Dipartimento di Statistica
"Giuseppe Parenti"

WORKING PAPER 2010/07

Fertility dynamics in France and Italy. Who are the couples that do not give birth to the intended child?

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Abstract

France and Italy lie at the two extremes as regards fertility levels in Europe. Although previous findings showed that desired fertility is very similar in France and Italy, an examination of intentions to have a child in the following three years points to a country-specific difference. Namely, in France reproductive intentions are higher than in Italy for all parities. Moreover, since the actual fertility levels are so different, there could be some sorts of constraints that limit fertility more strongly in Italy than in France. Taking advantage of the first two rounds of the French and Italian Gender and Generation Surveys, in this paper we aim at highlighting the profiles of those couples who do not realize their intended fertility projects in the two countries considered. This line of reasoning may provide important input to policy makers wishing to lift the constraints to fertility realization.

Keywords: Fertility intentions, fertility realization, France, Italy

Objective

France and Italy lie at the two extremes as regards fertility levels in Europe. On the one hand, Italy is now one of the industrialized countries with the lowest average number of children per woman in the world (today 1.4), while its neighbor, France, announced a figure of 828,000 births in 2008, and holds the European record for persistent and high fertility, close to the famous replacement fertility level (INSEE, 2009; ISTAT, 2009).

This paper is an extension of a previous study where we demonstrated that the vast majority of women still desire two children in both countries – even if in France the wish to have a larger

family appears to be relatively more frequent than in Italy (Vignoli and Régnier-Loilier, 2009). Moreover, the profiles of women who do not desire the standard two-child family are also very similar in France and Italy: women wishing to have a lone child or to have a larger family display very similar demographic and socioeconomic characteristics in both countries (Régnier-Loilier and Vignoli, 2008). In short, France and Italy do not show strong differences regarding the desired fertility pattern. However, since the actual fertility levels are so different, there could be some constraints that limit fertility more strongly in Italy than in France. In this paper we aim to identify the profiles of those couples who do not realize their intended fertility projects in France and Italy.

Who are the couples that, after three years, still have not achieved their intended fertility? Do they present different characteristics in France and Italy? The answers to these questions may provide important input to policy makers wishing to lift the constraints to fertility realization.

Background

Applying Ajzen's famous "Theory of Planned Behaviors" (1991) to family and fertility research, it may be argued that *observed* reproductive behaviors do not depend solely on individual characteristics, but they also derive from fertility *intentions* (e.g., Ongaro, 1982; Palomba, 1991; De Sandre *et al*., 1997; Sorvillo and Marsili, 1999; Goldstein *et al*., 2004; Testa and Grilli, 2006; Mills *et al*., 2008). Fertility intentions can be *positive* or *negative*: the former define the desire to have a(nother) child, while the latter the desire to not have a(nother) child. The literature on the correspondence between fertility intentions and subsequent outcomes is not very abundant, especially due the severe shortage of appropriate longitudinal data. However, to the best of our knowledge, documented findings all point to a general statement: negative fertility intentions are a effective predictor of subsequent fertility behavior, while positive fertility intentions tend to systematically overestimate fertility realizations (Westoff and Ryder, 1977; Monnier, 1989; Schoen *et al*., 1999; Symeonidou, 2000; Noack and Østby, 2002; Toulemon and Testa, 2005; Testa and Toulemon, 2006; Meggiolaro, 2009; Rinesi, 2009).

Many factors have been found in the literature to increase (or decrease) the gap between positive fertility intentions and their subsequent realization (or, conversely, non-realization). A pivotal role is played by demographic factors: in particular women's age and parity are crucial (e.g., Noack and Østby, 2002; Quesnel-Vallée and Morgan, 2003; Testa and Toulemon, 2006; Rinesi, 2009). Moreover, the larger the distance between actual and expected number of children, the faster the transition towards childbearing in a short period (Thompson et al, 1990; Symeonidou, 2000). The type of union, too, is important, even if its effect is not the same everywhere: for instance, married

couples are more likely to realize their intention of having (another) child in the United States (Schoen et al, 1999; Quesnel-Vallée and Morgan, 2003), while in France the type of union does not show any significant influence on subsequent fertility behaviors (Toulemon and Testa, 2005). The effect of gender roles also seems to vary in different contexts (see, for example, Thomson, 1997 for Sweden, and Symeonidou, 2000 for Greece). Moving to socioeconomic factors, the impact of education, *ceteris paribus*, is similar in France and Italy: the gap is the lowest for highly educated women (Toulemon and Testa, 2005; Rinesi, 2009). The opposite effect of education (i.e. higher likelihood of realizing the intended fertility observed among the least educated women) is found for the United States (Quesnel-Vallée and Morgan, 2003). Among the pure economic factors, Rinesi (2009) shows for Italy that individuals in a more stable situation (i.e. those who work and are home-owners) are more likely to realize the desired parity. Also as regards France, economic uncertainty appears to play a pivotal role: in the paper by Testa and Toulemon (2006), being unemployed significantly widens the gap between fertility intentions and realizations.

