to the experiment setting, and thus we cannot draw a line between how people respond to the scenarios and how they would act in the real world. However, if the participants respond differently to the different scenarios, it shows that they link childbearing with narratives of the economic future.

We distinguish between a negative and a positive economic scenario. In the following, we formulate several hypotheses about how exposure to these scenarios may affect fertility intentions. Following the general argument behind the objective economic uncertainty and fertility relationship, more uncertainty induces people to avoid or postpone major life commitments. The outset for this argument is that having children is seen as a costly and irreversible transition. Becker's (1991) cost–benefit perspective, arguing that a couple's fertility behavior depends on whether they can afford to have children or not, is one of the most prominent representatives of this perspective. An individual who is lacking employment or a steady income may prefer to postpone decisions about having children (Kreyenfeld, 2016; Kreyenfeld et al., 2012; Vignoli et al., 2012). Thus, unemployment or economic uncertainty is likely to increase the relative cost of having children, even in countries providing welfare benefits to both unemployed and parents in general. This means that people may still experience economic uncertainty even when the welfare state provides a generous economic safety-net. This means that a scenario that describes a future with stronger economic constraints and as less secure—expecting the economy to slow down, increasing unemployment, job insecurity, and job contracts with more precarious terms—will have a negative influence on fertility intentions. We believe that that this will occur also among the participants in our study, because although the Norwegian welfare state provides an economic safety-net, people are not fully protected from economic uncertainty and relative income loss from unemployment. Access to some of the welfare benefits (e.g., parental leave benefits) are also directly linked to labor market participation which increases the importance of being

employed. At the same time, Norway is not isolated from the rest of the world and perceptions of uncertainty might have arrived via media and hence already be echoing in the readers of the negative economic scenario. In contrast, a scenario describing the economic future as more secure should positively influence reported fertility intentions as it will prevent economic uncertainty and income loss as a result of unemployment.

We thus derive the following hypotheses. *Hypothesis 1a: Exposure to a negative economic scenario will have a negative effect on fertility intentions. Hypothesis 1b: Exposure to a positive economic scenario will have a positive effect on fertility intentions.*

Although the main general argument is that economic uncertainty should decrease fertility intentions, an alternative mechanism may also come into play. Family formation may also be considered as a potentially favorable strategy and alternative to unemployment or economic uncertainty. There might be a substitution effect, in which individuals reinforce their fertility intentions, as a period of unemployment provides a convenient time slot for childrearing and providing care (Adserà, 2004; Busetta et al., 2019). In addition, the uncertainty reduction assumption proposed by Friedman et al. (1994) opens up for a potential positive correlation between uncertainty and fertility intentions. According to this assumption, individuals will always aim to reduce uncertainty. As the commitment and responsibility to a child and family will last over a long period and create from this perspective a predictable situation and future, having a child may be an adequate response to economic uncertainty.

Next, we expect differences by gender for the link between economic uncertainty and fertility intentions. The main reason for this is that negative income effects on fertility are often stronger among men than women, as men generally contribute more to the family income. As described earlier, Norway have been characterized as having “gender equality light” (Rønsen & Skrede, 2010), describing a pattern of high female labor market employment but with a

high degree of part-time work. This means that even in Norway, men might feel a stronger responsibility as economic providers than do women. Following the social role theory, which states a close connection between gender roles and actual behavior (Eagly et al., 2000), it is likely that unemployment may cause more distress in men because they face expectations to be the main economic provider in the family to a larger degree. Hence, we believe that men and women respond to the scenarios in the same way, but we expect that *the effect of exposure to the economic scenarios on fertility intentions will be stronger among men than among women (Hypothesis 2).*

Finally, objective measures of economic uncertainty, such as employment status and income, might also play a role in couple's fertility intentions and we will explore whether these moderate the effect of exposure to economic scenarios. Being able to live independently and provide a livelihood for oneself and one's family is crucial for having children. The main source of being a stable provider is stable full-time employment. As couples where only one or neither is employed are in a more vulnerable economic situation, we believe they will be more responsive to the economic context. Thus, we expect that nonworking couple's respond more negatively (i.e., with reduced fertility intentions) to a negative economic scenario and respond more positively (i.e., with reduced fertility intentions) to the positive scenario. Those experiencing an uncertain economic situation, such as being outside the labor force, are extra vulnerable to the exposure of a negative economic scenario. This "double-negative" situation results in even lower fertility intentions. Additionally, nonworking couples may be extra responsive to the exposure of a positive scenario compared with employed couples because a better future economic situation and potential employment would have a comparatively greater impact on their life situation. *Hypothesis 3: The effect of exposure to the economic scenarios on fertility intentions will be stronger among nonworking couples than among the employed.*

Although there is an obvious overlap between employment status and income, we argue that the level of income has a direct relationship with people's ability to act and capacity to choose. Economic resources are not simply a mark of poverty, wealth, or economic status, they are also crucial for agency (Neyer et al., 2013). Sen (1992) defines agency as individuals' actual capacity to act and freedom to act on their choices. Agency inequalities reflect that people face different economic difficulties, whereas agency poverty refers to restrictions in people's agency (Korpi, 2000). We believe that financial constraints prevent couples from participating and acting as they would have without such constraints, and thereby, that income moderates the effect of exposure to economic scenarios on fertility intentions. Thus, we expect that couples with more financial constraints will respond more negatively to a negative economic scenario and more positively to a positive economic scenario if they have a lower income than they would with a higher income. *Hypothesis 4: The effect of exposure to the economic scenarios on fertility intentions will be stronger among couples with lower income than among couples with higher income.*

Methods

We employed an experimental approach in this study which represents an innovation in demographic analyses using data from a laboratory experiment conducted in two computer labs in September–November 2019 in Oslo, Norway, based on the oTree platform (Chen et al., 2016). The use of experimental research varies widely across disciplines. However, experiments typically follow the form of a clinical trial where experimental units (in our case individual human beings) are randomly assigned to a treatment or control condition where one or more outcomes are assessed. From this perspective, an experiment is a procedure carried out to support, refute, or validate a hypothesis. The experiment provides insight into cause and effect by demonstrating what outcome occurs when a particular factor is manipulated. Experiments vary greatly in goal and scale, but always rely on repeatable procedure and

logical analysis of the results. The experimental protocol used in this study was developed by a multidisciplinary team comprising demographers, sociologists, social psychologists, and economists and approved by the Ethics Committee of the University of Florence (Vignoli et al., 2021).

