

Alma Mater Studiorum Università di Bologna  
Archivio istituzionale della ricerca

I've changed my mind. The intentions to be childless, their stability and realisation

This is the final peer-reviewed author's accepted manuscript (postprint) of the following publication:

*Published Version:*

Albertini M., Brini E. (2021). I've changed my mind. The intentions to be childless, their stability and realisation. EUROPEAN SOCIETIES, 23(1), 119-160 [10.1080/14616696.2020.1764997].

*Availability:*

This version is available at: <https://hdl.handle.net/11585/830405> since: 2021-08-26

*Published:*

DOI: <http://doi.org/10.1080/14616696.2020.1764997>

*Terms of use:*

Some rights reserved. The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

This item was downloaded from IRIS Università di Bologna (<https://cris.unibo.it/>).  
When citing, please refer to the published version.

(Article begins on next page)

This is the final peer-reviewed accepted manuscript of:

***Marco Albertini & Elisa Brini (2021) I've changed my mind. The intentions to be childless, their stability and realisation, European Societies, 23:1, 119-160,***

The final published version is available online at :  
<https://doi.org/10.1080/14616696.2020.1764997>

Rights / License:

The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

*This item was downloaded from IRIS Università di Bologna (<https://cris.unibo.it/>)*

***When citing, please refer to the published version.***

**I've changed my mind.**

## **The role of attitudes, subjective norms and perceived control on the intentions to be childless, their stability and realisation in the short-term**

### **1. Introduction**

In recent decades decreasing fertility and increasing childlessness rates in European societies have stimulated conspicuous research on fertility and its determinants (for a review see Balbo *et al.* 2013). However, while the factors affecting fertility intentions and their realisation have been extensively explored, also shedding light on that part of involuntary childlessness connected with the so-called 'postponement syndrome' (Testa and Bolano 2018), the determinants of voluntary childlessness have received less attention, especially in regard to the formation of the intention to remain childless. A specific focus on zero-fertility intentions is warranted also because of the decreasing correlation between completed cohort fertility and the prevalence of childlessness (Tanturri *et al.* 2015). This paper analyses the main correlates of individuals' intentions to remain childless, the factors associated with the stability of these intentions and their realisation in the short term – special attention is paid to individual's attitudes, social norms and perceived behavioural control.

The trend in the childlessness rate among cohorts of women born in the 20th century is a U-shaped one. The proportion of women without children at the end of their reproductive life was substantial among the birth cohorts of the beginning of the 1900, reached its lowest level among women born between 1935 and 1945, to then increase significantly among the post-WWII birth cohorts, reaching levels as high as 25-30% in several European countries (OECD 2015, Rowland 2007, Sobotka 2017, Tanturri *et al.* 2015). Even if in many countries the proportion of childless women among the 1970s birth cohorts is similar to that registered among those born at the beginning of the century, there are marked differences in the composition of non-parents in terms of both the motivations for and pathways to childlessness (Dykstra and Hagestad 2007, Fiori *et al.* 2017, Kohli and Albertini 2009). In particular, it has been suggested that among the most recent cohorts a pivotal role in explaining the increasing childlessness rate has been played by: (i) the growing number of women who are (involuntarily) childless due to the postponement of their reproductive decisions (Miettinen *et al.* 2015); and (ii) the increasing amount of women who are voluntarily childless, or child-free (Tanturri and Mencarini 2008). It has been argued, in other words, that 'modern' causes of infertility are emerging and substituting more traditional ones, such as celibacy and sterility (Tanturri *et al.* 2015).

To date, research on the absence of children has mainly treated childlessness as a non-event, focusing on the factors related to fertility postponement and implicitly assuming greater likelihood of pregnancy (and fertility) once all the obstacles have been removed. In most cases, therefore, the emphasis has been on the 'involuntary' or 'accidental' component of childlessness, seeing the lack of children as the failure to realise desired fertility levels, rather than as an active choice. This 'selective inattention' (Veevers 1973) has led to the neglect of the active childless group, and to less attention being paid to childlessness as a voluntary process. Also, relatively few studies have taken into consideration those group of individuals and part of the life course where the blurred boundaries between voluntary and involuntary childlessness lie, and where ambivalence and instability in individuals' fertility intentions are to be found (Fiori *et al.* 2017, Heaton *et al.* 1999, McAllister and Clarke 1998). Moreover, demographic and sociological studies of childlessness have been more concerned to analyse the socio-economic and

health consequences of a life without children than to explore the factors engendering the intention of childlessness and its realisation (e.g., Albertini and Kohli 2017, Allen and Wiles 2013, Dykstra and Wagner 2007, Gibney *et al.* 2015, Gillespie 2001, Hansen *et al.* 2009, Keizer *et al.* 2010, Kendig *et al.* 2007). As a result, evidence on the factors associated with the intention not to become a parent is relatively scant, particularly when referring to ideational factors.

In this paper we present an analysis of the factors associated with intentions to be childless, and with the realisation and the stability of these intentions in the short term – also comparing childlessness intentions with parenthood ones. The approach proposed by the theory of planned behaviour (TPB) is utilised to connect childlessness intentions and their realisation and to explore the role of ideational factors. The focus is therefore on individuals' negative fertility intentions and subsequent stability; the study contributes to shedding light on people who voluntarily live without children. Aside from analysing these dynamics on the female population, men are also included in the analysis. Therefore, the study also contributes to knowledge of male's childlessness, for which much less research is available than for women.

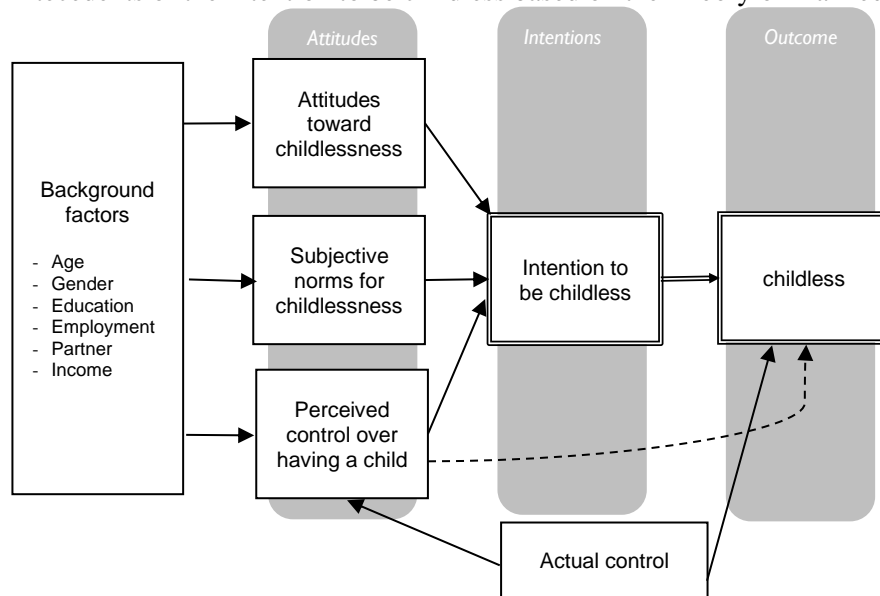
## 2. Theoretical background

The Theory of Planned Behaviour (Ajzen 1985, 1991, Ajzen and Klobas 2013) provides a useful theoretical framework in which to understand and define these mechanisms and their functioning. The TPB has been usually employed to study fertility intentions and their realisation (e.g., Dommermuth *et al.* 2011, 2015, Mencarini *et al.* 2015, see also Spéder and Kapitány 2015 for a recent discussion of some relevant limitations), but we maintain that it can also be effectively applied to understanding childlessness intentions and their realisation.

According to the TPB, intentions to attain a behavioural goal are driven by and can be predicted from individuals' (i) attitudes toward the specific action; (ii) subjective norms associated with the behaviour; (iii) perceived behavioural control. In the context of fertility research, attitudes are associated with the consequences of having (or not) a child as perceived by the individual (*behavioural beliefs*). Subjective norms refer to perceived social desirability and social pressure (*normative beliefs*) in regard to having or not having a child among groups that are important for the individual. Finally, perceived behavioural control (*self-efficacy*) relates to both the perception about the presence of factors that might help or impede the realisation of individual fertility intentions, and the perceived power of these factors in affecting the behaviour. The TPB assumes that perceived control also reflects past experiences; it is also assumed that perceptions of control are a good proxy for actual control, which is influenced by actual conditions (Ajzen 2005, Bandura 1977, Klobas and Ajzen 2015). The TPB considers the effect of other factors that indirectly influence the formation of intentions; these factors include individual and social background characteristics.

Figure 1 schematizes the TPB theoretical framework when applied to childlessness. The central assumption of the TPB is that intentions 'capture the motivational factors that influence behaviour' (Ajzen 1985: 181), because to engage in a specific behaviour people perform a rational or reasoned action based on intentions – which are shaped through a process of reasoning. Therefore, according to the TPB, the intention to pursue a specific goal is a good predictor of that particular behaviour (Ajzen 1985, 2005).

Figure 1. Antecedents of the intention to be childless based on the Theory of Planned Behaviour



Source: Authors' adaptation from Ajzen and Klobas (2013), Klobas and Ajzen (2015).

Numerous previous studies on fertility intentions and their relationship with actual behaviour adopted the TPB approach (Dommermuth *et al.* 2011, 2015, Mencarini *et al.* 2015, Testa and Bolano 2018, Trappe and Kuhnt 2016). However, they have some shortcomings vis-à-vis the objectives of the present study. First, relatively little attention has been paid to the stability of intentions over time and individual's life course. Most studies have focused on the mechanisms driving the formation of childbearing intentions (Ajzen and Klobas 2013, Billari *et al.* 2009, Fahlén, 2013; Klobas and Ajzen 2015), whereas they have overlooked the factors related to the stability of those intentions and their realisation. Second, while previous studies have provided consistent evidence that a significant number of individuals do not realise their desired fertility (OECD 2016, Toulemon and Testa 2005), research analysing the link between fertility intentions and behaviour at the micro level yields mixed results (see for instance: Trappe and Kuhnt 2016 on the German case, Berrington and Pattaro 2014 on UK, and Spéder and Kapitány 2015 on Hungary). Finally, the majority of previous studies on fertility intentions and realisation have focused specifically on positive fertility intentions and their consequent realisation, and on the mismatch between ideal and actual fertility, while overlooking negative intentions, their stability and realisation (Bernardi *et al.* 2015, Bongaarts 2001, Dommermuth *et al.* 2015, Miller 2011, Testa and Basten 2014, Thomson 1997). The study of the intention to remain childless and its realisation, therefore, has not attracted much scholars' attention. The full variability of possible fertility outcomes, which include voluntary childlessness, does not appear to have been satisfactorily addressed and analysed.

The analysis of childlessness intentions and their realisation can contribute to improving our understanding of the micro-level social mechanisms that drive reproductive and non-reproductive behaviour. In the following analyses we explicitly consider the voluntary component of the phenomenon of childlessness. In doing so, this work contributes both to the specific literature about voluntary childlessness, and to the broader research on the link between fertility intentions and behaviour.

### 3. Research questions and hypotheses

The main aims of this study are: (i) to analyse which are the factors associated with the intention not to have children in the near future – the reference period being the three years following the interview; (ii) to look at how these intentions develop in the short term, and study which factors correlate with their realisation and stability. The reduced length of the observational window limits the generalizability of our findings, especially with respect to the individual's life course. However, previous studies have shown that intentions that are 'in close temporal proximity to the prospective behaviour' are more likely to be better predictors of the related behaviour than intentions referred to an unspecified time in the future (Ajzen and Fishbein 1973: 49, Billari *et al.* 2009, Philipov 2009). Furthermore, by adopting a short-term perspective we are able to use a set of variables from the Generations and Gender Survey which ensure that our study complies with the 'principle of compatibility', a necessary condition in studies adopting the TPB framework (Ajzen and Klobas 2013: 208)<sup>1</sup>. Besides providing a description of the main factors associated with the intention to remain childless in the short term, the analyses focus (i) on factors associated with the realisation of the intention to be childless in the three years following the interview, and (ii) on the determinants of the stability of the individual's intention to remain childless in the same period of time.

Previous empirical studies have consistently shown that – despite the many changes registered in the area of family-related values (Lesthaeghe 2010, Van de Kaa 2001) – parenthood is still considered a key step in the individual's transition to adulthood and is often perceived as a social and moral imperative (Ashburn-Nardo 2017). It is not surprising, therefore, that a number of studies have documented that childless men and women are subject to a strong social stigma. Non-parents, whether by choice or by circumstances, are described and perceived less favourably than parents, with the strongest stigma being attached to the voluntary childless (Chancey and Dumais 2009, Koropeckyj-Cox *et al.* 2007, Letherby 2002, Mueller and Yoder 1999, Park 2002, Sobotka and Testa 2008). As a consequence, expressing the intention to be childless is in contrast with the (still) dominant social and cultural values, and it can be seen as a non-normative preference<sup>2</sup>. In turn, individuals who do not conform to prevalent social norms and express their preference for a life without children may be expected to be more convinced in pursuing their intentions. Previous studies also suggested that negative fertility intentions, besides being a valid measure of future reproductive behaviour, tend to be more stable over time than positive fertility intentions (Rovi 1994, Schoen *et al.* 1999). As such, we expect that, in the short term, individuals are more likely to maintain the intention to remain childless compared to intention to become parents (hypothesis #1).