Data

The study is based on the Generation and Gender Surveys and their corresponding follow-up surveys for France (2005, round 1 – 2008, round 2) and Italy (2003, round 1 – 2007, round 2). The French surveys, called "Étude des relations familiales et intergénérationnelle" (GGS-ERFI), were conducted jointly by INED (Institut national d'études démographiques) and INSEE (Institut national de la statistique et des études économiques) in 2005. The Italian variant of the GGS is a retrospective survey conducted in Italy by the Italian National Statistical Office (ISTAT) called "Family and Social Subjects" (GGS-FSS) in 2003. Its follow-up survey was conducted jointly by ISTAT and the Ministry of Labor in 2006/2007. The harmonized questions on fertility intentions and realization used in the Gender and Generation Program ensure a meaningful comparison between the two countries.

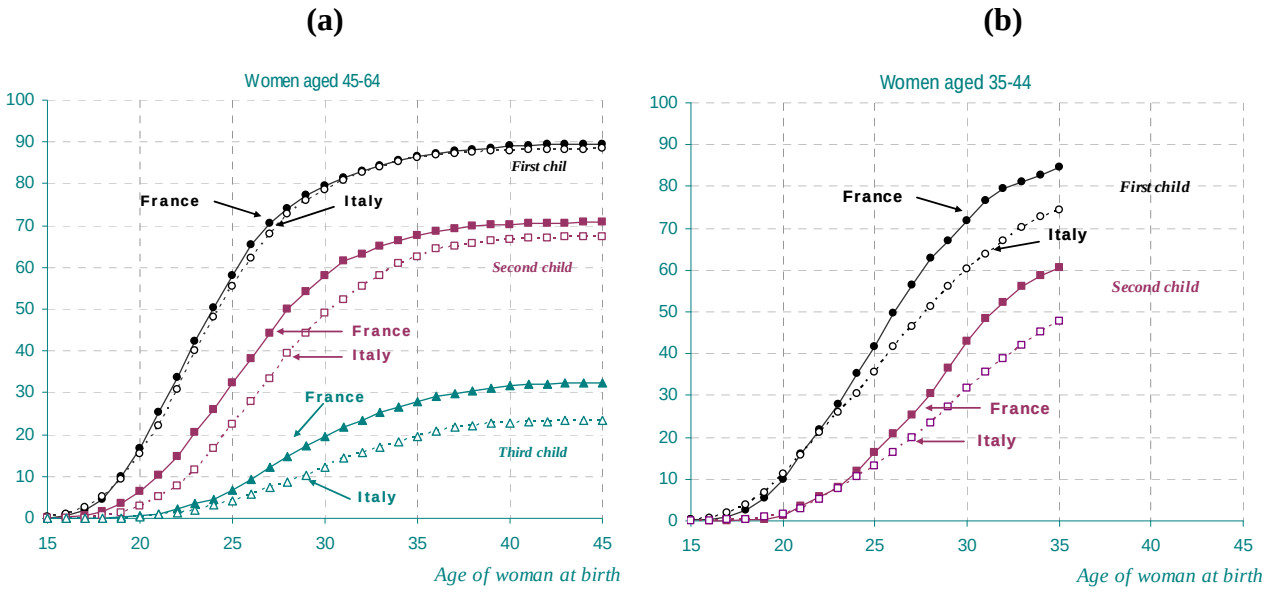
Observed and intended fertility in France and Italy

Focusing on women aged 45-64 at the time of the GGS (round 1) interview, we did not observe any remarkable differences between France and Italy for the timing of the first childbirth (**Figure 1a**). In particular, among this group, 58% of French women and 55% of Italian women had already given birth to the first child by age 25. At the end of their reproductive life, these percentages had risen to 90% and 88%, respectively. For these cohorts, we observe some differences as regards the timing of the second child. That event is relatively postponed in Italy – Italian women aged 30 have

had a second child in 49% of cases, against 58% of their French counterparts – and, at the end of their reproductive life, fewer Italian women have given birth to a second child – 67% in Italy against 71% in France. These differences are even larger for the timing of the third child.