In our study, the original sample comprised of 439 Norwegian heterosexual couples (878 participants in total) aged between 20 and 40 years (women) and 20 and 45 years (men), who were recruited from the Oslo area. The sample was recruited through an agency and based on background information they were invited to take part in the experiment. In the recruitment process the agency was asked to find participants that differed by their labor market status (each one-third of permanently employed, temporarily employed, and unemployed or outside the labor market). Additionally, participants with and without children were required to be equally represented. Although the sample is not representative of the total population, the population quotas provide a meaningful representation of the population segment important for this study. In the recruitment process, participants were informed that they would be taking part in a study about their life situation and daily routines among couples. To participate both partners were required to be physically present at campus at University of Oslo at a specific time. The participants were told that they would be given a gift certificate in return for their participation in the study. Each partner in a couple answered the questionnaire separately, but at the same time in two separate computer labs.

The sample for this study includes 382 couples (764 participants) which means that 57 couples (114 participants) were deleted from our sample. 20 couples (40 participants) were deleted as they were not exposed to the same scenario because of a technical error. As we only include couples that are living together, 37 couples (74 participants) were deleted because they both or one of them reported that they were not living together.

Before the survey started, the couples were randomly assigned to one of three groups. When the survey started, two groups were asked to first read a text describing a potential future economic scenario in Norway (Figure 1a, b), while the third group did not read anything before filling out the questionnaire. The economic scenarios portrayed either a negative or a positive future economic scenario and functioned as the treatment in our study. The group that did not read any text acted as the control group. The text was designed as part of the experimental protocol (Vignoli et al. 2021) and was tested in a pilot study before finalized.

(Figure 1a, b about here)

The two treatment groups were asked to actively imagine themselves being in the given scenario before answering the fertility intention question. Fertility intentions for the next three years were measured on a scale from 0 to 10, where "0" is "definitely not" intending to have a child and "10" is "definitely yes" intending to have a child. Such a fine-tuned scale allows for individual differences in the level of precision and thus captures both the direction of the fertility intention as well as its intensity (MacCallum et al., 2002). Table 1 shows the average response scores to this question on fertility intentions for couples (hers + his /2) and the individual response for men and women separately divided by the two treatment groups and the control group. Overall, the average response score in fertility intentions is 4.5 for couples and slightly lower among men (4.3) than among women (4.6). Regarding the three groups, those assigned to the positive scenario on average express higher fertility intentions (5.4 for couples), while those assigned to the negative scenario express lower fertility intentions (3.3 for couples). The control group scores were somewhere between the two groups exposed to an economic scenario (4.5 for couples).

(Table 1 about here)

Using linear regression models, the effect of exposure to the economic scenarios on the fertility intention was estimated for couples and for men and women separate. The results showed whether the scenarios played a defining role in setting couple's fertility intentions and whether its effect differed between men and women. We were especially interested in seeing whether objective markers of economic uncertainty, that is, employment and income, moderated the effect of exposure to the scenarios. For this purpose, we created a variable reflecting couple's employment status (both employed, only she employed, only he employed, and none employed), based on questions regarding their employment, activity last week, and current employment contract. For each participant, we separate between employed and the not employed. The group of employed is a combination of those in permanent positions, temporary positions and those who are self-employed. The group of not employed is thus a mixture of students (67%), unemployed (13%), social welfare recipients (7%), homemakers (1%), and others (12%). Students who also report that they have part-time work are placed with other students in the not employed group. It is common in Norway that full-time students also have part-time work in addition. This is often low-paid work and not work they continue in when their educational training is completed.

Based on the reported income from the previous month either from work or other sources, we created a variable of couples (hers + his) total income. Using the EU60-scale, low income is defined as income equal or below 60% of median income for childless couples in 2019 in Norway (Statistics Norway, 2021). Higher income is defined as income equal or higher than 140% of median income for childless couples in 2019 in Norway while medium is those with income in between. As men and women may contribute differently to the total income, we also include a control variable on the income difference within the couple. In accordance with the literature (Kulic et al., 2020), this is measured as her share of the couple's total income. In addition, we control for several sociodemographic characteristics of the participants and the

couples in our models. We include two measures of age within the couple. As couples' fertility intentions are more dependent on her age, we include her age and her aged squared. In addition, we include a variable of the age difference within the couple, same age (including one-year age difference), he older (2 year or more), and she older (2 year or more). As a small share of the couples consisted of partners where one had children and the other was childless (17 couples), we use information of the female partner to create a variable of age of the youngest child. We did this because on average, a larger proportion of children live with their mother when parents split up and one could assume that couple's fertility intentions to a larger extent is influenced by the age of her children. The variable separates between "no children", "youngest child 0-1 years", "youngest child 2-5 years", and "youngest child 6+ years". Couples' educational attainment is measured in four categories; both partners have lower education (compulsory and secondary), both partners have higher education (Bachelor, Master and PhD), only she has higher education, and only he has higher education. Table 2 presents the descriptive statistics for all the variables included in our models. We use an imputation command in Stata to impute missing observations for independent variables (only 2 observations for the variable couple's employment status).