Three further hypotheses are developed in close connection with the TPB approach and focus on the role of ideational factors in affecting the short-term realisation and stability of the intention to be childless. First, according to the TPB if someone holds strong attitudes towards a specific behaviour, their intentions regarding that behaviour are more stable across time and, in addition, there is a higher probability that these intentions will

---

<sup>1</sup> The principle is defined as it follows: 'any well-defined behaviour or behavioural goal can serve as a criterion for study as attitudes, subjective norms, perceptions of control, and intentions are assessed with respect to exactly the same criterion. The goal of having a child involves a specific action and target and often also a specific context and time frame' (Ajzen and Klobas 2013: 208).

<sup>2</sup> The preference for becoming a parent is to be seen as socially normative for specific age groups. For instance, in most Western developed societies this won't be the case for a teenager. Thus, the degree of 'normativity' of parenthood may vary across one's age. This is also reflected in the variation of negative fertility intentions across age groups, especially before and after the twenties (Ní Bhrolcháin *et al.* 2010).

be realised. Therefore, in the context of this study, we expect that three years after the first interview, among those who had reported the intention to remain childless, individuals with stronger negative attitudes toward parenthood should have a lower probability to have made the transition to parenthood (*realization*), and to change their mind and express the desire to become parents (*stability*). In other words, we hypothesize that people with stronger attitudes against children and parenthood are more likely to maintain their preference to childlessness and realise it (hypothesis #2).

Second, according to the TPB, normative beliefs constitute a key factor affecting individual's intentions, their stability and realisation. In line with this prediction, a number of empirical studies have documented that individuals tend to conform to social expectations about childbearing in order to receive the approval of, and avoid conflict with, their significant others, pointing to the crucial role of social interactions in affecting reproductive behaviour (Bernardi and Klärner 2014, Billari *et al.* 2009, Bühler and Fraczak 2007, Kohler *et al.* 2001). Accordingly, we expect perceived social pressure and social desirability to exert an effect on childlessness intentions, their stability and realisation. We hypothesise that the perception of a stronger normative pressure to have children will reinforce the intention to become a parent, while reducing the likelihood of maintaining the intention to be childless and realising it (hypothesis #3).

Third, according to the TPB, individual's beliefs about the circumstances 'necessary' to have a child and the individual's perceived control over these conditions – in particular those regarding the individual's socio-economic situation – affects both fertility intentions and realisation. Individuals who see making the transition to parenthood as more contingent on specific socio-economic circumstances – and thus imposing more and stronger conditions to having a child – may be less prone to develop an intention to have a child and, if they develop this intention, to maintain and realise it. Therefore, we hypothesise that the more an individual think that having a child is conditioned on being in a specific socio-economic situation, the more likely it is that he/she will develop, maintain and realise the intention to remain childless (hypothesis #4).

Besides perceived control, and behavioural and normative beliefs, a number of background factors – such as educational level, actual partnership and employment status, wealth, etc. (Kurowska 2019, Spéder and Kapitány 2009) – are expected to affect the probability of developing the intention to remain childless, maintaining and realising this preference. As a consequence, when analysing fertility intentions and their stability and realisation – and testing our four hypotheses – it is important to control for the most relevant of these factors.

## **4. Data and measures**

### **4.1. Data**

The data used are from the first and second wave of the Generations and Gender Surveys (GGS). The GGS is a panel dataset specifically designed to study family dynamics; it provides high quality and comparable data on respondents aged 18-79 at the first wave, who were re-interviewed after three years. The GGS is, therefore, a valuable source for analysing the formation and stability of individual's intentions about childlessness, since it makes it possible to link subsequent behaviour with a previously stated intention. Respondents were asked about their intention to have a child in the next three years. The same question was asked three years later, and this made it possible to identify the stability of the intention within a short time.<sup>3</sup> One additional advantage of the GGS is that

---

<sup>3</sup> In both the waves, intentions to have children were collected by the following question 'Do you intend to have a/another child during the next three years?' with possible answers 'definitely not', 'probably not',



part of its core questionnaire was inspired on the TPB approach (Vikat *et al.* 2007) and, therefore, includes a set of questions that are particularly useful when adopting the TPB to study childlessness intentions. At the time of the analyses, longitudinal information about childbearing intention and realisation was available for Austria, Bulgaria, Czech Republic, France, Georgia, Germany, Italy, Lithuania and Russia; the analyses, therefore, utilizes data from these countries.<sup>4</sup>

#### 4.2. Sample selection, analytic strategy and variables

Of interest to this research is the sample of men and women in their reproductive age, who report being physically possible for them to have children, and who are childless at the time of the first interview. In line with previous studies on the topic we selected women aged between 20 and 45 years and men between 20 and 50 years.

While the distinction we make between different groups of respondents is similar to that proposed by Heaton and colleagues (2009), our analytical approach is different. Instead of creating a unique typology to summarise both individual's initial fertility intentions, their realisation and stability over time, we organise our empirical analyses in three steps. First, using data from the first wave of the GGS and logistic multivariate regressions, we analyse the prevalence and determinants of the intention to remain childless in the next three years (*perspective childless*, n=2533) versus the intention to become a parent (*perspective parents*, n=2561).

Second, using data from both the first and second wave of the survey and logistic multivariate regressions, we take into consideration the extent to which perspective childless respondents realised their intention to remain childless after three years (*realised intention to remain childless*, n=2295) or not (*become a parent*, n=238). Factors associated with the realisation of the intention to remain childless are explored.

In the third and last step of our analyses – taking into consideration only those respondents who remained childless between wave 1 and wave 2, independently of their declared fertility intention in wave 1 – we explored the stability of fertility intentions and its correlates (table 1). More specifically, by using multinomial logistic regression, we investigate the factors related to the respondent being *voluntary childless* – i.e. who stated they do want to be childless both in wave 1 and 2, n=1333 – or *involuntary childless* – i.e. who stated they do want to be parents both in wave 1 and 2, n=1318 – or a waver – i.e. who changed their mind in between the two waves: from childlessness to parenthood (*postponers*, n=962) or from parenthood to childlessness (*abandoners*, n=512).

---

'probably yes' and 'definitely yes'. The GGS also collects information about long-term fertility intentions, and asks respondents the following question 'Supposing you do not have a/another child during the next three years, do you intend to have any (more) children at all?' with the same possible responses available for the short-term question. As already pointed out, the decision to examine only short-term planned intentions stems from the fact that intentions that are 'in close temporal proximity to the prospective behaviour' are more likely to be better predictors of the related behaviour (Ajzen and Fishbein 1973: 49, Billari *et al.* 2009, Philipov 2009) and because this enabled us to use the same time window when assessing both the stability of fertility intentions and their realisation. As noted in previous research, the variables on fertility intentions have a low number of missing values (Cirtel *et al.* 2019). Among those individuals with non-missing socio-economic characteristics, the share of non-responses for childbearing intentions is about 11% in the first wave, and 19% in the second wave. The proportion of missing is higher among respondents who are in partnership in the first wave; in the second wave the proportion of missing is higher among men and older respondents.

<sup>4</sup> Hungary was excluded from the analysis because of concerns about the identification of cases between the two waves. For an assessment of the quality of the GGS survey data, and its variability across countries and variables, see Emery and Caporali 2019, Fokkema *et al.* 2016, Gauthier *et al.* 2018, Vergauwen *et al.* 2015).



Table 1: Groups of respondents who remain childless, according to the stability of their fertility intentions between Wave 1 and Wave 2.

	n	Intended to have a child at Wave 1	Had a birth	Intended to have a child at Wave 2
Voluntary Childless	1333	No	No	No
Waver - Postponers	962	No	No	Yes
Waver - Abandoners	512	Yes	No	No
Involuntary Childless	1318	Yes	No	Yes

### *Independent variables*

The main independent variables of our empirical analyses refer to the ideational factors associated with the intention to remain childless, and in particular to those factors suggested by the TPB approach. In the first wave of the GGS, three separate sets of questions gathered information about beliefs and attitudes, subjective norms, and perceived behavioural control toward childlessness (table 2)<sup>5</sup>. Principal component analysis was applied to responses to these questions to extract four factors connected with the TPB; each measurement was rescaled from 0 to 5 so as to have a unitary variance among all the factors and to ease comparison and interpretability.

To gauge *attitudes toward childbearing*, we relied on questions investigating the individual's expected consequences of having a child across eleven items. Respondents were requested to express the extent to which they thought a child would represent a cost and/or a benefit in their life. Following Billari and colleagues (2009) and Dommermuth and colleagues (2011), we retained the division between positive and negative attitudes. Seven items were included in the analysis<sup>6</sup>; viz. respondent's opinions on the fact that having a child would have negative effects on 'the possibility to do what you want', 'employment opportunities', and 'financial situation', were utilized to construct an index of negative attitudes toward childbearing. Similarly, we created an indicator of positive attitudes toward childbearing on the basis of the respondent's answers to statements about childbearing consequences on 'what people around you think of you', 'the joy and satisfaction in life', 'the closeness with partner', and 'the closeness with parents'.

To measure *subjective norms* toward childlessness we examined the strength of perceived social pressure to have a child. Respondents were asked about the extent to which they agreed with the statement that their parents and friends thought that they should have a child in the next three years, with 1 representing the strongest agreement and 5 the lowest. We reversed the scores to obtain an index that provided a weighted measure of perceived social pressure toward parenthood, with higher scores corresponding to the stronger social pressure to become parents.

The measurement of the *perceived behavioural control* (PBC) was limited to the perceived importance of control factors, since respondents' beliefs about being in control of that factor were imperfectly measured in the GGS (for a discussion see: Ajzen 2013: 216). This means that the PBC can only be assessed by means of questions investigating

<sup>5</sup> A relevant number of questions related to the TPB factors remained unanswered and with a listwise deletion of missing items only 3825 observation would have been available. To maximize the number of observations, we imputed these values by replacing the missing value with the mean of the observed values for the set of question if one of the items was missing. For instance, considering the factor related to 'Attitudes related to cost', if the question a) 'the possibility to do what you want' remained unanswered, we attributed to that missing value, the average value of the other two items related to that dimension.

<sup>6</sup> Items related to the effects of childbearing on sexual life, on partner's employment opportunities, on the care and security that respondents expected during old age, and on certainty in life were also present in the questionnaire, but were excluded from the analyses since they were not asked in all the countries considered.

individuals' perceptions of factors that they think will influence their decision, but without considering the extent to which they think they will be able to overcome difficulties related to such factors. In particular, GGS questions investigate whether and to what extent the individual's decision to have or not to have a child depends on the following factors: 'financial situation', 'work', 'housing conditions', 'partner's work', and 'childcare availability'. For each item, responses ranged from 1 (not at all) to 4 (a great deal).

Table 2: Factor loading of factors related to the TPB.

	Factor A: Attitudes related to cost	Factor B: Attitudes related to benefits	Factor C: Norms	Factor D: PBC	Uniqueness
<i>If you were to have a child during the next three years, would it be much better (1) o much worse (5) in terms of:</i>					
a. the possibility to do what you want	0.768				0.3253
b. your employment opportunities	0.796				0.3419
c. your financial situation	0.784				0.3402
<i>If you were to have a child during the next three years, would it be much worse (1) o much better (5)</i>					
d. what people around you think of you		0.685			0.4571
e. the joy and satisfaction you get from life		0.716			0.3780
f. the closeness between you and your partner		0.811			0.3184
g. closeness between you and your parents		0.718			0.4727
<i>To what extent you agree with these statements: Strongly disagree (1) strongly agree (5)</i>					
h. Most of your friends think that you should have a/another child			0.925		0.1093
i. Your parents think that you should have a/another child			0.922		0.1136
<i>The decision on whether to have a child during the next three years depends on: (1) not at all (4) a great deal</i>					
l. your financial situation				0.839	0.2883
m. your work				0.830	0.3015
n. your housing conditions				0.804	0.3445
o. your partner's/spouse's work				0.642	0.5727
p. availability of childcare				0.661	0.5327
	0.746	0.759	0.882	0.827	

Source: GGS Wave 1 and Wave 2, authors' calculation. Note: Principal Component Analysis, Varimax Rotation, Loadings <0.03 not showed

As mentioned above, previous studies have shown that, besides ideational factors, a number of relevant socio-economic characteristics – such as gender, age, employment and partnership status – affect fertility intentions. Therefore, in the following multivariate regressions we included information on gender, age, educational level, activity and partnership status, and home ownership as a proxy of the wealth situation of the household.

