

Is the Impact of Employment Uncertainty on Fertility Intentions Channeled by Subjective Well-Being?

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We study the impact of term-limited working contracts on fertility intentions in contemporary Europe, adding the role of subjective well-being (SWB) to the theoretical and empirical discussion.

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Extended Abstract

1. Introduction and Objective

Sociologists and demographers have long been interested in the role of economic uncertainty on fertility dynamics. Kohler and colleagues (2002) argued that macro-level economic instability leads to individual-level financial uncertainty, delaying union formation and childbearing in adulthood in favor of a prolonged residence in the parental home, the pursuit of higher education, and efforts for greater job stability (see also Blossfeld and Mills, 2013). Such conditions of uncertainty are expected to affect also family formation and are now viewed as primary forces leading to low fertility in contemporary Europe (Kreyenfeld et al. 2012).

The recent “Great Recession”, spanning 2007 to 2009 and featuring downturns in both financial and labor market fortunes, has fueled interest in understanding whether economic uncertainty, which does not appear to be a transient phenomenon, affects fertility.

While the idea that macro-level economic downturns translate into micro-level perceptions of economic uncertainty, and that this discourages people from having children, evidence at the individual level is still mixed. There are two main reasons for this inconsistency. First, most of previous research has focused on the role of unemployment as an indicator of economic uncertainty (see Kreyenfeld 2015 and Matysiak & Vignoli 2008 for review), while

other factors, such as term-limited working contracts, have been scarcely considered (e.g. Bloosfeld et al 2005; Kreyenfeld et al. 2012; Vignoli et al 2012). Second, most of the empirical knowledge of the effects of economic uncertainty on birth dynamics reflects the pre-crisis era.

In this study, we add to this literature by studying the impact of term-limited working contracts on fertility intentions in contemporary Europe. In addition, we contribute to the literature on the fertility/employment uncertainty nexus by adding a further element to the theoretical and empirical discussion on the topic. We posit that a potential source of heterogeneity in previous findings, which so far has never been accounted for, is the level of individuals' subjective well-being (SWB). Because the feeling of uncertainty conveys firstly from the working life to the private one (i.e. precarious jobs embody little satisfaction and meaning to life), we suppose that the level of SWB may constitute a strong mediator of the impact of economic uncertainty on fertility. In countries where having children is the result of an intended action, having decent levels of SWB has in fact been proved to represent an intrinsic prerequisite for reproductive behaviors (Mencarini et al. 2016).

This paper explores the possibility that the impact of employment uncertainty on fertility intentions is channeled by individuals' level of SWB. We test this hypothesis by adopting a formal framework for causal inference.

2. Data

We use data from the European Social Surveys, a series of comparative surveys conducted every two years since 2002, selecting the waves containing questions on fertility intentions; namely, Round 2 (2004) and Round 5 (2010). The fact that the two surveys have been gathered in 2004 and 2010 allows us to compare data collected before the onset of the Great Recession and while the crisis was underway.

Different waves of the ESS also include different countries. For comparative aims, here we use only the countries included in both waves, resulting with a group of 22 countries (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom). We selected 19,940 individuals aged 15-45.

3. Method

We used a technique of mediation analysis within the framework of causal inference. Mediation analysis allows understanding *if* and *to which extent* a variable *M* mediates the

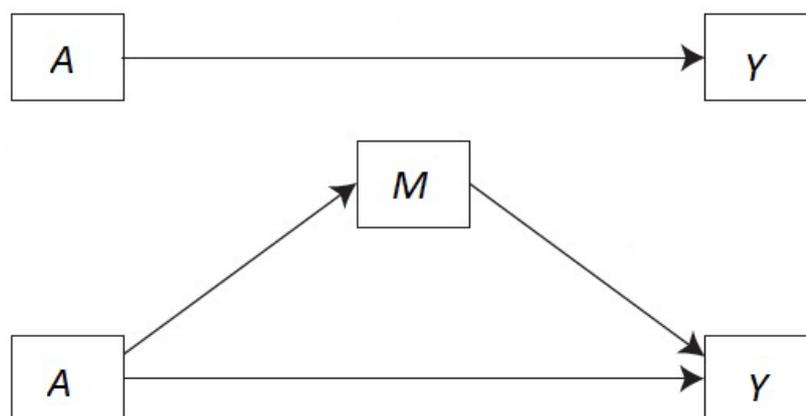
effect of a treatment variable A on the outcome variable Y (see **figure 1**). In this case, fertility intentions are the outcome, while the “treatment” is represented by the condition of employment uncertainty. Finally, we set the self-assessed measure of life satisfaction as mediation variable.