(Table 2 about here)

Results

Our analysis consists of three parts. First, we tested whether exposure to future economic scenarios affected fertility intentions for couples as well as for men and women separately. Second, we tested whether there were gender differences in the exposure to future economic scenarios. Third, we tested whether the effect of exposure to the scenarios on fertility intentions was moderated by employment and income.

(Table 3 about here)

Table 3 shows the estimates from our linear regression models for couples as well as for men and women separately. Couples who read the negative economic scenario reported lower fertility intentions, while those who read the positive scenario reported higher fertility intentions. The effect of exposure to the negative scenario was stronger than the effect of exposure to the positive scenario. The estimates were compared with those of the control group, where the participants did not read any scenario before answering the survey. If we changed the reference group and directly compared the effect of exposure to the two scenarios, the difference was significant. The results from the separate models for men and women were similar as for couples. Thus, we found that there is an effect of exposure to future economic scenarios on fertility intentions. This supports Hypothesis 1a, which stated that exposure to a negative economic scenario will have a negative effect on fertility intentions. We can also say that the results support Hypothesis 1b, which stated that exposure to a positive economic scenario will have a positive effect on fertility intentions.

(Table 4 about here)

The results from the separated models for men and women (Table 3) indicated that the effect of the scenarios was similar among men and women. To verify this, we ran a model including both genders, but with an interaction variable between gender and the scenarios (Table 4). The estimates showed no gender differences in how the scenarios affected individuals' fertility intentions. Thus, we did not find support for Hypothesis 2, which stated that the effect of exposure to the economic scenarios on fertility intentions will be stronger on men than on women.

(Table 5 about here)

We were also interested in whether the effect of exposure to the scenarios was moderated by couples' employment status and income. Table 5 shows the results from testing whether the

effects of exposure to the scenarios on fertility intentions was moderated by couples' employment status when including an interaction variable between the economic scenarios and the employment status. For couples, there was a negative interaction effect between reading the negative scenario and couples where only she is employed. This means that couples where only she is employed who read the negative scenario, experienced a more substantial decrease in fertility intentions, compared to fully employed couples reading the same scenario. We found a similar interaction effect when looking at men and women separately, but for men it was only statistically significant at a 10% level. When we changed the reference group and compared couples exposed to the two scenarios directly with each other, there were no statistically significant interaction effects. The cell size for the interaction between exposure to the negative scenario and only she is employed was small and only counts 10 couples (see supplement table 1). As this may reduce reliability of the estimate, we should be cautious in making a strong interpretation. Overall, we found no support for Hypothesis 3, which stated that the effect of exposure to the economic scenarios on fertility intentions will be stronger among nonworking couples than among the employed. Instead, the effect of exposure to the negative economic scenarios was stronger among couples where only she was employed.

(Table 6 about here)

Table 6 shows results from testing whether the effects of exposure to the economic scenarios on fertility intentions was moderated by couples' income, using an interaction variable between the economic scenarios and income. The results show that there was no interaction effect for couples or for men and women separately. We got the same results when we changed the reference group and compared the effect of exposure to the two scenarios directly. Hypothesis 4 stated that the effect of exposure to the economic scenarios on fertility

intentions will be stronger among couples with lower income than among those with higher income. This hypothesis is not supported by our results.

We carried out several sensitivity tests to check the robustness of our results. Firstly, employment and income are two objective measures of economic uncertainty that were included as control variables in the main model, and we tested whether the effects of exposure to the scenarios were moderated by the two measures. As they were correlated, we ran the models leaving each of the measures out one at a time. All effects of exposure to the scenarios and the interaction effects remained the same. Secondly, the fine-tuned fertility intention variable we used in this study makes it possible to capture both direction and intensity of people's fertility intentions, but we cannot disentangle the two aspects in our models. To test, we ran all models including a dichotomous variable of fertility intentions dividing between 0–5 (negative fertility intention) and 6–10 (positive fertility intention) instead of the scale ranging from 0 to 10. The main effects of exposure to economic scenarios on fertility intentions remained the same. Lastly, the decision-making process may vary by parity and especially there might be a difference between the intention to become a parent for the first time and to have another child. To test whether the effect of the exposure to the scenarios differed for couples with and without children (based on information on the female partner), we ran separate models for the two groups. For childless couples, only the effect of exposure to the negative scenario was statistically significant, and for parents only the effect of exposure to the positive scenario was statistically significant. The interaction effects of the exposure to the negative scenario and only she is employed was only statistically significant among childless.

Discussion

This study addressed whether economic narratives influence fertility intentions of couples, men and women in Norway using an experimental design and considering their objective

economic profiles. The couples participating in our study were randomly placed in one of three groups in which the first group read a positive economic scenario, the second group read a negative economic scenario, and a third group did not read any scenario before answering the survey. The economic scenarios functioned as the treatment, and the group not reading any scenario acted as a control group. The study design allows for causal interpretation of the exposure to the two economic scenarios on reported fertility intentions among the participants. Although our lab experiment involved many more participants than is usually the case in this type of study, the sample is not representative of the Norwegian population, thereby limiting the external validity of the findings.