Age is a key variable in the formation of fertility intentions. We categorised age into 5-year groups according to the respondent's age at the time of the first interview (i.e. 20-24, 25-29, 30-34, 35-39, and 40 or more)<sup>7</sup>. Education was measured as the highest level of educational attainment in terms of the International Standard Classification of Education (ISCED), and we distinguished among respondents with low (ISCED 0-2), intermediate (ISCED 3-4), or a high level of education (ISCED 5-6). Activity status distinguishes between those who report to be full time students, in paid employment or not in paid employment. In the third step of the analyses – when analysing the stability of intentions – we distinguished between those who were not working in both the waves or have lost their job, those who enter employment in the second wave and those who reported being in paid work in both the waves of the survey. As for what concerns partnership situation – which as shown in previous studies is a key factor shaping individuals' fertility intentions (Heaton *et al.* 1999, Spéder and Kapitány 2009) – in the first two steps of the analyses we distinguish between partnered and unpartnered respondents. In the third step, we consider instead the stability of partnership status and thus distinguish between people remaining unpartnered in both waves, those who started a new partnership, those who experienced a union dissolution without forming a new partnership and those who were in a partnership in both the waves. The results of the multivariate analyses will be reported in terms of their predicted probabilities; the full models as well as the main descriptive statistics of the different samples utilized are reported in the statistical Appendix.

Although the majority of studies on childlessness have been carried out on women only, the few analyses that have taken men into account show the existence of a gendered pattern in the effects of socio-demographic characteristics on childlessness (Jalovaara and Fasang 2017, Keizer *et al.* 2008, Tocchioni, 2018). Therefore, we analyse the full sample of respondents including a variable controlling for respondent's gender and introducing, in further progressive steps, the interactions between gender and the main independent variables to test for possible gender-specific mechanisms. The descriptive statistics for the samples utilized in the three different steps of the analyses are reported in tables A.1 to A.3.

## Results

### 5.1 Reporting the intention to remain childlessness

In the first step of our analyses, we focus on the data from the first wave of the GGS and, in particular, we focus on factors associated with reporting the intention to remain childless in the three years following the interview (figure 2, table A.4). In general, the results indicate that being a man, having a low educational level, not having a partner and being a student are all factors associated with a higher likelihood of reporting the intention of remaining childless in the next three years. It also emerges that childlessness intentions are age-dependent, in particular, there is a U-shaped relation between age and the intention to remain childless. The probability to report the desire not to have children decreases between age 20 to 39 for men, and between age 20 to 35 for women to then increase at later ages. The difference between men

---

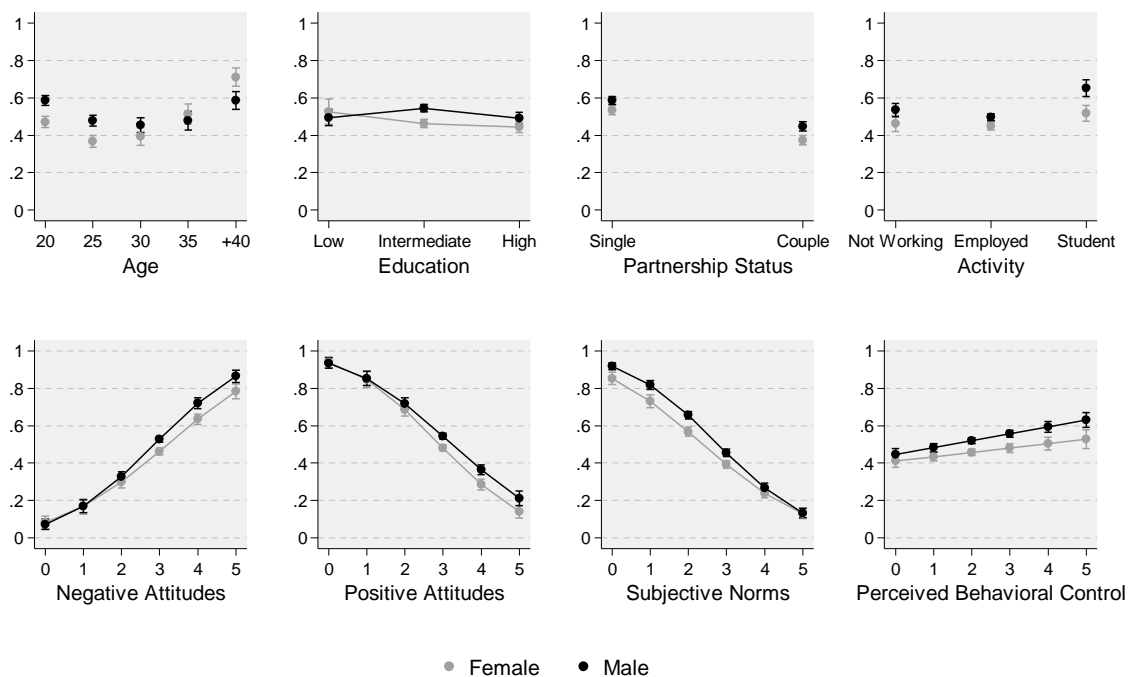
<sup>7</sup> The 20-24 age class was included in the analyses for three main reasons: first, between the countries considered there are important differences in the average age at which the transition to the first child is made; second, the results of the analyses were not significantly affected by the exclusion of this age group (see sensitivity analyses below); third, in so doing we retain as much possible the statistical power of the sample analysed.

and women in the inflexion point probably reflects an earlier upper-limit age for motherhood than for fatherhood.

Interestingly, gender differences are also found in the relation between an individual's educational level and the intention to remain childless. Among women, the low educated are more likely than the medium/highly educated to report the desire not to become a parent in the following three years. Conversely among men, those with an intermediate educational level are the most likely to express a preference for childlessness. These differences, however, are small. The results reported in figure 2 also shows that – besides individual's socio-demographic characteristics – attitudes, social norms and PBC are strongly associated with fertility intentions.

In line with what suggested by the TPB approach and our hypotheses, we find that more pronounced negative and positive attitudes are strongly and significantly correlated with a higher and lower likelihood of reporting short-term childless intentions, respectively. A higher perceived normative pressure to have children is associated with a lower probability of holding the intention to remain childless. Next, consistent with what we expected, those individuals who see the transition to parenthood as more contingent on being in a specific socio-economic situation are more likely to report the intention not to become a parent. It is worth noting that the role played by ideational factors appears to be similar for men and women, although the association between these factors and childlessness intentions emerges to be slightly weaker for women than for men.

Figure 2: Predicted probabilities of having the intention to remain childless in the next three years, men (black line) and women (grey line).

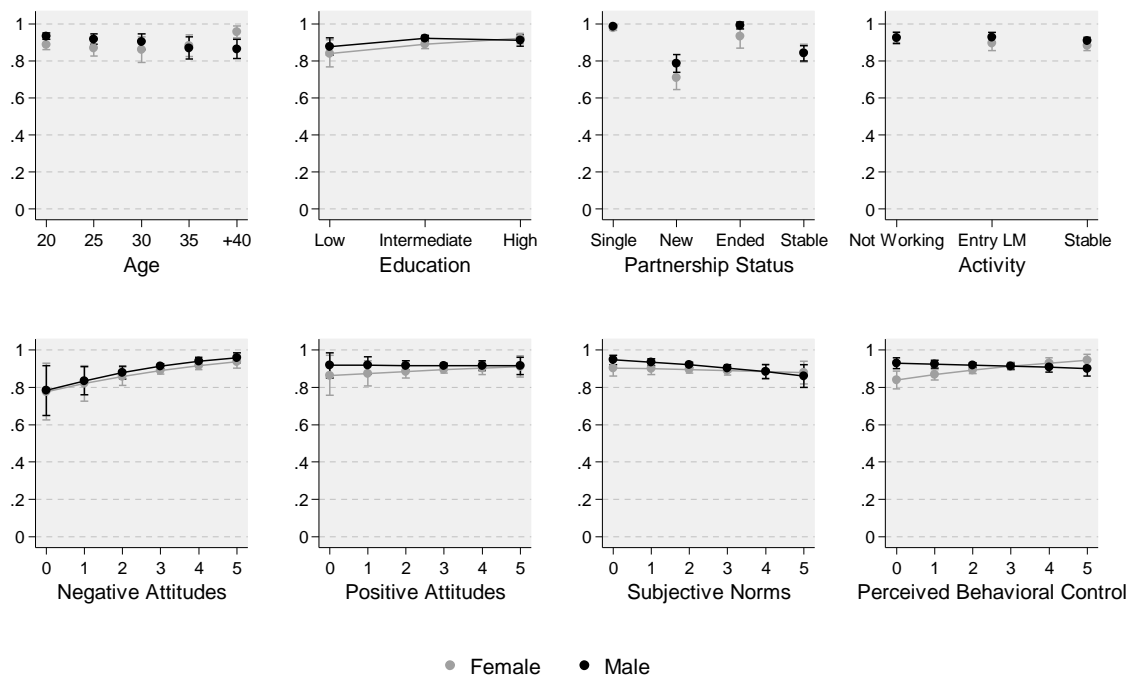


Source: GGS Wave1 and Wave2, authors' calculation. Note: predicted probabilities based on Models 1-9 of Table A.4 in the Appendix. 95% confidence intervals.

## 5.2 Realising the intention to remain childless.

Among the 2533 respondents who reported the desire to remain childless in the three years following their first interview, only 238 (9%) did not comply with this intention and became parents. The analyses indicate that the realisation of a childlessness intention is quite ubiquitous across different individual's socio-demographic conditions (figure 3, table A.5). The only relevant exception, in line with findings reported in previous studies (Sobotka and Testa 2008), is represented by those respondents who in-between the two waves of the survey moved from being single to being partnered. Among the ideational factors taken into consideration, lower levels of negative attitudes and PBC (for women) are also associated with a lower likelihood of fulfilling the previously stated desire of not becoming a parent.

Figure 3: Predicted probabilities of being childless three years after having expressed intentions to be childless for men (black line) and women (grey line).



Source: GGS Wave1 and Wave2, authors' elaboration. Note: predicted probabilities based on Models 1-8 of Table A.5 in the Appendix. 95% confidence interval.

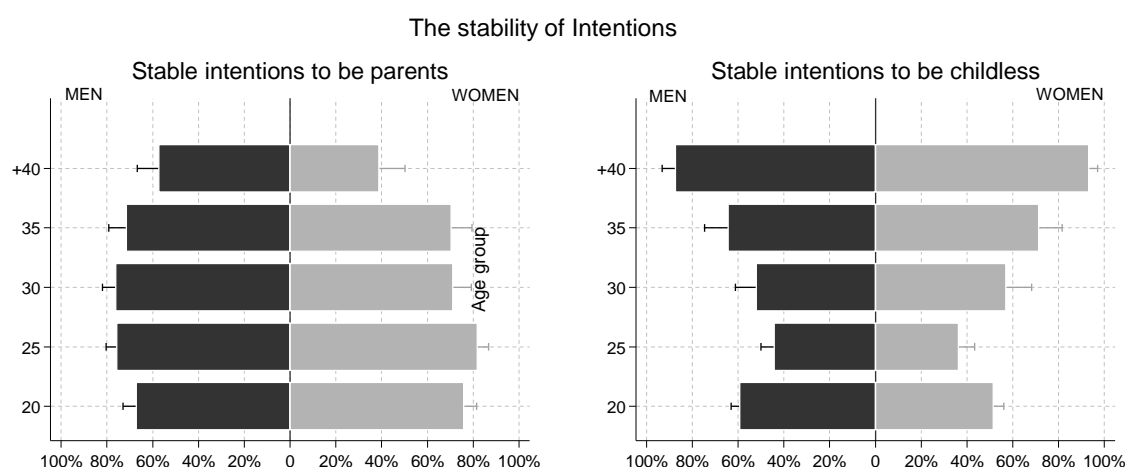
## 4.3. Maintaining the intention of remaining childless

In the third and last step of our analyses – taking into consideration only those respondents who remained childless between wave 1 and wave 2, independently of their declared fertility intention in wave 1 – we explored the stability of fertility intentions and its correlates.

Figure 4 reports, by gender and age group, the percentages of respondents who, across the two waves of the survey, maintained their parenthood or childless intention. These descriptive statistics do not provide strong support – if any – to our first hypothesis, i.e., (non-normative) childlessness intentions are more likely to be maintained than parenthood ones. As a matter of fact, the stability of childlessness intentions seems to be higher than that of becoming a parent only among the oldest respondents (40+). On the opposite, the intention to become a parent is

more stable than the one of remaining childless among the three youngest age groups. Also, while the stability of parenthood intentions is similar across the different age groups, the stability of the short-term desire of not having children varies considerably across the different age groups. In particular, figure 4 displays a U-shaped relation similar to that already observed in the first step of our analyses.

Figure 4: Proportion of respondents maintaining (across wave 1 and 2 of the survey) the intention to become a parent or remain childless in the three years after the interview, by sex and age.



Source: GGS Wave 1 and Wave 2, authors' elaboration. 95% confidence intervals.

Using multinomial logistic regressions, we also explored factors associated with the probability of respondents being part of the group of the voluntary childless, postponers, abandoners or involuntary childless (figures 5 and 6, table A.6).

