

How economic uncertainty shapes the formulation of fertility intentions: Evidence from a cross-national experimental approach.

Lars Dommermuth¹, Statistics Norway

Trude Lappegård, University of Oslo

Daniele Vignoli, University of Florence

Alessandra Minello, University of Florence

Camilla Matera, University of Florence

Axel Peter Kristensen, University of Oslo

Extended abstract

Introduction

Since 2009, in the aftermath of the great recession, demographers have observed a lasting decline in fertility rate in most regions of the world, including North-America and most European countries (United Nations, 2019). There are few exceptions: Germany and United Kingdom, total fertility rates (TFR) increased or remained stable. Several countries in Eastern and Southern Europe, including Poland and Italy, are now close to or have fallen below a TFR of 1.3 (United Nations, 2019), also defined as lowest-low fertility. Rather unexpected, a drop in TFRs was observed in Northern Europe (Comolli et al., 2019) In Iceland (1,71), Finland (1,4) and Norway (1,56), TFR has reached a historic low in 2018.

Thus, the question how people make decision about having children emerges as highly relevant in these times increasing uncertainty and falling fertility rate. In this study we analyze the determinants of fertility intention in Norway, Italy, Germany, United Kingdom and Poland, based on data from online laboratory experiments and corresponding surveys conducted in 2019. We focus on the social psychological factors associated with childbearing intentions and make use of the Theory of Planned Behavior (TPB) (Ajzen, 1991) to operationalize the fertility decision-making process. We provide insights into how nowadays couples make decisions about fertility intentions in these countries, belonging in many terms to different welfare-state regimes and with different fertility patterns. Further, the study applies a new approach to capture the relevance of economic uncertainty for the formulation of fertility intentions. So far, research on fertility intentions has primarily used surveys, which do not allow to evaluate the impact of general economic conditions. We expose individuals to specific scenarios of the future economic development in their country to assess the causal effect of perceived economic uncertainty on the fertility decision-making process.

The Theory of Planned Behavior and fertility intentions

The Theory of Planned Behavior (TPB) is a social psychological model commonly used to explain or predict behaviors (Ajzen 2005). In recent years, the model has been adapted in several studies on childbearing intentions (for an overview, see Testa et al., 2011; Philipov et al., 2015). In the TPB

¹ Corresponding author, lars.dommermuth@ssb.no

framework, behavior is modelled as an outcome of reflective decisions, which are characterized as intentions. Intentions are a direct precursor to behavior. Intentions themselves are formed from three sets of factors: attitudes, subjective norms and perceived behavioral control. Individual characteristics, as income or education, may affect these factors, but their impact on the intention should be channeled through the three factors. Aspects of the environment, including for example availability of childcare or general economic conditions, are defined as actual enablers and constraints, as they can prevent individuals from developing an intention (through influencing their perceived behavioral control) or carrying out an intention. Figure 1 presents an adaption of the TPB to the fertility decision-making process (Mencarini et al., 2015).

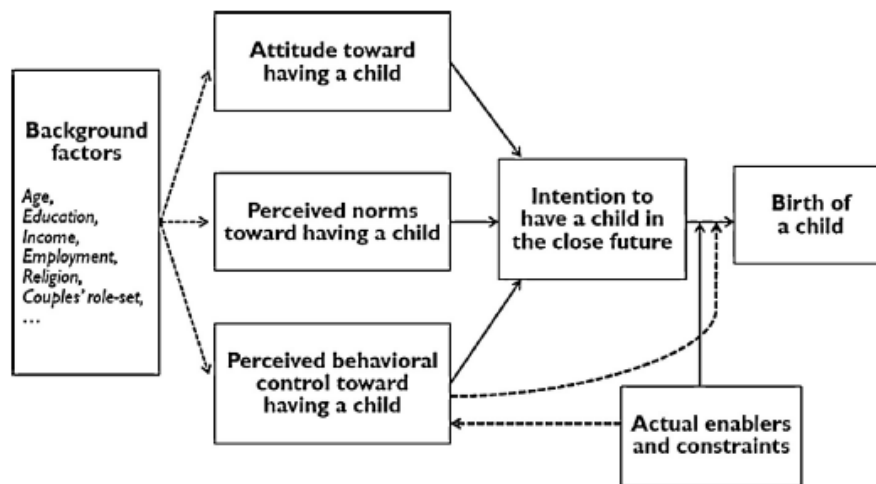


Figure 1. A schematic presentation of the Theory of Planned Behavior for fertility decision-making (Adapted from Mencarini et al., 2015).