Our results clearly show that the two economic scenarios affected reported fertility intentions both among couples and among men and women separately. Negative and positive scenarios resulted in lower or increased fertility intentions, respectively, which suggests that pessimistic economic narratives of the future negatively affect fertility intentions, while more optimistic narratives of the future positively affect fertility intentions. Interestingly, exposure to the negative scenario had a stronger negative effect on fertility intentions compared with exposure to the positive scenario and its positive effect on fertility intentions. This might be related to the economic situation in Norway at the time when the experiment was conducted. That is, unemployment rates were below 4% and the general labor market was in good condition (Statistics Norway, 2020). Additionally, the Norwegian welfare system accommodates young men and women with generous economic welfare policies when they decide to have children. One could argue that when people have become accustomed to living in a stable and secure economy, having positive expectations related to one's own future may be more ordinary, and that reading an optimistic narrative of the future which depicts a future not much different from what one is already experiencing, may thus have less of an impact in this context as the narrative does not promise much beyond what is already the present

condition. From this perspective however, exposure to the negative scenario may provide more room to react than the positive scenario does, as it depicts a future situation which diverges more from people's current conditions in Norway. This would lead to the negative scenario having a stronger effect on fertility than the positive scenario.

In addition to couple's fertility intention, we investigated the effects of exposure to economic scenarios on fertility intentions through a gender lens. Childbearing influences the lives of both men and women, and in Norway, both men and women are expected to provide economically for their family, also when they have young children. Although gender equality is high in Norway, gender differences persist in labor market participation, and this gave us reason to believe that the effect of exposure to economic scenarios may differ between men and women. Contrary to our assumptions, when comparing the results for men and women, we found no gender differences in how the economic scenarios influence fertility intentions. One explanation may be that Norway has reached a level of gender equality at which men and women feel a similar responsibility to provide for the family economically and where economic uncertainty may cause similar distress.

Further, we were interested in whether the effect of exposure to the economic scenarios on reported fertility intentions is moderated by employment and income. Our results did not show such a link to the degree that we expected, and not in the direction we anticipated. For couples, employment did have a moderating effect on exposure to the economic scenarios on fertility intentions. That is, couples where only the female partner were employed responded in a more negative way to the negative scenario than couples where both were employed. Based on previous findings and theoretical arguments, we expected that couples already in an uncertain employment situation would be more sensitive and "vulnerable" to economic uncertainty, and that they would be more likely to lower their fertility intentions when exposed to a negative narrative. We also expected that the same group of people would be

extra responsive to exposure to a positive scenario because the promise of a better future economic situation implies a better chance of becoming employed or bettering the current economic situation. This is thought to have greater importance among those with an uncertain employment situation.

As discussed above, we should be cautious in interpreting the negative interaction effect between exposure to the negative scenario and couples where only the female partner is employed due to small cell size. With caution, the negative interaction effect could be seen as an indirect confirmation of men's importance of men's economic stability in the couple. This would be in line with the social role theory, which argues that men's unemployment may be cause to more distress as men to a larger degree face expectations to being the main economic provider in the family. Although both men and women in Norway actively participate in providing economically for the family, gender equality is not complete and a stronger responsibility for providing economically for the family may implicitly befall the male partner. Thus, couples where only she is employed may be more sensitive to the prospects of more economic uncertainty.

Financial constraints may prevent people from participating and acting as they would like to, independent of their employment status. When individual agencies were limited by low income, we expected couples to react more negatively to the negative economic scenario than if they had higher income and more freedom to act. We also expected that promises of a better future economic situation would be of greater importance for couples with stronger financial constraints. That we do not find such effects suggests that perceptions of the economic future affect couple's fertility intentions independent of their current income situation. A reason for this could be related to the economic safety-net provided by the Norwegian welfare state which lowers the relative cost of having children both among non-employed and employed couples.

To conclude, our study demonstrates that perceived economic uncertainty about the future affects people's fertility intentions. A well-known finding in the literature is that objective measures of economic uncertainty affect people's fertility behavior negatively, namely through loss of employment or income, or low levels of the latter. Independent of such objective measures, our study shows that prospects of a future with stronger economic constraints and a less secure influence couples' fertility intentions negatively, while prospects of a future with less economic constraints and more security have a positive influence on their fertility intentions. The main picture painted by our study is also that the effect of these perceptions is not moderated by objective measures such as employment status and income. These findings suggest that people's fertility intentions are not only the sum of their current situation or their past, but well as much how they view the future.

Our study has several limitations. First, the experimental design allows for casual interpretation of the effect of exposure to the economic scenarios on fertility intentions, but only for the participants in the study. As we do not have a representative sample, we cannot draw conclusions beyond our sample recruited from Oslo area. Moreover, the limited sample sizes restrict the possibilities for further distinguishing between subgroups. Second, we have only included individuals in a relationship. There is inequality in entering partnerships (Wiik & Dommermuth, 2014), and by only focusing on couples, we exclude individuals having difficulties finding partners due to economic disadvantages and potentially being more responsive to economic uncertainty. However, given that having a partner is often considered a precondition for the formulation of fertility intentions, one could argue that including only individuals in a relationship allows for a focus on aspects directly related to the decision-making process.

With its experimental design, this study has used a novel approach to investigate fertility intentions. It is important to address the issue of economic uncertainty to understand the

reasons for low fertility levels in modern society. Economic uncertainty has been conceptualized in different ways, most often relying on measures of individuals' current or past conditions. Following recent recommendations in fertility studies (Vignoli et al., 2020), this study provides us with new insights into how individuals link childbearing to economic narratives of the future. Such insights may be useful to improve our understanding of the relationship between economic uncertainty and fertility in postindustrial societies.

References

Adserà, A. (2004). Changing fertility rates in developed countries. The impact of labor market institutions. *Journal of Population Economics*, *17*(1), 17–43. https://doi.org/10.1007/s00148-003-0166-x

Alderotti, G., Vignoli, D., Baccini, M., & Matysiak, A. (2021). Employment Uncertainty and Fertility: A Network Meta-Analysis of European Research Findings. *Demography, Online first*. https://econpapers.repec.org/paper/fireconom/wp2019_5f06.htm

Becker, G. S. (1991). *A treatise on the family*. Harvard University Press.