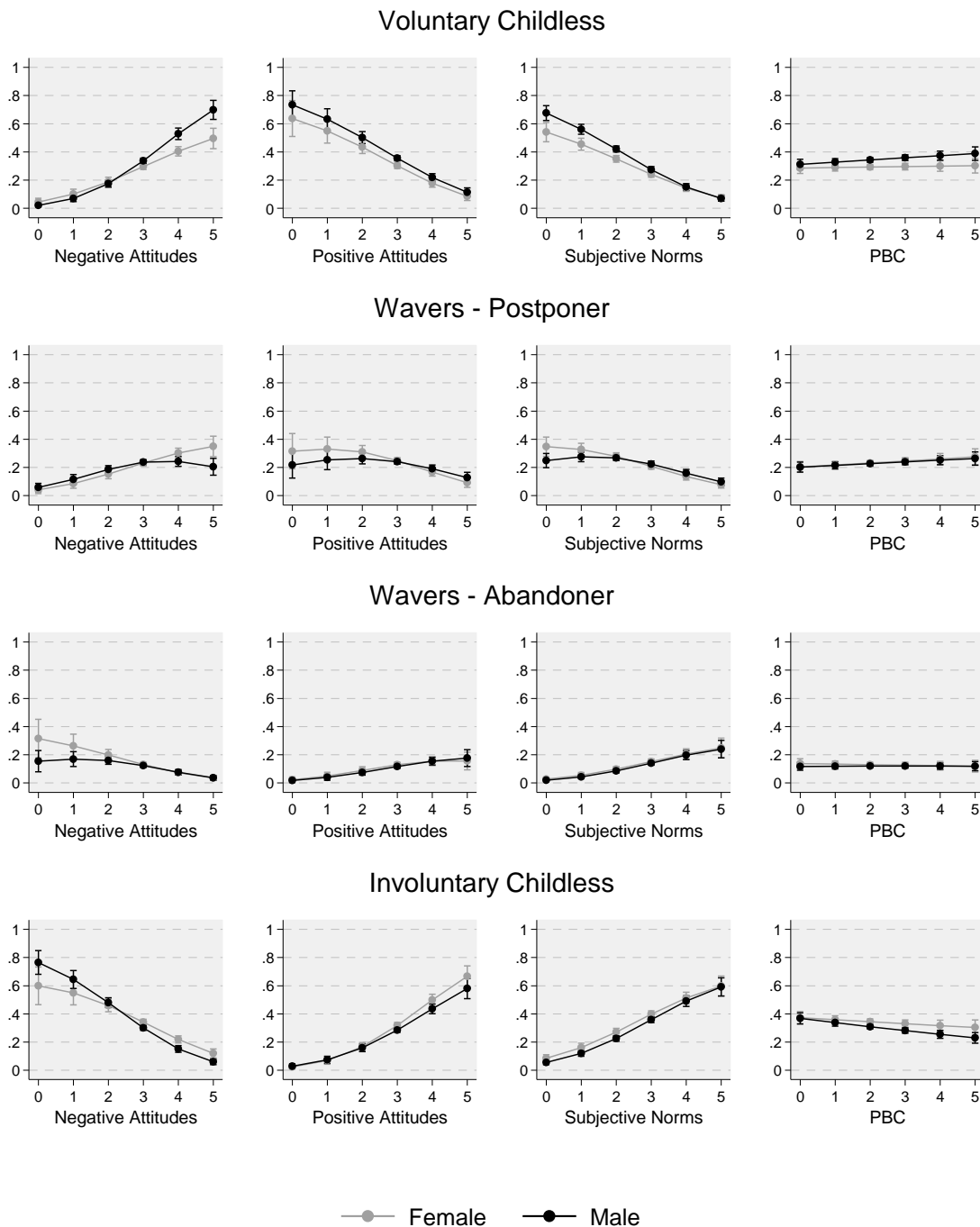
The results of the analyses show the relevant role played by ideational factors in shaping the stability of fertility intentions (figure 5). Stronger negative attitudes towards becoming a parent are associated with a greater probability of maintaining the intention to be childless, whereas they are negatively correlated with the likelihood of being involuntarily childless. The intensity of the relation is higher for men than for women. At the same time, negative attitudes are also associated with a higher probability of being a postponer – and thus changing from desired childlessness to desired parenthood – and a lower likelihood of abandoning the idea of having children. Mirroring these patterns, it emerges that people with stronger positive attitudes toward parenthood are more likely to maintain the intention to become parents and, *vice versa*, less likely to maintain childlessness intentions. Higher levels of positive attitudes are also associated with a lower likelihood of being a postponer. These findings partially corroborate our *second hypothesis*: that stronger negative attitudes towards parenthood are positively correlated with the stability of childlessness intentions.

The role of the subjective norms – and thus of the perceived pressure to become a parent – play a similar role than positive attitudes: they are associated positively with involuntary childlessness and negatively with voluntary childlessness. At the same time, they are positively associated with quitting the idea of having a child in the short term and with, whereas they are negatively associated with being a postponer. This is partly in line with the *third hypothesis*, according to which the perception of a normative pressure for having a child is negatively associated with the chances of maintaining childlessness intentions.



Finally, the results of the analyses suggest that the correlation between the stability of fertility intentions and ideational factors is the lowest for the ideational factors connected with the PBC: different individual's scores on the behavioural control index do not significantly affect women's propensity to maintain plans toward motherhood or childlessness. Only among men, perceived behavioural control appears to have a (minor) role: higher scores are associated with a greater probability of maintaining childlessness intentions, and with a lower probability of maintaining the intention to be a parent. These results support our *fourth hypothesis* according to which people that associate stronger socio-economic barriers to having a child are more likely to maintain the intention to remain childless.

Figure 5: Predicted probabilities of being voluntary childless, postponer, abandoner or involuntary childless according to different levels of negative and positive attitudes, perceived norms and PBC, for men (black line) and women (grey line).



Source: GGS Wave1 and Wave2, authors' elaboration. Note: predicted probabilities based on Models 4-7 of Table A.6 in the Appendix. 95% confidence interval.

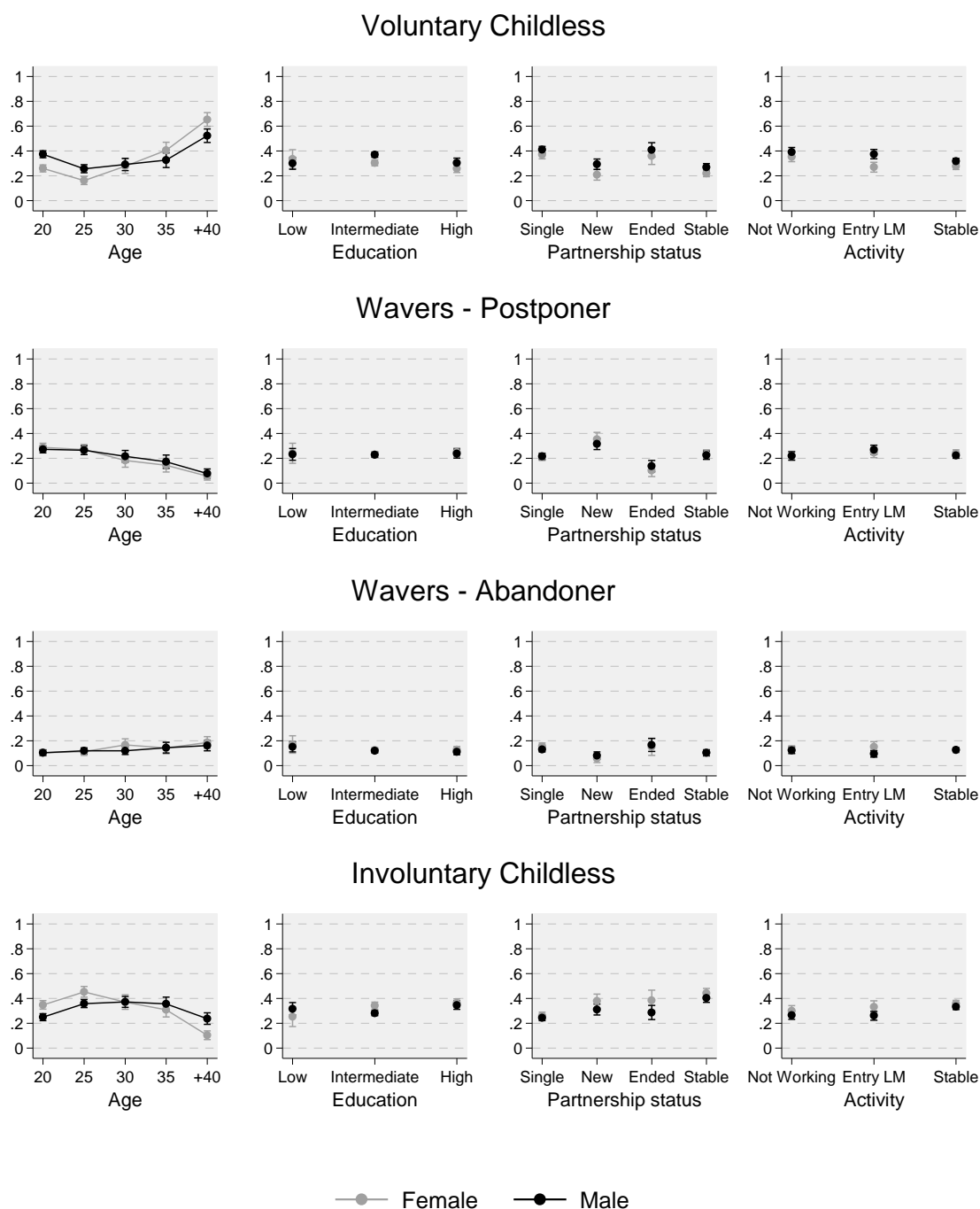
When considering socio-demographic characteristics, once more age emerges as an important factor correlated with the stability of fertility intentions. Women who are 30 years old or older and men in their 40s are more likely than younger individuals to report voluntary vs. involuntary childlessness (figure 6). Age is also negatively associated with the likelihood of being categorised as a postponer, while increasing that of being an ‘abandoner’.

For women, a higher educational level is positively associated with undesired childlessness and negatively correlated with voluntary childlessness (in line with the findings reported by Kreyenfeld and Konietzka 2017). For men, the relationship between educational level and being voluntary childless is a reversed U-shaped one. The least and the most educated are simultaneously less likely to be childless by choice and more likely to be voluntarily childless. No significant difference emerges across different educational levels on the probability of postponing or abandoning parenthood plans, both between women and men.

Change and stability in partnership status play an important role in shaping fertility intentions. Those who were unpartnered in both waves or ended a partnership in-between waves have a higher probability of being in the group of voluntary childless. On the opposite, being constantly in a partnership increases the probability of being categorised in the group of involuntary childlessness. Forming a new union is also associated with a higher likelihood of being a postponer and thus with changing mind about desired childlessness, whereas those who ended an existing union are the least likely to be in this group.

Intentions to be childless are only negligibly affected by activity status. Not being in paid work in both waves of the survey is associated with a higher likelihood of reporting voluntary absence of children and a lower likelihood of being involuntarily childless; the opposite relations hold for those who are in stable employment.

Figure 6: Predicted probabilities of being voluntary childless, postponer, abandoner or involuntary childless according to different socio-demographic characteristics, for men (black line) and women (grey line).



Source: GGS Wave1 and Wave2, authors' elaboration. Note: predicted probabilities based on Models 0-3 of Table F in the Appendix. 95% confidence interval.

#### **4.4. Sensitivity analyses**

The empirical analyses reported above include both partnered and non-partnered individuals and respondents aged between 20 and 50 years. Fertility choices are strongly affected by the individual's age and are typically made at the couple level – looking for a partner is part of the decision-making process in regard to having a child (Jalovaara and Fasang 2017). Therefore, we performed a series of sensitivity analyses to address these potential limitations.

Firstly, we replicated our analyses considering only partnered individuals. We found small differences in the size of (some of) the coefficients and their significance levels; however, the overall pattern of the associations does not change. Secondly, the analyses were replicated on two subsamples in different age groups: the first includes only individuals over 35; the second subsample includes only respondents aged between 30 and 39. Once again the results do not substantially differ from the ones reported above.

A further limitation of our analytic strategy is that, also due to the small number of cases available, we pooled together respondents from a quite heterogeneous group of countries. The sample size was not sufficient to fit country-specific regression models, indeed. However, we tried to partially address this issue by running the analyses on Western European countries only, thus excluding former communist countries. The results of these latter analyses indicate that the signs of the associations reported above do not change when excluding Eastern European countries from the analyses.<sup>8</sup>

#### **5. Conclusions**

After reaching its lowest level among cohorts of women born between 1935 and 1945, the childlessness rate in Europe has been on the increase among post-WWII birth cohorts, reaching levels around or higher than 30% in several countries.

Even if the quota of childless women among the 1970s birth cohorts is similar to that registered at the beginning of the 20th century, it has been argued that the paths to childlessness are markedly different from what they were in the past. In particular, scholars have suggested that there has been an increase in the number of women who are (involuntarily) childless due to the postponement of the decision to become a parent and, most importantly, in the number of women who are voluntarily childless. Nonetheless, most of the previous literature on the topic has focused on the 'accidental' or 'involuntary' component of childlessness. The aim of this paper, instead, has been to shed light on the decision to be childless, and it has done so by focusing on the factors associated with the intention to remain childless in the short term and the realisation and stability of such intention.