To be able to apply the TPB, it is important to define the precise behavioral goal with respect to which intention is assessed. Fertility related goals include *intentions to have (first) child* at a specific age or “having a child or another child during the next 3 years” (Ajzen & Klobas, 2013). It is important to underline, that the measure for an intention not only should capture positive intentions (“I want a child within the next three years”) but also negative intentions (“I don’t want a child within the next three years”). In research on the link between fertility intentions and childbearing behavior, both positive and negative intentions have proven to have predictive power (Dommermuth et al., 2015; Kuhnt & Trappe, 2016; Mencarini et al., 2015; Schoen et al., 1999;). Overall, the impact of negative intentions is higher while positive childbearing intentions are less often realized, which contributes to the observed gap between ideal and realized number of children (Beaujouan & Berghammer, 2019). It is also recommended to distinguish between grades in the strength of an intention, instead of just separating between having or not having an intention (Mynarska & Rytel, 2017).

Attitudes capture the possible positive or negative impact of having a child on one’s life, including life satisfaction or happiness, freedom, union satisfaction or work and career. Positive attitudes towards childbearing are expected to increase the likelihood for positive fertility intentions. *Perceived norms* are the beliefs about opinions others hold about the individual having a child. That is for example what one thinks that the partner, closest family, friends or the society in general thinks about, that he/she will have a(nother) child. Perceived support of the goal attainment, identified as others thinking that it is a good idea to have a child, increases the likelihood for a positive fertility intention. *Perceived behavioral control* includes the individual’s perception of specific factors that can enable or hamper the decision to have a child. This can for example include, what respondents think, how much the decision to have a child would depend on their financial situation, work situation or

housing situation. As displayed in Figure 1, perceived behavioral control is influenced by so-called actual enablers and constraints. They measure how each factor is present in the decision-making process, e.g. to which extent respondents think they have actual control over their financial situation, work or housing (Ajzen & Klobas, 2013).

The missing link between individual decision-making and socioeconomic context

It has been pointed out correctly, that most existing studies applying the TPB in the field of fertility cannot capture that fertility intentions change frequently over the life course and that fertility intentions may compete with other intentions (Barber, 2001; 2011). Nevertheless, studies applying the TPB have provided valuable evidence on the decision-making process around childbearing. As predicted by the TPB, attitudes, subjective norms and perceived control have significant impact on the formulation of fertility intentions, but these correlations vary across countries (Ajzen & Klobas, 2013). For example, women in countries with strong institutional support feel more in control of the factors that might constrain them from having a child than women in countries with less support (Ajzen & Klobas, 2013). It is recognized in the TPB-framework that the wider socioeconomic and institutional context might affect fertility intentions by influencing attitudes, social norms or the perceived behavioral control towards childbearing at the individual level. However, so far “data to test hypotheses of such effects are not available” (Ajzen & Klobas, 2013: 222). It is the main aim of this paper to fill this research gap and answer the following research questions:

1. How is the formation of fertility intentions affected by the socioeconomic context and perception of the further economic development?
2. Does the link between the socioeconomic context and the formation of fertility intentions vary across countries?

Data and analytical approach

To answer these two research questions, we use data from a laboratory experiment in Italy and Norway (800 respondents in each country) and an experimental online survey conducted in Italy, Norway, Germany, Poland and the United Kingdom (500 respondents in each country). As mentioned, these countries are characterized by diverse levels and trends of fertility and belong to different welfare state regimes (Esping-Andersen, 1990; Ferrera, 1996), providing different levels of institutional security. All respondents are in a relationship, about half of them have children and they are aged 20 to 40 (women) and 45 (men) years. The sample includes employees with stable and temporary contracts, as well as unemployed persons. The data collection is based on the same standardized questionnaire. The laboratory experiments in Italy and Norway were conducted in summer and autumn 2019. The online survey will be launched later the same year and the authors have direct access to the data right after the data collection. Overall, the data will be comparable across countries and reflect today's decision-making process in these societies.

Beside the questions on fertility intentions and related factors included in the TPB-framework (see below), the experiment includes an instrument to evaluate the impact of the socioeconomic context. The instrument is a mock newspaper story on the future development of the economic situation of each country. Respondents are randomly assigned to either a positive economic scenario, negative economic scenario or no scenario at all (control group). Both scenarios are a description of the development of the national economic situation in the next three years. The text includes sentences on the development of employment rates, but also on future job (in-)security, increase or decrease of stable contracts and full-time employment and an explicit reference to young people up to 45 years. Giving the randomization of the respondents to treatment and control group, this automatically controls for potential alternative explanations.