Beckert, J., & Bronk, R. (2018). An introduction to uncertain futures. In J. Beckert & R. Bronk, *Uncertain futures: Imaginaries, narratives, and calculation in the economy*. Oxford University Press.

Busetta, A., Mendola, D., & Vignoli, D. (2019). Persistent joblessness and fertility intentions. *Demographic Research*, *40*, 185–218. https://doi.org/10.4054/DemRes.2019.40.8

Chen, D. L., Schonger, M., & Wickens, C. (2016). oTree—An open-source platform for laboratory, online, and field experiments. *Journal of Behavioral and Experimental Finance*, *9*, 88–97. https://doi.org/10.1016/j.jbef.2015.12.001

Comolli, C. L., Neyer, G., Andersson, G., Dommermuth, L., Fallesen, P., Jalovaara, M., Jónsson, A. K., Kolk, M., & Lappegård, T. (2020). Beyond the Economic Gaze: Childbearing During and After Recessions in the Nordic Countries. *European Journal of Population*. https://doi.org/10.1007/s10680-020-09570-0

Davidson, P. (2010). Risk and uncertainty. In R. Skidelsky & C. . R. Wigstrom, *The economic crisis and the state of economics* (pp. 13–29). Palgrave MacMillan.

Dølvik, J. E., & Oldervik, J. (2019). Averting crisis through coordination and Keynesian welfare policies. In *Stefan Ólafsson, Mary Daly, Olli Kangas O, and Joakim Palme*

(eds.). Welfare and the Great Recession: A Comparative Study (pp. 210–227). Oxford University Press.

Eagly, A. H., Wood, W., & Diekman, A. B. (2000). Social Role Theroy of Sex Differences and Similarities: A Current Appraisal. In *In Thomas Eckes and Hanns M. Trautner (Eds.),The developmental social psychology of gender* (pp. 123–174). Mahwah, NJ: Erlbaum.

Ellingsæter, A. L., & Jensen, R. S. (2019). Politicising Women's Part-Time Work in Norway: A Longitudinal Study of Ideas. *Work, Employment and Society*, *33*(3), 444–461. https://doi.org/10.1177/0950017018821277

Engelhardt, H., & Prskawetz, A. (2004). On the Changing Correlation between Fertility and Female Employment over Space and Time. *European Journal of Population / Revue Européenne de Démographie*, *20*(1), 35–62. JSTOR.

Friedman, D., Hechter, M., & Kanazawa, S. (1994). A Theory of the Value of Children. *Demography*, *31*(3), 375–401. JSTOR. https://doi.org/10.2307/2061749

Goldstein, J., Sobotka, T., & Jasilioniene, A. (2009). The End of "Lowest-Low" Fertility? *Population and Development Review*, *35*(4), 663–699. https://doi.org/10.1111/j.1728-4457.2009.00304.x

Korpi, W. (2000). Faces of Inequality: Gender, Class, and Patterns of Inequalities in Different Types of Welfare States. *Social Politics: International Studies in Gender, State & Society*, *7*(2), 127–191. https://doi.org/10.1093/sp/7.2.127

Kreyenfeld, M. (2010). Uncertainties in Female Employment Careers and the Postponement of Parenthood in Germany. *European Sociological Review*, *26*(3), 351–366. https://doi.org/10.1093/esr/jcp026

Kreyenfeld, M. (2016). Economic Uncertainty and Fertility. In K. Hank & M. Kreyenfeld (Eds.), *Social Demography Forschung an der Schnittstelle von Soziologie und*

Demografie (pp. 59–80). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-11490-9_4

Kreyenfeld, M., Andersson, G., & Pailhé, A. (2012). Economic Uncertainty and Family Dynamics in Europe: Introduction. *Demographic Research*, *S12*(28), 835–852. https://doi.org/10.4054/DemRes.2012.27.28

Kristensen, A. P. (2019). *Arbeidsledighet og fruktbarhet—En kvantitativ studie av betydningen av individuell og aggregert arbeidsledighet for kvinner og menn sin fruktbarhetsatferd*. https://www.duo.uio.no/handle/10852/69833

Kulic, N., Minello, A., & Zella, S. (2020). Manage Your Money, Be Satisfied? Money Management Practices and Financial Satisfaction of Couples Through the Lens of Gender. *Journal of Family Issues*, *41*(9), 1420–1446. https://doi.org/10.1177/0192513X19891463

Luci-Greulich, A., & Thévenon, O. (2013). The Impact of Family Policies on Fertility Trends in Developed Countries. *European Journal of Population / Revue Européenne de Démographie*, *29*(4), 387–416. https://doi.org/10.1007/s10680-013-9295-4

MacCallum, R. C., Zhang, S., Preacher, K. J., & Rucker, D. D. (2002). On the practice of dichotomization of quantitative variables. *Psychological Methods*, *7*(1), 19–40.

Miller, W. B. (1994). Childbearing motivations, desires, and intentions: A theoretical framework. *Genetic, Social, and General Psychology Monographs*, *120*(2), 223–258.

Miller, W., Severy, L., & Pasta, D. (2004). A framework for modelling fertility motivation in couples. *Population Studies*, *58*(2), 193–205.

Neyer, G., Lappegård, T., & Vignoli, D. (2013). Gender Equality and Fertility: Which Equality Matters? *European Journal of Population / Revue Européenne de Démographie*, *29*(3), 245–272. https://doi.org/10.1007/s10680-013-9292-7

Rønsen, M., & Skrede, K. (2010). Can public policies sustain fertility in the Nordic countries?: Lessons from the past and questions for the future. *Demographic Research*, *22*(13), 321–346.