The results of our analyses indicate that ideational factors – i.e. individual's attitudes, social norms and PBC – are significantly associated with the intention to be childless. Next, according to our results, a preference for not having a child in the three years following the interview is more frequently realised than a preference for becoming a parent. Short-term intentions seem to be a better predictor of future behaviour in the case of childlessness than in the case of parenthood. However, contrary to our expectations, individuals' intentions to be childless are not more stable than the intention to become a parent. It is only among those who are 40 years old or older that childlessness intentions are maintained more frequently than parenthood ones. When considering socio-economic and ideational factors connected with the stability of childlessness intentions, we have found that socio-economic characteristics and other factors

---

<sup>8</sup> All of the results of the sensitivity analyses are available, upon request, from the authors.

connected with individuals' perceived control, only weakly relate with being voluntarily or involuntarily childless. On the contrary, individuals' attitudes towards parenthood and perceived social pressure to become a parent are important correlates of the stability of childlessness and parenthood intentions. Thus, our analysis suggests that being childless is not always the result of perceived or actual (lack of) opportunities and external constraints to childbearing, but it could be a choice originating from personal and intimate domains of life.

This study has a number of important limitations, especially in relation to the limited length of the observation period and the need to pool data from different countries. These shortcomings are likely to be overcome when more and better data will be made available. Adopting a long-term perspective on voluntary childless plans remains an important challenge for future research. In contrast to motherhood, childlessness is a choice that remains reversible for a long time. Future studies should focus on the evolution of the life course of voluntary childless individuals, considering childlessness as both a preference and an outcome. In spite of these limitations, however, our results can improve our understanding of the dynamics of the micro-level social processes governing childlessness intentions and thus voluntary childlessness.

## References

- Ajzen, I. (1985). 'From Intentions to Actions: A Theory of Planned Behavior' in Kuhl J., Beckmann J. (ed.), *Action Control. SSSP Springer Series in Social Psychology*, Berlin, Heidelberg: Springer, pp. 11-39
- Ajzen, I. (1991). 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes* 50(2): 179-211.
- Ajzen, I. (2005). Attitudes, personality, and behavior. McGraw-Hill Education (UK).
- Ajzen, I., and Fishbein, M. (1973). 'Attitudinal and normative variables as predictors of specific behavior', *Journal of Personality and Social Psychology* 27(1): 41.
- Ajzen, I., and Klobas, J. (2013). 'Fertility intentions: An approach based on the theory of planned behavior', *Demographic Research* 29(8): 203-232.
- Albertini, M., and Kohli, M. (2017). 'Childlessness and intergenerational transfers in later life', in Kreyenfeld, M., and Konietzka, D. (ed.) *Childlessness in Europe: Contexts, Causes, and Consequences*. New York: Springer, pp. 351-368.
- Allen, R. E. S., and Wiles, J. L. (2013). 'How Older People Position Their Late-Life Childlessness: A Qualitative Study', *Journal of Marriage and Family* 75(1): 206-220.
- Ashburn-Nardo, L. (2017). 'Parenthood as a moral imperative? Moral outrage and the stigmatization of voluntarily childfree women and men', *Sex Roles* 76(5-6): 393-401.
- Balbo, N., Billari, F. C., and Mills, M. (2013). 'Fertility in advanced societies: A review of research', *European Journal of Population* 29(1): 1-38.
- Bandura, A. (1977). 'Self-efficacy: toward a unifying theory of behavioral change', *Psychological Review* 84(2): 191-215.
- Bernardi, L., and Klärner, A. (2014). 'Social networks and fertility', *Demographic Research* 30(22): 641-670.
- Bernardi, L., Mynarska, M., and Rossier, C. (2015). 'Uncertain, changing and situated fertility intentions', in Philipov, D., Liefbroer, A. C., and Klobas, J. E. (ed.). *Reproductive decision-making in a macro-micro perspective*. Dordrecht: Springer Netherlands, pp. 113-139.
- Berrington, A., and Pattaro, S. (2014). 'Educational differences in fertility desires, intentions and behaviour: A life course perspective', *Advances in Life Course Research* 21:10-27.

- Billari, F. C., Philipov, D., and Testa, M. R. (2009). 'Attitudes, norms and perceived behavioural control: Explaining fertility intentions in Bulgaria', *European Journal of Population* 25(4): 439-465.
- Bongaarts, J. (2001). 'Fertility and reproductive preferences in post-transitional societies', *Population and Development Review* 27: 260-281.
- Bühler C., and Fratzak, E. (2007) 'Learning from Others and Receiving Support: The Impact of Personal Networks on Fertility Intentions in Poland', *European Societies*, 9 (3): 359-382.
- Chancey, L., and Dumais, S. A. (2009). 'Voluntary childlessness in marriage and family textbooks, 1950-2000', *Journal of Family History* 34(2): 206-223.
- Ciritel, A., De Rose, A. and Arezzo, M.F. (2019) Childbearing intentions in a low fertility context: the case of Romania. *Genus* 75(4)
- Dommermuth, L., Klobas, J., and Lappegård, T. (2011). 'Now or later? The Theory of Planned Behavior and timing of fertility intentions', *Advances in Life Course Research* 16(1): 42-53.
- Dommermuth, L., Klobas, J., and Lappegård, T. (2015). 'Realization of fertility intentions by different time frames', *Advances in Life Course Research* 24: 34-46.
- Dykstra, P. A., and Hagestad. (2007). 'Childlessness and parenthood in two centuries: Different roads – different maps?', *Journal of Family Issues* 28(11): 1518–1532.
- Dykstra, P. A., and Wagner, M. (2007). 'Pathways to Childlessness and Late-Life Outcomes', *Journal of Family Issues* 28(11): 1487–1517.
- Emery, T. and Caporali, A. (2019) 'Compliance and comparability in a cross-national survey', *SocArXiv Papers*, doi: 10.31235/osf.io/8c24f
- Fahlén, S. (2013) 'Capabilities and Childbearing Intentions in Europe', *European Societies* 15 (5): 639-662
- Fiori, F., Rinesi, F., and Graham, E. (2017) 'Choosing to remain childless? A comparative study of fertility intentions among women and men in Italy and Britain', *European Journal of Population*, 33, 319-350.
- Fokkema, F., Kveder, A., Hiekel, N., Emery, T. and Liefbroer, a. (2016) 'The Generations and Gender Programme Wave 1: Sampling and Weighting', *Demographic Research*, 34(18): 499-524.
- Gauthier, A. H., Cabaço, S. L. F. and Emery, T. (2018) 'Generations and gender survey study profile' *Longitudinal and Life course Studies*, 9(4): 456-465.
- Gibney, S., Delaney, L., Codd, M., and Fahey, T. (2015). 'Lifetime Childlessness, Depressive Mood and Quality of Life Among Older Europeans', *Social Indicators Research* 130(1): 305-323.
- Gillespie, R. (2001). 'Contextualizing voluntary childlessness within a postmodern model of reproduction: implications for health and social needs', *Critical Social Policy* 21(2): 139–159.
- Hansen, T., Slagsvold, B., and Moum, T. (2009). 'Childlessness and psychological well-being in midlife and old age: An examination of parental status effects across a range of outcomes', *Social Indicators Research* 94(2): 343-362.
- Heaton T. B., Jacobson C. K. and Holland, K. (1999) 'Persistence and change in decisions to remain childless', *Journal of Marriage and Family*, 61(2): 531- 539.
- Jalovaara, M., and Fasang, A. E. (2017). 'From never partnered to serial cohabitators: Union trajectories to childlessness', *Demographic Research* 36(55): 1703-1720.
- Keizer, R., Dykstra, P. A., and Jansen, M. D. (2008). 'Pathways into childlessness: evidence of gendered life course dynamics', *Journal of Biosocial Science* 40(6): 863-878.



- Keizer, R., Dykstra, P. A., and Poortman, A. R. (2010). 'Life outcomes of childless men and fathers', *European Sociological Review* 26(1): 1-15.
- Kendig, H., Dykstra, P. A., van Gaalen, R. I. and Melkas, T. 'Health of aging parents and childless individuals' *Journal of Family Issues*, 28(11): 1457-1486.
- Klobas, J. E., and Ajzen, I. (2015). 'Making the decision to have a child', in Philipov, D., Liefbroer, A. C., and Klobas, J. E. (ed.). *Reproductive decision-making in a macro-micro perspective*. Dordrecht: Springer Netherlands, pp. 41-78.
- Kohler, H.-P., Behrman, J. R., and Watkins, S. C. (2001). 'The density of social networks and fertility decisions: Evidence from South Nyanza District, Kenya', *Demography* 38(1): 43-58.
- Kohli, M., and Albertini, M. (2009). 'Childlessness and intergenerational transfers: what is at stake?', *Ageing and Society* 29(08): 1171-1183
- Koropecj-Cox, T., Romano, V., and Moras, A. (2007). 'Through the lenses of gender, race, and class: Students' perceptions of childless/childfree individuals and couples', *Sex Roles* 56(7-8): 415-428.
- Kreyenfeld, M., and Konietzka, D. (2017). 'Childlessness in East and West Germany: Long-term trends and social disparities', in Kreyenfeld, M., and Konietzka, D. (ed.) *Childlessness in Europe: Contexts, Causes, and Consequences*. New York: Springer, pp. 97-114.
- Kurowska, A. (2019). 'Experienced and anticipated changes in household economic situation and childless women's short-term intentions to become mothers', *European Societies*: 1-19
- Lesthaeghe, R. J. (2010). 'The unfolding story of the second demographic transition', *Population and Development Review* 36(2): 211-251.
- Letherby, G. (2002). 'Childless and bereft?: Stereotypes and realities in relation to "voluntary" and "involuntary" childlessness and womanhood', *Sociological Inquiry* 72(1): 7-20.
- McAllister, F. and Clarke, L. (1998) *Choosing childlessness*. London: Family Policy Studies Centre, Joseph Rowntree Foundation.
- Mencarini, L., Vignoli, D., and Gottard, A. (2015). 'Fertility intentions and outcomes: Implementing the theory of planned behavior with graphical models', *Advances in Life Course Research* 23: 14-28.
- Miettinen, A., Rotkirch, A., Szalma, I., Donno, A., and Tanturri, M. L. (2015). *Increasing childlessness in Europe: Time trends and country differences*. FamiliesAndSocieties (FamiliesAndSocieties Working Paper 33).
- Miller, W. B. (2011). 'Differences between fertility desires and intentions: implications for theory, research and policy', *Vienna Yearbook of Population Research* 9: 75-98.
- Mueller, K. A., and Yoder, J. D. (1999). 'Stigmatization of non-normative family size status', *Sex Roles* 41(11-12): 901-919.
- Ní Bhrolcháin, M., Beaujouan, E. and Berrington, A. (2010) 'Stability and change in fertility intentions in Britain, 1991-2007', *Population Trends*, 141(1): 13-35.
- OECD. (2015). SF2.5 Childlessness. OECD Family Database.
- OECD. (2016). SF2.2: Ideal and actual number of children. OECD Family Database.
- Park, K. (2002). 'Stigma Management Among the Voluntarily Childless', *Sociological Perspectives* 45(1): 21-45.
- Philipov, D. (2009). 'Fertility intentions and outcomes: the role of policies to close the gap', *European Journal of Population* 25(4): 355.
- Rovi, S. L. D. (2004) 'Taking "NO" for an answer: Using negative reproductive intentions to study the childless/childfree', *Population Research and Policy Review*, 13(4): 343-365.

- Rowland, D. T. (2007). 'Historical Trends in Childlessness', *Journal of Family Issues* 28(10): 1311-1337.
- Schoen, R., Astone, N. M., Kim, Y. I., Nathanson, C. A., and Fields, J. M. (1999) 'Do fertility intentions affect fertility behaviour?', *Journal of Marriage and Family*, 61(3): 790-799.
- Sobotka T., and Testa M. R. (2008). 'Attitudes and Intentions Toward Childlessness in Europe', in Höhn, C., Avramov, D., and Kotowska, I. E. (ed.) *People, Population Change and Policies. European Studies of Population, vol 16/1*. Dordrecht: Springer, pp. 177-211.
- Sobotka, T. (2017). 'Childlessness in Europe: Reconstructing Long-Term Trends Among Women Born in 1900-1972', in Kreyenfeld, M., and Konietzka, D. (ed.) *Childlessness in Europe: Contexts, Causes, and Consequences*. New York: Springer, pp. 17-53.
- Spéder, Z., and Kapitány, B. (2009). 'How are time-dependent childbearing intentions realized? Realization, postponement, abandonment, bringing forward', *European Journal of Population*, 25: 503-523.
- Spéder, Z., and Kapitány, B. (2015). 'Influences on the link between fertility intentions and behavioural outcomes', in Philipov, D., Liefbroer, A. C., and Klobas, J. E. (ed.). *Reproductive decision-making in a macro-micro perspective*. Dordrecht: Springer Netherlands, pp. 79-112.
- Tanturri, M. L., and Mencarini, L. (2008). 'Childless or childfree? Paths to voluntary childlessness in Italy', *Population and Development Review* 34(1): 51-77.
- Tanturri, M. L., Mills, M., Rotkirch, A., Sobotka, T., Takács, J., Miettinen, A., Faludi, C., Kantsa, V., and Nasiri, D. (2015). *State-Of-The-Art Report: Childlessness in Europe*. FamiliesAndSocieties (FamiliesAndSocieties Working Paper 32).
- Testa, M. R., and Basten, S. (2014). 'Certainty of meeting fertility intentions declines in Europe during the "Great Recession"', *Demographic Research* 31(23): 687-734.
- Testa, M. R. and Bolano D. (2018). 'From intentions to birth: Gendered paths of realization in a multi-dimensional life course perspective', in Kapella, O., Schneider, N., and Rost, H. (ed.) *Familie-Bildung-Migration*. Opladen, Berlin & Toronto: Verlag Barbara Budrich, pp. 105-127.
- Thomson, E. (1997). 'Couple childbearing desires, intentions, and births', *Demography* 34(3): 343-354.
- Tocchioni, V. (2018). 'Exploring the childless universe: Profiles of women and men without children in Italy', *Demographic Research* 38(19): 451-470.
- Toulemon, L., and Testa, M. R. (2005). 'Fertility intentions and actual fertility: A complex relationship', *Population and Societies* 415(4): 1-4.
- Trappe, H., and Kuhnt, A.-K. (2016). 'Channels of social influence on the realization of short-term fertility intentions in Germany', *Advances in Life Course Research* 27: 16-29.
- Van de Kaa, D. J. (2001). 'Postmodern fertility preferences: from changing value orientation to new behavior', *Population and Development Review* 27: 290-331.
- Veevers, J. (1973). 'Voluntary Childlessness: A Neglected Area of Family Study', *The Family Coordinator* 22(2):199-205.
- Vergauwen, J., Wood, J., de Wachter, D. and Neels, K. (2015) 'Quality of demographic data in GGS wave 1', *Demographic Research*, 32(24): 723-774.
- Vikat, A., Spéder, Z., Beets, G., Billari, F. C., Bühler, C., Désesquelles, A., Tineke Fokkema, T., Hoem, J.M., MacFonald, A., Neyer, G., Pailhé, A., Pinnelli, A., and Solaz, A. (2007). 'Generations and gender survey: Concept and design', in UNECE (ed.) *Generations and Gender Programme. Concepts and Guidelines*. New York, Geneva: United Nations: 1-32.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