The mediation analysis was implemented following Valeri and VanderWeele’s (2013), using the *counterfactual approach* in order to account for cases in which the exposure and the mediator interact in their effects on the outcome. This approach fits our application: the type of contract (*treatment*) and the life satisfaction (*mediator*) are supposed to be correlated as they could influence one another, and their interaction may affect fertility intentions.

In addition to the estimates of these coefficients, when interpreting the results we are interested in *causal effects* such as the Controlled Direct effect (CDE). The CDE expresses how much the outcome changes on average when the mediator is controlled at level m , while the treatment is allowed to change. In our case, it expresses the average change in fertility intentions that would have occurred if an individual had changed their employment status (from permanent to temporary), but the level of SWB were kept uniformly at level m . Importantly, our mediation approach allows the CDE to vary according to *a priori* fixed levels of SWB. Hence, we can explore the average change in fertility intentions due to employing uncertainty for different levels of life satisfaction.

As concerns the model identification, the causal interpretation of results requires two major assumptions: 1) There must be no unmeasured confounding of the treatment-outcome relationship; 2) There must be no unmeasured confounding of the mediator-outcome relationship. In order to meet these assumptions, we included a set of control covariates: age, gender, partner’s working condition, number of children, country and year of survey.

Figure 1 – Mediation analysis scheme



4. First results

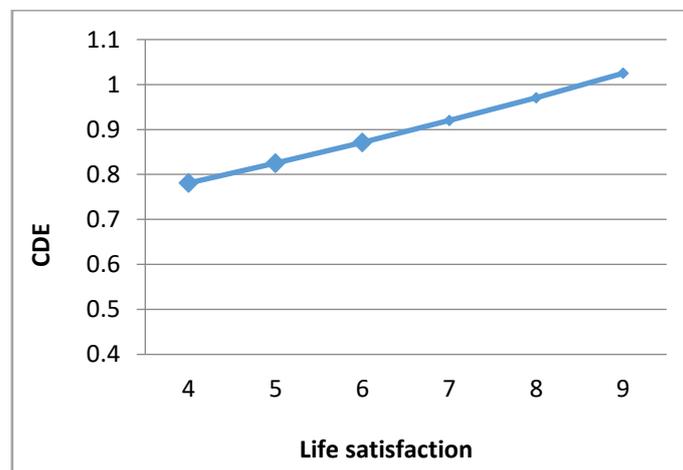
Here, we just display results of a mediation analysis performed on the pooled dataset, in order to have an overall idea of the effect size and direction. Although **table 1** shows a non-significant CDE, **figure 2** shows that things change as the level of life satisfaction varies. In particular, we can appreciate that it becomes significant for lower levels of life satisfaction. Our preliminary analysis clearly suggest that the impact of employment uncertainty on fertility intentions depends on the level of SWB: the negative effect is found *only* when SWB is relatively low. The analysis will continue by stratifying the analysis by gender, parity, and educational level.

Table 1 – Causal effects (with SWB at 7)

Effect	Estimate	p-value
CDE	0.92	0.186
NDE	0.95	0.407
NIE	0.99	0.040
Marginal total effect	0.94	0.324
Proportion mediated	0.16	

Note: results are controlled for respondent's age and educational level, gender, parity, partner's work, welfare, year of survey.

Figure 2 – CDE as life satisfaction varies



Source: our elaboration on data – Large dots refer to significant results

Note: results are controlled for respondent's age and educational level, gender, parity, partner's work, welfare, year of survey.

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