Sen, A. (1992). *Inequality reexamined*. Harvard University Press.

Statistics Norway. (2019). *På stedet hvil: Kvinner dominerer offentlig sektor, menn privat sektor*. https://www.ssb.no/arbeid-og-lonn/artikler-og-publikasjoner/pa-stedet-hvil-kvinner-dominerer-offentlig-sektor-og-menn-privat

Statistics Norway. (2020). *Registrerte arbeidsledige (number of unemployed)*. https://www.ssb.no/arbeid-og-lonn/statistikker/regledig/aar

Statistics Norway. (2021). *09593: Low income limits in NOK (annual income), based on distances to the median income. After tax income, by household type 2009 - 2019-PX-Web SSB*. SSB. https://www.ssb.no/en/system/

Stein, P., Willen, S., & Pavetic, M. (2014). Couples' fertility decision-making. *Demographic Research*, *S16*(63), 1697–1732. https://doi.org/10.4054/DemRes.2014.30.63

Thomas, W. I., & Thomas, D. S. (1928). *The child in America: Behavior problems and programs*. Knopf.

van Wijk, D. C., de Valk, H. A. G., & Liefbroer, A. C. (2021). Temporary Employment and Family Formation: An Income or Insecurity Effect? *European Sociological Review*, *jcab007*. https://doi.org/10.1093/esr/jcab007

Vignoli, D., Bazzani, G., Guetto, R., Minello, A., & Pirani, E. (2020). Uncertainty and Narratives of the Future. A Theoretical Framework for Contemporary Fertility. In *R. Schoen: Analyzing Contemporary Fertility* (pp. 25–74). Springer Netherlands.

Vignoli, D., Drefahl, S., & De Santis, G. (2012). Whose job instability affects the likelihood of becoming a parent in Italy? A tale of two partners. *Demographic Research*, *26*, 41–62. https://doi.org/10.4054/DemRes.2012.26.2

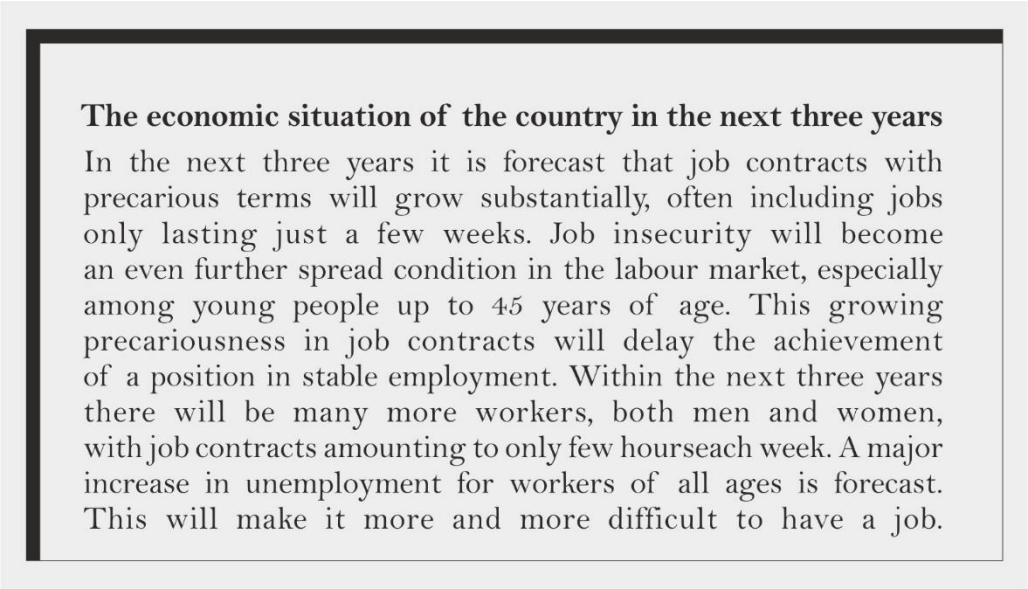
Vignoli, D., Guetto, R., Bazzani, G., Pirani, E., & Minello, A. (2020). A reflection on economic uncertainty and fertility in Europe: The Narrative Framework. *Genus*, *76*(28).

Vignoli, D., Minello, A., Bazzani, G., Matera, C., & Rapallini, C. (2021). *Economic Uncertainty and Fertility Intentions: The Causal Effect of Narratives of the Future*. 30.

Vignoli, D., Tocchioni, V., & Mattei, A. (2020). The impact of job uncertainty on first-birth postponement. *Advances in Life Course Research*, *45*, 100308. https://doi.org/10.1016/j.alcr.2019.100308

Wiik, K. A., & Dommermuth, L. (2014). Who Remains Unpartnered by Mid-Life in Norway? Differentials by Gender and Education. *Journal of Comparative Family Studies*, *45*(3), 405–424. https://doi.org/10.3138/jcfs.45.3.405