Appendix

Table A.1: Descriptive statistics of the analysis related to formation of intentions to be childless

Variables	<i>Perspective Parent</i>					<i>Perspective Childless</i>				
	n	Mean	Std. Err.	Min	Max	n	Mean	Std. Err.	Min	Max
20-24	2,561	0.26	0.44	0	1	2,533	0.51	0.50	0	1
25-29	2,561	0.34	0.47	0	1	2,533	0.21	0.41	0	1
30-34	2,561	0.20	0.40	0	1	2,533	0.09	0.28	0	1
35-39	2,561	0.12	0.32	0	1	2,533	0.07	0.26	0	1
+40	2,561	0.08	0.27	0	1	2,533	0.12	0.33	0	1
Male	2,561	0.54	0.50	0	1	2,533	0.57	0.50	0	1
Low Education	2,561	0.09	0.29	0	1	2,533	0.10	0.30	0	1
Intermediate Education	2,561	0.56	0.50	0	1	2,533	0.67	0.47	0	1
High Education	2,561	0.35	0.48	0	1	2,533	0.23	0.42	0	1
In couple	2,561	0.52	0.50	0	1	2,533	0.37	0.48	0	1
Not Working	2,561	0.18	0.39	0	1	2,533	0.17	0.37	0	1
Working	2,561	0.74	0.44	0	1	2,533	0.58	0.49	0	1
Student	2,561	0.08	0.28	0	1	2,533	0.26	0.44	0	1
Positive Attitudes	2,561	3.23	0.58	0	5	2,533	2.97	0.60	0	5
Negative Attitudes	2,561	2.88	0.66	0	5	2,533	3.17	0.61	0	5
Subjective Norms	2,561	3.03	0.91	0	5	2,533	2.20	0.93	0	5
PBC	2,561	2.03	1.13	0	5	2,533	2.25	1.13	0	5

Table A.2: Descriptive statistics of the analysis related to the realisation of the intention to be childless

Variables	<i>Realised intentions to be childless</i>					<i>Become Parent</i>				
	n	Mean	Std. Err.	Min	Max	n	Mean	Std. Err.	Min	Max
20-24	2,295	0.52	0.50	0	1	238	0.44	0.50	0	1
25-29	2,295	0.20	0.40	0	1	238	0.24	0.43	0	1
30-34	2,295	0.09	0.28	0	1	238	0.11	0.32	0	1
35-39	2,295	0.07	0.26	0	1	238	0.11	0.31	0	1
+40	2,295	0.13	0.33	0	1	238	0.11	0.31	0	1
Men	2,295	0.57	0.50	0	1	238	0.54	0.50	0	1
Low Education	2,295	0.10	0.30	0	1	238	0.14	0.35	0	1
Intermediate Education	2,295	0.67	0.47	0	1	238	0.64	0.48	0	1
High Education	2,295	0.23	0.42	0	1	238	0.22	0.42	0	1
In couple	2,295	0.36	0.48	0	1	238	0.42	0.50	0	1
Not working or job loss	2,295	0.17	0.37	0	1	238	0.18	0.39	0	1
Entry in labor market	2,295	0.57	0.50	0	1	238	0.68	0.47	0	1
Stable Job	2,295	0.27	0.44	0	1	238	0.14	0.35	0	1
Positive Attitudes	2,295	2.97	0.60	0	5	238	2.96	0.58	0	5
Negative Attitudes	2,295	3.18	0.61	0	5	238	3.06	0.62	1	5
Subjective Norms	2,295	2.19	0.92	0	5	238	2.34	0.97	1	5
PBC	2,295	2.25	1.14	0	5	238	2.23	1.13	0	5

Table A.3: Descriptive statistics of the analysis related to the stability of intentions to be childless

<i>Voluntary childless</i>						<i>Postponers</i>				
Variables	n	Mean	Std. Err.	Min	Max	n	Mean	Std. Err.	Min	Max
20-24	1,333	0.50	0.50	0	1	962	0.54	0.50	0	1
25-29	1,333	0.14	0.35	0	1	962	0.29	0.45	0	1
30-34	1,333	0.08	0.27	0	1	962	0.09	0.29	0	1
35-39	1,333	0.08	0.27	0	1	962	0.05	0.23	0	1
+40	1,333	0.20	0.40	0	1	962	0.03	0.17	0	1
Men	1,333	0.57	0.50	0	1	962	0.57	0.50	0	1
Low Education	1,333	0.10	0.30	0	1	962	0.09	0.29	0	1
Intermediate Education	1,333	0.70	0.46	0	1	962	0.64	0.48	0	1
High Education	1,333	0.20	0.40	0	1	962	0.27	0.44	0	1
Serial single	1,333	0.50	0.50	0	1	962	0.45	0.50	0	1
New partner	1,333	0.11	0.32	0	1	962	0.22	0.42	0	1
Dissolution	1,333	0.10	0.30	0	1	962	0.04	0.21	0	1
Stable partner	1,333	0.29	0.45	0	1	962	0.29	0.45	0	1
Not working or job loss	1,333	0.28	0.45	0	1	962	0.24	0.42	0	1
Entry in labor market	1,333	0.21	0.41	0	1	962	0.27	0.44	0	1
Stable Job	1,333	0.51	0.50	0	1	962	0.50	0.50	0	1
Positive Attitudes	1,333	2.91	0.60	0	5	962	3.05	0.59	0	5
Negative Attitudes	1,333	3.21	0.61	0	5	962	3.14	0.62	1	5
Subjective Norms	1,333	2.12	0.93	0	5	962	2.28	0.90	0	5
PBC	1,333	2.19	1.16	0	5	962	2.34	1.09	0	5

<i>Abandoners</i>						<i>Involuntary Childless</i>				
Variables	n	Mean	Std. Err.	Min	Max	n	Mean	Std. Err.	Min	Max
20-24	512	0.28	0.45	0	1	1,318	0.27	0.44	0	1
25-29	512	0.25	0.43	0	1	1,318	0.35	0.48	0	1
30-34	512	0.17	0.37	0	1	1,318	0.19	0.39	0	1
35-39	512	0.13	0.34	0	1	1,318	0.13	0.33	0	1
+40	512	0.18	0.38	0	1	1,318	0.07	0.25	0	1
Men	512	0.59	0.49	0	1	1,318	0.57	0.50	0	1
Low Education	512	0.11	0.32	0	1	1,318	0.08	0.27	0	1
Intermediate Education	512	0.58	0.50	0	1	1,318	0.56	0.50	0	1
High Education	512	0.31	0.46	0	1	1,318	0.37	0.48	0	1
Serial single	512	0.59	0.49	0	1	1,318	0.41	0.49	0	1
New partner	512	0.07	0.26	0	1	1,318	0.14	0.34	0	1
Dissolution	512	0.09	0.28	0	1	1,318	0.07	0.26	0	1
Stable partner	512	0.26	0.44	0	1	1,318	0.39	0.49	0	1
Not working or job loss	512	0.25	0.43	0	1	1,318	0.19	0.39	0	1
Entry in labor market	512	0.16	0.37	0	1	1,318	0.16	0.36	0	1
Stable Job	512	0.59	0.49	0	1	1,318	0.66	0.47	0	1
Positive Attitudes	512	3.22	0.63	0	5	1,318	3.28	0.57	1	5
Negative Attitudes	512	2.85	0.67	0	4	1,318	2.86	0.67	0	5
Subjective Norms	512	3.02	0.85	1	5	1,318	2.98	0.92	0	5
PBC	512	2.18	1.14	0	5	1,318	2.08	1.14	0	5

Table A.4: Result of a series of logistic regression predicting the likelihood of having intentions to be childless (1) rather than intentions to be parent (0) in the short-term.

Variables	M0	M1	M2	M3	M4	M5	M6	M8	M9
Age of respondent (ref. 20-24)									
25-29	-	-	-	-	-	-	-	-	-
	(0.094)	(0.139)	(0.094)	(0.094)	(0.094)	(0.094)	(0.094)	(0.094)	(0.094)
30-34	-	-	-	-	-	-	-	-	-
	(0.119)	(0.182)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)
34-39	-0.263**	0.250	-0.263**	-0.270**	-0.259*	-0.265**	-0.261*	-0.257*	-0.261*
	(0.133)	(0.193)	(0.134)	(0.134)	(0.133)	(0.133)	(0.133)	(0.134)	(0.133)
+40	0.642***	1.491***	0.639***	0.642***	0.641***	0.641***	0.640***	0.654***	0.638***
	(0.133)	(0.200)	(0.133)	(0.133)	(0.133)	(0.133)	(0.133)	(0.133)	(0.133)
Sex of respondent (ref. Women)									
Men	0.391***	0.687***	0.511***	0.326***	0.440**	-0.164	-0.087	0.773***	0.213
	(0.075)	(0.120)	(0.095)	(0.100)	(0.172)	(0.370)	(0.400)	(0.213)	(0.154)
Highest level of education (ref. Intermediate)									
Low education	-0.092	-0.097	0.395*	-0.091	-0.092	-0.092	-0.090	-0.088	-0.097
	(0.125)	(0.126)	(0.225)	(0.125)	(0.126)	(0.125)	(0.125)	(0.126)	(0.125)
High education	-	-	-0.126	-	-	-	-	-	-
	(0.082)	(0.083)	(0.116)	(0.082)	(0.083)	(0.082)	(0.082)	(0.082)	(0.082)
Partnership status (ref. Single)									
Couple	-	-	-	-	-	-	-	-	-
	(0.086)	(0.086)	(0.086)	(0.120)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)
Activity status (ref. Inactive/Unemployed)									
Employed	-0.178*	-0.202**	-0.185*	-0.180*	-0.081	-0.180*	-0.179*	-0.181*	-0.170*
	(0.099)	(0.099)	(0.099)	(0.099)	(0.154)	(0.099)	(0.099)	(0.099)	(0.099)
Student	0.499***	0.516***	0.501***	0.493***	0.329*	0.499***	0.502***	0.503***	0.508***
	(0.131)	(0.132)	(0.131)	(0.131)	(0.187)	(0.131)	(0.131)	(0.131)	(0.131)
Home ownership (ref. No)									
Owner	0.032	0.036	0.031	0.034	0.040	0.034	0.035	0.031	0.035
	(0.086)	(0.087)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)
TPB Factors									
Negative Attitudes	1.126***	1.145***	1.130***	1.123***	1.131***	1.032***	1.127***	1.124***	1.130***
	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)	(0.087)	(0.063)	(0.063)	(0.063)
Positive Attitudes	-	-	-	-	-	-	-	-	-
	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.099)	(0.069)	(0.069)
Subjective Norms	-	-	-	-	-	-	-	-	-
	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.058)	(0.042)
PBC	0.193***	0.195***	0.195***	0.195***	0.191***	0.195***	0.192***	0.192***	0.146***
	(0.033)	(0.033)	(0.033)	(0.033)	(0.033)	(0.033)	(0.033)	(0.033)	(0.049)
Country (ref. Italy)									
Austria	-0.145	-0.062	-0.133	-0.150	-0.140	-0.132	-0.147	-0.126	-0.148
	(0.223)	(0.228)	(0.224)	(0.223)	(0.223)	(0.223)	(0.223)	(0.223)	(0.223)
France	-0.220	-0.112	-0.207	-0.217	-0.195	-0.218	-0.215	-0.181	-0.231
	(0.253)	(0.257)	(0.254)	(0.253)	(0.253)	(0.253)	(0.253)	(0.253)	(0.253)
Germany	-0.114	-0.029	-0.101	-0.117	-0.127	-0.106	-0.108	-0.084	-0.116
	(0.308)	(0.314)	(0.310)	(0.308)	(0.309)	(0.308)	(0.308)	(0.309)	(0.308)
Eastern Countries	-0.432*	-0.383*	-0.417*	-0.444**	-0.420*	-0.422*	-0.427*	-0.410*	-0.440**
	(0.223)	(0.227)	(0.224)	(0.223)	(0.223)	(0.223)	(0.223)	(0.223)	(0.223)
Interactions									
25-29 x Men		0.003							
		(0.178)							
30-34 x Men		-0.320							
		(0.225)							
34-30 x Men		-							
		(0.252)							
+40 x Men		-							
		(0.252)							
Low education x Men			-						
			(0.267)						
High education x Men			-0.205						

				(0.160)					
Couple x Men				0.143					
				(0.145)					
Employed x Men				-0.160					
				(0.191)					
Student x Men				0.402					
				(0.255)					
Negative Attitudes x					0.182				
					(0.119)				
Positive Attitudes x						0.154			
						(0.127)			
Subjective Norms x							-0.145*		
							(0.075)		
PBC x Men								0.085	
								(0.064)	
Observations	5,094	5,094	5,094	5,094	5,094	5,094	5,094	5,094	5,094

Source: GGS Wave 1 and Wave 2, authors' elaboration. Note: Standard errors in parentheses. Sign. Levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A.5: Result of a series of logistic regressions predicting the propensity of having intentions to be childless realised in the short-term among those who had intentions to be childless.