Respondents that are randomly assigned to one of the scenarios, are asked to envisage themselves in the given situation and answer if they intend to have a child in the next three years, on a scale from 0 (definitely not) to 10 (definitely yes). This is followed-up by questions capturing attitudes towards a child, perceived norms towards having a child and perceived behavioral control towards having a child, including if this would hamper other life spheres and competing behaviors (Barber, 2001). The text of the economic scenario is repeatedly displayed, and the respondents are asked to envisage themselves in the given scenario while answering these questions. The control group answers to the same questions without any additional background or scenario, as in any regular survey on this topic. All respondents are asked about their actual employment situation and other factors that can be categorized as actual enablers and constraints in the TPB-framework. Finally, the questionnaire includes relevant background characteristics (type of union, education, religiosity, age, etc.). The results of the analyses will be presented in several steps. First, we compare the mean distribution and variance of the fertility intention between the three different groups and in the countries. First preliminary results from Italy indicate, that respondents assigned randomly to economic scenario with high uncertainty, score lowest on the scale for fertility intentions, while respondents envisaging themselves in a scenario with increasing economic certainty score highest. The control group is situated in-between them. Thus, we find a negative impact of economic uncertainty on fertility intentions and vice versa. Theoretically, one might expect that in a setting with high institutional support, as for example in a strong welfare state as Norway, the difference between the groups could be smaller compared to the Italian case. Next, we will analyze to which degree the instrument variable shapes the impact of the TPB-factors (attitudes, perceived norms, perceived behavioral control and actual enablers and constraints) on fertility intentions. Running models for all countries and comparing the impact between countries, will provide new insight into how economic uncertainty affects the decision-making process for childbearing in different societies.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I., & Klobas, J. (2013). Fertility intentions: An approach based on the theory of planned behavior. *Demographic Research*, 29(8), 203-232. doi:10.4054/DemRes.2013.29.8
- Barber, J. S. (2011). The Theory of Planned Behaviour: considering drives, proximity and dynamics. *Vienna Yearbook of Population Research*, 9, 31-35. doi:10.1553/populationyearbook2011s31
- Barber, J. (2001). Ideational Influences on the Transition to Parenthood: Attitudes toward Childbearing and Competing Alternatives. *Social Psychology Quarterly*, 64(2), 101-127. www.jstor.org/stable/3090128
- Beaujouan, E., & Berghammer, C. (2019). The gap between lifetime fertility intentions and completed fertility in Europe and the United States: A cohort approach. *Population Research and Policy Review*. doi:10.1007/s11113-019-09516-3
- Dommermuth, L., Klobas, J., & Lappegård, T. (2015). Realization of fertility intentions by different time frames. *Advances in Life Course Research*, 24, 34-36. doi:10.1016/j.alcr.2015.02.001
- Comolli, C. L., Neyer, G., Andersson, G., Dommermuth, L., Fallesen, P., Jalovaara, M., Jónsson, A., Kolk, M. & Lappegård, T. (2019). Beyond the Economic Gaze. Childbearing during and after recessions in the Nordic countries. *Stockholm Research Reports in Demography*, 2019(16).
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.
- Ferrera, M. (1996). The 'Southern Model' of Welfare in Social Europe. *Journal of European social policy*, 6(1), 17-37.

- Kuhnt, A.-K., & Trappe, H. (2016). Channels of social influence on the realization of short-term fertility intentions in Germany. *Advances in Life Course Research*, 27, 16-29.
doi:10.1016/j.alcr.2015.10.002
- Mencarini, L., Vignoli, D., & Gottard, A. (2015). Fertility intentions and outcomes. Implementing the Theory of Planned behavior with graphical models. *Advances in Life Course Research*, 23, 14-28.
doi: 10.1016/j.alcr.2014.12.004
- Mynarska, M., & Rytel, J. (2017). From motives through desires to intentions: investigating the reproductive choices of childless men and women in Poland. *Journal of Biosocial Science*, 1-13,
doi:10.1017/S0021932017000190
- Philipov, D., Liefbroer, A. C., & Klobas, J. (Eds.). (2015). *Reproductive Decision-Making in a Macro-Micro Perspective*. Dordrecht: Springer.
- Schoen, R., Astone, N. M., Kim, Y. J., Nathanson, C. A., & Jason, M. F. (1999). *Do fertility intentions affect fertility behavior?* *Journal of Marriage and Family*, 61(3), 790–799.
- Testa, M. R., Sobotka, T., & Morgan, S. P. (2011). Reproductive decision-making: towards improved theoretical, methodological and empirical approaches. *Vienna Yearbook of Population Research*, 9(2011), 1-9. doi:10.1553/populationyearbook2011s1
- United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision. url:
<https://esa.un.org/unpd/wpp/Download/Standard/Population/>