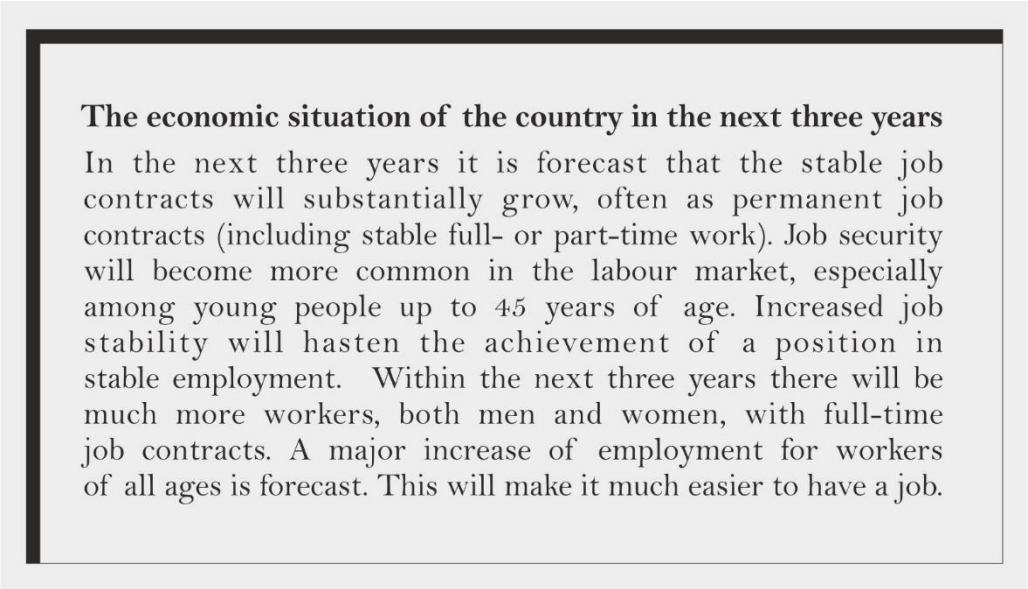
Figure 1a. *The negative future scenario*



The economic situation of the country in the next three years

In the next three years it is forecast that job contracts with precarious terms will grow substantially, often including jobs only lasting just a few weeks. Job insecurity will become an even further spread condition in the labour market, especially among young people up to 45 years of age. This growing precariousness in job contracts will delay the achievement of a position in stable employment. Within the next three years there will be many more workers, both men and women, with job contracts amounting to only few hourseach week. A major increase in unemployment for workers of all ages is forecast. This will make it more and more difficult to have a job.

Figure 1b. *The positive future scenario*



The economic situation of the country in the next three years

In the next three years it is forecast that the stable job contracts will substantially grow, often as permanent job contracts (including stable full- or part-time work). Job security will become more common in the labour market, especially among young people up to 45 years of age. Increased job stability will hasten the achievement of a position in stable employment. Within the next three years there will be much more workers, both men and women, with full-time job contracts. A major increase of employment for workers of all ages is forecast. This will make it much easier to have a job.

Table 1. *Fertility intentions by economic scenarios. Couples, men, and women.*

	Couples	Men	Women
All	4.5	4.3	4.6
No scenario	4.5	4.4	4.6
Negative scenario	3.3	3.2	3.5
Positive scenario	5.4	5.3	5.5
Number of observations	382	382	382

Table 2. *Descriptive statistics of variables included in the analysis. Percent. (Number of observations in parenthesis)*

	Couples
Economic scenarios	
No scenario	34.0 (130)
Negative scenario	30.6 (117)
Positive scenario	35.3 (135)
Couple's employment status	
Both employed	53.6 (204)
Only she employed	10.1 (38)
Only he employed	21.8 (83)
None employed	14.6 (55)
Couple's income situation	
Low	18.1 (69)
Medium	60.5 (231)
High	21.5 (82)
Female share of couple income (mean)	44.0
Couple's educational attainment	
Both low	14.7 (56)
Only she high	17.5 (67)
Only he high	12.8 (49)
Both high	55.9 (210)
Age of women's youngest child	
Childless	64.9 (248)
0-1 years	13.1 (50)
2-5 years	6.8 (26)
6+ years	15.2 (58)
Age of female partner (mean)	29,7
Couple's age difference	
Same age	39.5 (151)
He is older	50.5 (193)
She is older	9.9 (38)
Number of observations	382

Table 3. *Effects of exposure to future economic scenarios (treatment) on fertility intentions. Linear regression. Couples, men, and women.*

	Couples			Men			Women		
Variables	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Economic scenarios									
No scenario (ref.)	1			1			1		
Negative scenario	-1.19	0.396	0.003	-1.23	0.421	0.004	-1.16	0.450	0.010
Positive scenario	0.98	0.382	0.011	1.05	0.405	0.010	0.91	0.433	0.037
Couple's employment status									
Both employed (ref.)	1			1			1		
Only she employed	0.08	0.603	0.895	0.02	0.640	0.976	0.06	0.683	0.933
Only he employed	0.73	0.490	0.140	0.59	0.521	0.257	0.86	0557	0.124
None employed	-0.73	0.662	0.271	-0.71	0.705	0.312	-0.74	0.752	0.327
Couple's income situation									
Low (ref.)	1			1			1		
Medium	0.81	0.581	0.167	0.40	0.616	0.520	1.23	0.658	0.063
High	1.33	0.717	0.064	0.88	0.761	0.247	1.79	0.814	0.029
Female share of couple income	0.02	0.010	0.035	0.02	0.010	0.029	0.02	0.011	0.097
Couple's educational attainment									
Both low (ref.)	1			1			1		
Only she high	-0.47	0.576	0.420	-0.66	0.612	0.285	-0.29	0.654	0.664
Only he high	-0.06	0.622	0.920	0.11	0.660	0.868	-0.25	0.706	0.728
Both high	0.40	0.494	0.414	0.38	0.524	0.465	0.42	0.561	0.453
Age of women's youngest child									
Childless (ref.)	1			1			1		
0-1 years	-0.04	0.508	0.938	-0.23	0.539	0.673	0.14	0.577	0.797
2-5 years	0.04	0.668	0.953	0.32	0.709	0.659	-0.23	0.758	0.765
6+ years	-2.30	0.556	0.000	-2.56	0.591	0.000	-2.05	0.631	0.001
Age of female partner	1.39	0.368	0.000	1.21	0.391	0.002	1.57	0.418	0.000
Age of female partner sq.	-0.02	0.005	0.000	-0.02	0.006	0.003	-0.03	0.007	0.000
Couple's age difference									
Same age (ref.)	1			1			1		
He is older	0.13	0.341	0.702	0.02	0.362	0.963	0.24	0.388	0.537
She is older	0.08	0.593	0.892	0.28	0.630	0.655	-0.12	0.674	0.865
Constant	-18.03	5.534	0.001	-15.62	5.883	0.008	-20.46	6.288	0.001
Number of observations	382			382			382		