Variables	M0	M1	M2	M3	M4	M5	M6	M7	M8
Age of respondent (ref. 20-24)									
25-29	-0.232 (0.198)	-0.212 (0.285)	-0.237 (0.199)	-0.226 (0.199)	-0.235 (0.199)	-0.234 (0.199)	-0.237 (0.199)	-0.226 (0.199)	-0.231 (0.199)
30-34	-0.386 (0.266)	-0.317 (0.400)	-0.403 (0.266)	-0.357 (0.266)	-0.386 (0.266)	-0.384 (0.266)	-0.392 (0.266)	-0.369 (0.266)	-0.376 (0.267)
34-39	-0.507* (0.278)	-0.081 (0.387)	-0.518* (0.278)	-0.454 (0.280)	-0.512* (0.278)	-0.508* (0.278)	-0.513* (0.278)	-0.512* (0.278)	-0.540* (0.278)
+40	-0.019 (0.280)	1.149** (0.460)	-0.010 (0.280)	-0.007 (0.279)	-0.018 (0.281)	-0.022 (0.280)	-0.021 (0.280)	-0.016 (0.279)	0.034 (0.281)
Sex of respondent (ref. Women)									
Men	0.303* (0.158)	0.664** (0.232)	0.454** (0.192)	0.524 (0.446)	0.026 (0.360)	0.046 (0.775)	0.665 (0.749)	0.726* (0.397)	1.088** (0.333)
Highest level of education (ref. Intermediate)									
Low education	- (0.231)	- (0.233)	-0.504 (0.372)	- (0.232)	- (0.231)	- (0.231)	- (0.231)	- (0.231)	- (0.232)
High education	0.131 (0.187)	0.140 (0.190)	0.433 (0.267)	0.122 (0.188)	0.137 (0.188)	0.131 (0.187)	0.130 (0.187)	0.120 (0.188)	0.132 (0.187)
Stability of partnership (ref. Serial single)									
New partner	- (0.253)	- (0.255)	- (0.253)	- (0.368)	- (0.253)	- (0.253)	- (0.253)	- (0.253)	- (0.254)
Dissolution	-0.676 (0.512)	-0.763 (0.514)	-0.640 (0.513)	- (0.618)	-0.680 (0.512)	-0.676 (0.512)	-0.672 (0.512)	-0.676 (0.512)	-0.676 (0.512)
Stable partner	- (0.270)	- (0.272)	- (0.270)	- (0.384)	- (0.270)	- (0.270)	- (0.270)	- (0.270)	- (0.271)
Stability of activity (ref. Not working or job loss)									
Entry in LM	-0.156 (0.240)	-0.133 (0.241)	-0.164 (0.240)	-0.151 (0.241)	-0.400 (0.356)	-0.153 (0.240)	-0.154 (0.240)	-0.149 (0.240)	-0.174 (0.241)
Stable Job	-0.387* (0.209)	-0.413* (0.211)	-0.404* (0.210)	-0.381* (0.210)	-0.549* (0.310)	-0.388* (0.209)	-0.385* (0.209)	-0.398* (0.210)	- (0.210)
Home Ownership (ref. No)									
Yes	0.132 (0.174)	0.104 (0.176)	0.124 (0.175)	0.133 (0.175)	0.132 (0.175)	0.132 (0.174)	0.132 (0.174)	0.131 (0.175)	0.128 (0.175)
TPB Factors									
Negative Attitudes	0.389** (0.123)	0.431** (0.126)	0.395** (0.123)	0.388** (0.124)	0.392** (0.124)	0.347** (0.174)	0.386** (0.123)	0.391** (0.123)	0.365** (0.123)
Positive Attitudes	0.044 (0.128)	0.031 (0.129)	0.037 (0.129)	0.057 (0.129)	0.040 (0.128)	0.046 (0.129)	0.113 (0.190)	0.041 (0.129)	0.051 (0.129)
Subjective Norms	-0.160* (0.075)	-0.165* (0.075)	-0.165* (0.075)	- (0.075)	-0.160* (0.075)	-0.160* (0.075)	-0.159* (0.075)	-0.060 (0.075)	-0.164* (0.075)

1										
2										
3			(0.085)	(0.085)	(0.085)	(0.086)	(0.086)	(0.085)	(0.085)	(0.121)
4		PBC	0.082	0.078	0.081	0.076	0.084	0.083	0.084	0.078
5			(0.070)	(0.070)	(0.070)	(0.070)	(0.070)	(0.070)	(0.070)	(0.102)
6	Country (ref. Italy)									
7	Austria		0.392	0.614	0.361	0.450	0.418	0.401	0.403	0.429
8			(0.463)	(0.475)	(0.466)	(0.464)	(0.465)	(0.463)	(0.464)	(0.464)
9	France		0.089	0.331	0.035	0.129	0.116	0.093	0.094	0.150
10			(0.523)	(0.537)	(0.526)	(0.524)	(0.525)	(0.523)	(0.524)	(0.526)
11	Germany		0.637	0.890	0.594	0.679	0.670	0.645	0.635	0.681
12			(0.612)	(0.628)	(0.615)	(0.613)	(0.614)	(0.612)	(0.612)	(0.614)
13	Eastern Countries		-0.824*	-0.611	-0.852*	-0.754	-0.797*	-0.818*	-0.823*	-0.786*
14			(0.458)	(0.470)	(0.461)	(0.459)	(0.459)	(0.458)	(0.458)	(0.459)
15	Interactions									
16	25-29 x Men		-0.062							
17			(0.380)							
18	30-34 x Men		-0.143							
19			(0.509)							
20	34-30 x Men		-0.794							
21			(0.525)							
22	+40 x Men		-							
23			(0.537)							
24	Low education x Men			-0.077						
25				(0.469)						
26	High education x Men			-0.601*						
27				(0.362)						
28	New partner x Men			-0.082						
29				(0.498)						
30	Dissolution x Men			1.531						
31				(1.219)						
32	Stable partner x Men			-0.524						
33				(0.502)						
34	Entry LM x Men				0.452					
35					(0.483)					
36	Stable employment x				0.297					
37					(0.404)					
38	Negative Attitudes x					0.083				
39						(0.244)				
40	Positive Attitudes x						-0.123			
41							(0.249)			
42	Subjective Norms x							-0.184		
43								(0.158)		
44	PBC x Men								-	
45										(0.135)
46	Observations		2,533	2,533	2,533	2,533	2,533	2,533	2,533	2,533

Source: GGS Wave1 and Wave2, authors' elaboration. Note: Standard errors in parentheses. Sign. Levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Table A.6: Result of a series of multinomial logistic regressions predicting patterns of childlessness (comparison group is involuntary childless).

<i>A. Voluntary Childless</i>								
Variables	M0	M1	M2	M3	M4	M5	M6	M7
Age of respondent (ref. 20-24)								
25-29	-1.044*** (0.206)	-1.060*** (0.131)	-1.047*** (0.131)	-1.056*** (0.131)	-1.051*** (0.131)	-1.053*** (0.131)	-1.047*** (0.131)	-1.058*** (0.131)
30-34	-0.109 (0.256)	-0.655*** (0.165)	-0.639*** (0.165)	-0.650*** (0.165)	-0.641*** (0.165)	-0.649*** (0.165)	-0.637*** (0.166)	-0.647*** (0.165)
34-39	0.723*** (0.255)	-0.154 (0.177)	-0.146 (0.177)	-0.164 (0.177)	-0.155 (0.177)	-0.152 (0.177)	-0.146 (0.178)	-0.151 (0.177)
+40	2.852*** (0.286)	1.462*** (0.181)	1.471*** (0.181)	1.448*** (0.181)	1.457*** (0.181)	1.459*** (0.181)	1.473*** (0.181)	1.450*** (0.181)
Sex of respondent (ref. Women)								
Men	0.990*** (0.162)	0.591*** (0.128)	0.297** (0.150)	0.352* (0.208)	-1.143** (0.515)	0.075 (0.538)	0.860*** (0.288)	0.167 (0.212)
Highest level of education (ref. Intermediate)								
Low education	-0.206 (0.177)	0.544 (0.332)	-0.212 (0.176)	-0.222 (0.176)	-0.206 (0.176)	-0.209 (0.175)	-0.212 (0.176)	-0.217 (0.175)
High education	-0.532*** (0.117)	-0.327** (0.163)	-0.479*** (0.116)	-0.489*** (0.116)	-0.470*** (0.115)	-0.478*** (0.115)	-0.486*** (0.116)	-0.478*** (0.115)
Stability of partnership (ref. Serial single)								
New partner	-0.989*** (0.159)	-0.959*** (0.158)	-1.251*** (0.248)	-0.956*** (0.158)	-0.978*** (0.158)	-0.966*** (0.158)	-0.964*** (0.158)	-0.964*** (0.158)
Dissolution	-0.474** (0.189)	-0.448** (0.188)	-0.665** (0.296)	-0.446** (0.188)	-0.457** (0.188)	-0.445** (0.188)	-0.442** (0.188)	-0.447** (0.188)
Stable partner	-1.466*** (0.142)	-1.428*** (0.141)	-1.514*** (0.191)	-1.428*** (0.141)	-1.435*** (0.140)	-1.433*** (0.140)	-1.439*** (0.141)	-1.425*** (0.141)
Stability of activity (ref. Not working or job loss)								
Entry in LM	-0.219 (0.152)	-0.232 (0.151)	-0.228 (0.151)	-0.561** (0.232)	-0.228 (0.151)	-0.230 (0.151)	-0.233 (0.151)	-0.224 (0.151)
Stable Job	-0.679*** (0.130)	-0.647*** (0.129)	-0.640*** (0.129)	-0.611*** (0.190)	-0.644*** (0.129)	-0.638*** (0.129)	-0.648*** (0.129)	-0.631*** (0.129)
Home Ownership (ref. No)								
Yes	0.055 (0.119)	0.047 (0.118)	0.043 (0.118)	0.052 (0.118)	0.048 (0.118)	0.050 (0.118)	0.046 (0.118)	0.051 (0.118)
TPB factors								
Negative Attitudes	1.456*** (0.088)	1.414*** (0.086)	1.410*** (0.086)	1.418*** (0.086)	1.146*** (0.119)	1.411*** (0.086)	1.408*** (0.086)	1.418*** (0.086)
Positive Attitudes	-1.403*** (0.092)	-1.397*** (0.092)	-1.397*** (0.092)	-1.395*** (0.092)	-1.404*** (0.092)	-1.455*** (0.133)	-1.398*** (0.092)	-1.397*** (0.092)
Subjective Norms	-1.162*** (0.059)	-1.156*** (0.059)	-1.154*** (0.059)	-1.156*** (0.059)	-1.151*** (0.059)	-1.152*** (0.059)	-1.050*** (0.082)	-1.153*** (0.059)
PBC	0.164*** (0.045)	0.161*** (0.045)	0.161*** (0.045)	0.159*** (0.045)	0.168*** (0.045)	0.158*** (0.045)	0.159*** (0.045)	0.090 (0.067)
Country (ref. Italy)								
Austria	-0.401 (0.326)	-0.536* (0.317)	-0.551* (0.315)	-0.560* (0.315)	-0.504 (0.314)	-0.558* (0.315)	-0.526* (0.315)	-0.555* (0.314)
France	-0.590 (0.367)	-0.762** (0.358)	-0.781** (0.357)	-0.766** (0.356)	-0.757** (0.356)	-0.774** (0.357)	-0.727** (0.357)	-0.791** (0.356)
Germany	-0.309 (0.443)	-0.448 (0.434)	-0.483 (0.432)	-0.479 (0.432)	-0.430 (0.430)	-0.461 (0.432)	-0.427 (0.433)	-0.469 (0.431)
Eastern Countries	-1.362*** (0.331)	-1.444*** (0.322)	-1.467*** (0.320)	-1.470*** (0.320)	-1.426*** (0.319)	-1.462*** (0.320)	-1.433*** (0.320)	-1.473*** (0.319)
Interaction								
25-29 x Men	-0.032 (0.260)							
30-34 x Men	-0.870*** (0.320)							
34-30 x Men	-1.518***							

1									
2									
3		(0.337)							
4	+40 x Men	-2.394***							
5		(0.348)							
6	Low education x Men	-1.067***							
7		(0.388)							
8	High education x Men	-0.267							
9		(0.223)							
10	New partner x Men	0.465							
11		(0.310)							
12	Dissolution x Men	0.352							
13		(0.373)							
14	Stable partner x Men	0.131							
15		(0.225)							
16	Entry LM x Men	0.559*							
17		(0.304)							
18	Stable employment x Men	-0.046							
19		(0.243)							
20	Negative Attitudes x Men	0.507***							
21		(0.164)							
22	Positive Attitudes x Men	0.107							
23		(0.170)							
24	Subjective Norms x Men	-0.181*							
25		(0.104)							
26	PBC x Men	0.122							
27		(0.088)							
28	Observations	4,125	4,125	4,125	4,125	4,125	4,125	4,125	4,125
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									

<i>B. Postponers</i>									
Variables	M0	M1	M2	M3	M4	M5	M6	M7	
Age of respondent (ref. 20-24)									
25-29	-0.528***	-0.568***	-0.559***	-0.563***	-0.565***	-0.562***	-0.564***	-0.566***	
	(0.175)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	
30-34	-0.619**	-0.762***	-0.753***	-0.758***	-0.760***	-0.758***	-0.756***	-0.756***	
	(0.253)	(0.161)	(0.161)	(0.161)	(0.161)	(0.161)	(0.161)	(0.161)	
34-39	-0.506*	-0.802***	-0.798***	-0.811***	-0.800***	-0.800***	-0.795***	-0.801***	
	(0.289)	(0.194)	(0.194)	(0.194)	(0.194)	(0.194)	(0.194)	(0.194)	
+40	0.005	-0.724***	-0.719***	-0.739***	-0.729***	-0.729***	-0.725***	-0.730***	
	(0.396)	(0.250)	(0.250)	(0.250)	(0.250)	(0.250)	(0.250)	(0.250)	
Sex of respondent (ref. Women)									
Men	0.465***	0.312**	0.162	0.198	0.063	-0.514	0.193	0.044	
	(0.156)	(0.129)	(0.151)	(0.211)	(0.496)	(0.534)	(0.289)	(0.215)	
Highest level of education (ref. Intermediate)									
Low education	-0.041	0.434	-0.038	-0.055	-0.038	-0.043	-0.043	-0.048	
	(0.177)	(0.346)	(0.177)	(0.177)	(0.177)	(0.176)	(0.176)	(0.177)	
High education	-0.180	-0.032	-0.169	-0.184*	-0.166	-0.171	-0.166	-0.168	
	(0.111)	(0.156)	(0.110)	(0.111)	(0.110)	(0.110)	(0.110)	(0.110)	
Stability of partnership (ref. Serial single)									
New partner	0.039	0.052	0.032	0.061	0.049	0.051	0.050	0.051	
	(0.140)	(0.139)	(0.213)	(0.139)	(0.139)	(0.139)	(0.139)	(0.139)	
Dissolution	-0.986***	-0.957***	-1.319***	-0.960***	-0.968***	-0.958***	-0.960***	-0.957***	
	(0.216)	(0.215)	(0.358)	(0.215)	(0.215)	(0.215)	(0.215)	(0.215)	
Stable partner	-0.733***	-0.709***	-0.700***	-0.707***	-0.717***	-0.719***	-0.715***	-0.708***	
	(0.136)	(0.136)	(0.187)	(0.136)	(0.136)	(0.136)	(0.136)	(0.136)	
Stability of activity (ref. Not working or job loss)									
Entry in LM	0.120	0.115	0.113	-0.093	0.117	0.116	0.117	0.120	
	(0.148)	(0.148)	(0.148)	(0.224)	(0.148)	(0.148)	(0.148)	(0.148)	
Stable Job	-0.293**	-0.288**	-0.278**	-0.191	-0.279**	-0.279**	-0.279**	-0.274**	
	(0.129)	(0.129)	(0.129)	(0.191)	(0.129)	(0.129)	(0.129)	(0.129)	
Home Ownership (ref. No)									
Yes	0.076	0.069	0.074	0.074	0.069	0.072	0.068	0.070	

		(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)	(0.119)
TPB factors									
Negative Attitudes	1.041***	1.020***	1.018***	1.022***	0.996***	1.017***	1.020***	1.021***	
	(0.083)	(0.082)	(0.082)	(0.082)	(0.117)	(0.082)	(0.082)	(0.082)	
Positive Attitudes	-1.059***	-1.061***	-1.059***	-1.057***	-1.062***	-1.180***	-1.058***	-1.059***	
	(0.090)	(0.089)	(0.089)	(0.089)	(0.089)	(0.129)	(0.089)	(0.089)	
Subjective Norms	-0.854***	-0.856***	-0.856***	-0.857***	-0.855***	-0.853***	-0.859***	-0.853***	
	(0.057)	(0.057)	(0.057)	(0.057)	(0.057)	(0.057)	(0.081)	(0.057)	
PBC	0.173***	0.171***	0.169***	0.167***	0.172***	0.168***	0.170***	0.132**	
	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.065)	
Country (ref. Italy)									
Austria	0.488	0.445	0.447	0.431	0.440	0.431	0.436	0.442	
	(0.505)	(0.505)	(0.505)	(0.504)	(0.505)	(0.505)	(0.504)	(0.504)	
France	0.630	0.576	0.588	0.588	0.582	0.582	0.568	0.574	
	(0.531)	(0.530)	(0.530)	(0.530)	(0.530)	(0.530)	(0.530)	(0.530)	
Germany	0.717	0.682	0.686	0.664	0.674	0.684	0.672	0.680	
	(0.588)	(0.588)	(0.587)	(0.587)	(0.587)	(0.587)	(0.587)	(0.587)	
Eastern Countries	0.387	0.371	0.373	0.364	0.371	0.370	0.361	0.366	
	(0.505)	(0.504)	(0.505)	(0.504)	(0.504)	(0.504)	(0.504)	(0.504)	
Interaction									
25-29 x Men	-0.084								
	(0.229)								
30-34 x Men	-0.247								
	(0.314)								
34-30 x Men	-0.529								
	(0.375)								
+40 x Men	-1.215**								
	(0.497)								
Low education x Men		-0.661*							
		(0.400)							
High education x Men		-0.250							
		(0.213)							
New partner x Men			0.028						
			(0.274)						
Dissolution x Men			0.579						
			(0.440)						
Stable partner x Men			-0.034						
			(0.225)						
Entry LM x Men				0.362					
				(0.296)					
Stable employment x Men				-0.154					
				(0.245)					
Negative Attitudes x Men					0.055				
					(0.158)				
Positive Attitudes x Men						0.221			
						(0.167)			
Subjective Norms x Men							0.011		
							(0.104)		
PBC x Men								0.067	
								(0.087)	
Observations	4,125	4,125	4,125	4,125	4,125	4,125	4,125	4,125	4,125
<i>C. Abandoners</i>									
Variables	M0	M1	M2	M3	M4	M5	M6	M7	
Age of respondent (ref. 20-24)									
25-29	-0.220	-0.248*	-0.234	-0.238	-0.241	-0.243	-0.240	-0.246	
	(0.232)	(0.150)	(0.150)	(0.150)	(0.150)	(0.150)	(0.150)	(0.150)	
30-34	0.415	-0.024	-0.008	-0.012	-0.014	-0.020	-0.014	-0.017	
	(0.262)	(0.174)	(0.174)	(0.174)	(0.174)	(0.173)	(0.173)	(0.173)	
34-39	0.469*	0.159	0.167	0.171	0.160	0.161	0.166	0.161	

1								
2								
3		(0.282)	(0.190)	(0.190)	(0.190)	(0.190)	(0.190)	(0.190)
4	+40	1.957***	1.113***	1.129***	1.122***	1.112***	1.111***	1.117***
5		(0.305)	(0.197)	(0.197)	(0.197)	(0.197)	(0.197)	(0.197)
6	Sex of respondent (ref. Women)							
7	Men	0.386*	0.195	-0.111	0.125	-1.038**	-0.387	0.159
8		(0.207)	(0.150)	(0.154)	(0.232)	(0.478)	(0.612)	(0.394)
9	Highest level of education (ref. Intermediate)							
10	Low education	0.259	0.666*	0.262	0.263	0.269	0.264	0.260
11		(0.186)	(0.346)	(0.186)	(0.185)	(0.186)	(0.185)	(0.185)
12	High education	-0.218*	-0.042	-0.200	-0.191	-0.191	-0.197	-0.197
13		(0.124)	(0.177)	(0.123)	(0.123)	(0.123)	(0.123)	(0.123)
14	Stability of partnership (ref. Serial single)							
15	New partner	-1.040***	-1.025***	-1.462***	-1.028***	-1.033***	-1.026***	-1.026***
16		(0.203)	(0.203)	(0.348)	(0.203)	(0.203)	(0.203)	(0.203)
17	Dissolution	-0.145	-0.126	-0.459	-0.125	-0.140	-0.128	-0.126
18		(0.207)	(0.207)	(0.334)	(0.207)	(0.207)	(0.206)	(0.206)
19	Stable partner	-0.913***	-0.890***	-1.031***	-0.896***	-0.899***	-0.900***	-0.897***
20		(0.155)	(0.155)	(0.212)	(0.154)	(0.155)	(0.155)	(0.155)
21	Stability of activity (ref. Not working or job loss)							
22	Entry in LM	-0.133	-0.134	-0.126	0.057	-0.129	-0.131	-0.131
23		(0.176)	(0.176)	(0.176)	(0.265)	(0.176)	(0.176)	(0.176)
24	Stable Job	-0.257*	-0.243*	-0.235*	-0.218	-0.237*	-0.233*	-0.236*
25		(0.141)	(0.141)	(0.141)	(0.214)	(0.141)	(0.141)	(0.141)
26	Home Ownership (ref. No)							
27	Yes	-0.067	-0.072	-0.079	-0.073	-0.075	-0.074	-0.077
28		(0.138)	(0.138)	(0.138)	(0.138)	(0.138)	(0.138)	(0.138)
29	TPB factors							
30	Negative Attitudes	0.146*	0.126	0.125	0.123	-0.071	0.124	0.125
31		(0.084)	(0.083)	(0.083)	(0.083)	(0.118)	(0.083)	(0.083)
32	Positive Attitudes	-0.272***	-0.269***	-0.269***	-0.266***	-0.279***	-0.339**	-0.266***
33		(0.098)	(0.098)	(0.098)	(0.098)	(0.098)	(0.142)	(0.098)
34	Subjective Norms	-0.027	-0.027	-0.025	-0.024	-0.022	-0.024	-0.004
35		(0.068)	(0.068)	(0.068)	(0.068)	(0.068)	(0.068)	(0.098)
36	PBC	0.073	0.071	0.073	0.069	0.079	0.068	0.070
37		(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.074)
38	Country (ref. Italy)							
39	Austria	0.211	0.145	0.146	0.142	0.178	0.138	0.147
40		(0.342)	(0.340)	(0.340)	(0.339)	(0.340)	(0.340)	(0.339)
41	France	-0.302	-0.368	-0.346	-0.353	-0.333	-0.348	-0.350
42		(0.410)	(0.407)	(0.407)	(0.407)	(0.407)	(0.407)	(0.407)
43	Germany	0.056	-0.024	-0.061	-0.038	-0.020	-0.024	-0.019
44		(0.537)	(0.535)	(0.535)	(0.533)	(0.534)	(0.534)	(0.535)
45	Eastern Countries	-0.118	-0.163	-0.169	-0.157	-0.128	-0.157	-0.154
46		(0.339)	(0.337)	(0.338)	(0.336)	(0.337)	(0.337)	(0.337)
47	Interaction							
48	25-29 x Men	-0.061						
49		(0.294)						
50	30-34 x Men	-0.723**						
51		(0.331)						
52	34-30 x Men	-0.531						
53		(0.361)						
54	+40 x Men	-1.441***						
55		(0.380)						
56	Low education x Men		-0.572					
57			(0.407)					
58	High education x Men		-0.281					
59			(0.240)					
60	New partner x Men			0.691				
				(0.423)				
	Dissolution x Men			0.535				

				(0.415)					
	Stable partner x Men			0.219					
				(0.253)					
	Entry LM x Men			-0.319					
				(0.352)					
	Stable employment x Men			-0.027					
				(0.269)					
	Negative Attitudes x Men				0.378**				
					(0.161)				
	Positive Attitudes x Men					0.136			
						(0.186)			
	Subjective Norms x Men						-0.037		
							(0.126)		
	PBC x Men							0.094	
								(0.096)	
	Observations	4,125	4,125	4,125	4,125	4,125	4,125	4,125	4,125

Source: GGS Wave1 and Wave2, authors' elaboration. Note: Standard errors in parentheses. Sign. Levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1