Table 4. *Effects of exposure to future economic scenarios on fertility intentions. Linear regression including an interaction variable between economic scenarios and gender. Men + women.*

	Model 1			Model 2		
Variables	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Economic scenarios						
No scenario (ref.)	1			1		
Negative scenario	-1.19	0.385	0.002	-1.25	0.405	0.002
Positive scenario	0.98	0.392	0.013	1.01	0.413	0.015
Gender						
Male (ref.)	1			1		
Female	0.25	0.144	0.081	0.24	0.173	0.170
Economic scenario * gender						
No scenario * female (ref.)				1		
Negative scenario * female				0.11	0.349	0.747
Positive scenario * female				-0.06	0.314	0.849
Constant	-18.42	4.794	0.000	-18.16	4.80	0.000
Number of observations	764			764		

Note: In the models, we control for employment, income, income difference in couple, educational attainment, age of women, age difference in couple, and age of mother's youngest child. Standard error is clustered by couples.

Table 5. *Effects of exposure to future economic scenarios (treatment) on fertility intentions. Linear regression including an interaction variable between the economic scenarios and couple's employment situation. Couples, men, and women.*

Variables	Couples			Men			Women		
	B	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Economic scenarios									
No scenario (ref.)	1			1			1		
Negative scenario	-0.97	0.538	0.073	-0.80	0.572	0.165	-1.16	0.607	0.056
Positive scenario	1.19	0.527	0.024	1.32	0.560	0.019	1.04	0.594	0.081
Couple's employment status									
Both employed (ref.)	1			1			1		
Only she employed	1.38	0.835	0.099	1.22	0.894	0.172	1.41	0.945	0.135
Only he employed	0.53	0.730	0.465	0.97	0.778	0.212	0.10	0.826	0.900
None employed	-0.76	0.917	0.410	-0.88	0.982	0.374	-0.62	1.037	0.552
Economic scenarios* Employment status									
No scenario * Both employed (ref.)	1			1			1		
No scenario * Only she employed (ref.)	1			1			1		
No scenario * Only he employed (ref.)	1			1			1		
No scenario * None employed (ref.)	1			1			1		
Negative scenario * Both employed (ref.)	1			1			1		
Negative scenario * Only she employed	-3.20	1.318	0.016	-2.71	1.406	0.055	-3.56	1.490	0.017
Negative scenario * Only he employed	0.43	1.006	0.671	-0.69	1.071	0.518	1.55	1.137	0.174
Negative scenario * None employed	0.21	1.188	0.863	0.06	1.269	0.962	0.34	1.344	0.798
Positive scenario * Both employed (ref.)	1			1					
Positive scenario * Only she employed	-2.00	1.353	0.139	-1.88	1.444	0.193	-1.99	1.530	0.194
Positive scenario * Only he employed	0.31	0.954	0.749	-0.45	1.017	0.655	1.06	1.079	0.326
Positive scenario * None employed	-0.15	1.092	0.890	0.37	1.166	0.752	-0.67	1.235	0.587
Constant	-19.52	5.579	0.001	-16.25	5.996	0.007	-22.89	6.317	0.001
Number of observations	382			382			382		

Note: Same models as in Table 3 + the interaction variable between the economic scenarios and couple's employment situation.

Table 6. *Effects of exposure to future economic scenarios (treatment) on fertility intentions. Linear regression including an interaction variable between the economic scenarios and couple's income. Couples, men, and women.*

Variables	Couples			Men			Women		
	B	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Economic scenarios									
No scenario (ref.)	1			1			1		
Negative scenario	-0.39	0.907	0.670	-0.73	0.963	0.447	-0.03	1.028	0.979
Positive scenario	1.12	0.906	0.217	1.76	0.963	0.068	0.49	1.027	0.634
Couple's income									
Low (ref.)	1			1			1		
Medium	1.22	0.781	0.119	0.93	0.829	0.264	1.54	0.884	0.082
High	1.57	0.950	0.099	0.97	1.009	0.337	2.19	1.077	0.043
Economic scenarios * Income									
No scenario * low (ref.)	1			1			1		
No scenario * medium (ref.)	1			1			1		
No scenario * high (ref.)	1			1			1		
Negative scenario * low (ref.)	1			1			1		
Negative scenario * medium	-0.90	1.047	0.390	-0.64	1.113	0.565	-1.19	1.187	0.318
Negative scenario * high	-1.24	1.246	0.320	-0.57	1.324	0.667	-1.93	1.413	0.174
Positive scenario * low (ref.)	1			1			1		
Positive scenario * medium	-0.39	1.041	0.711	-1.18	1.106	0.288	0.38	1.180	0.745
Positive scenario * high	0.38	1.217	0.757	-0.03	1.293	0.979	0.78	1.380	0.572
Constant	-17.82	5.591	0.002	-16.12	5.943	0.007	-19.54	6.341	0.002
Number of observations	382			382			382		

Note: Same models as in Table 3 + the interaction variable between the economic scenarios and couple's income.