For the younger cohorts (women aged 35-44 at the time of the interview) we observe that both the first and the second child are postponed with respect the oldest cohorts (**Figure 1b**). This is true especially in Italy, where 35% of women in this age group have already given birth to the first child at age 25 versus 42% in France (the difference between the two countries rose from 3 percentage points for the oldest cohorts to 7 points for the younger cohorts). These differences do not seem to be due solely to fertility postponement, because at age 35 the divergence still persists. Namely, 84% of French women had had a first child and 61% a second child, while in Italy these percentage were just 74% and 47%, respectively. Finally, among the youngest cohorts (aged 25-34 at the time of the interview), the difference in the timing of the first child is even more pronounced between the two countries, with a trend towards a much longer first child postponement in Italy (figure not shown).

Figure 1. Cumulative percentage of women having a first (second or third, resp.) child, by age at childbearing in France and Italy.

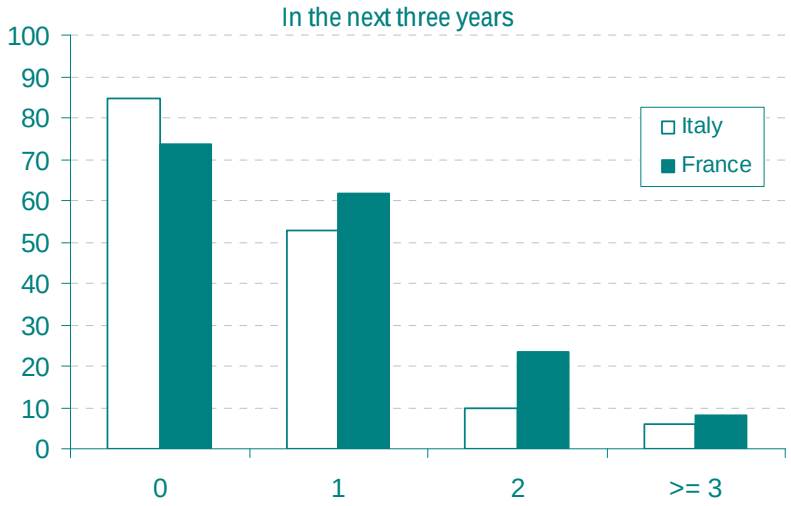


Source: Own calculations based on GGS-ERFI (2005) and FSS-GGS(2003).

Some insight can also be gained as regards fertility intentions in the following three years (**Figure 2**). Among childless women aged 20-40, the intention to give birth to the first child appears less pronounced in France than in Italy (74% against 85%). On the contrary, among women who already have children, the intention to have a second or a third child is higher in France than in Italy.

Overall, although previous findings showed that desired fertility is very similar in France and Italy (Régnier-Loilier and Vignoli, 2008; Vignoli and Régnier-Loilier, 2009), the intentions to have a child in the following three years point to a country-specific difference: in France reproductive intentions are higher than in Italy for all parities. This may be due to the fact that fertility intentions in France are more closely linked to the individual socioeconomic situation as well as to the institutional context.

Figure 2. Intention to have (another) child in the next three years by parity in France and Italy



Source: Own calculations based on GGS-ERFI (2005) and FSS-GGS(2003).

Some years later: realizations versus intentions

Here we present a first look at the findings of the French and Italian GGS follow-up surveys. The analysis is still in its early stages, since the Italian dataset became available just two weeks ago. We first illustrate some descriptive findings and then we estimate a logistic regression model predicting the probability of not realizing the positive fertility intentions expressed three years before. In particular, we aim to identify, in a comparative perspective, the main constraints to the realization of fertility projects. Are they mainly demographic factors? Are they economic factors? Are they factors related to the couple role-set?

Descriptive overview

In 2008 in France and 2007 in Italy, about three years after the first round of GGS, how many respondents have had a child, irrespective of the birth order? According to the second round of survey results, the proportions are about 19% in France and 15% in Italy. These results are

relatively consistent with the handful of other studies covering the two countries, based on different data, however (see Toulemon and Testa, 2005 for France; Rinesi, 2009 for Italy).

Figure 3 illustrates the link between intentions and realizations turns out to be particularly strong at the extremes: the stronger the intention to have – or not have – children, the greater – the lower – the observed proportion of respondents who realize this intention. In particular, we found that negative fertility intentions are a potent predictor of subsequent fertility behavior. In fact, the highest proportion of persons who actually realized their intentions is found among those who initially stated that they definitely did not intend to have any (or any more) children. On the contrary, positive fertility intentions tend to overestimate fertility realizations: 34% of respondents in France and 36% in Italy who firmly intended to have a child in the following three years did not achieve their goal.

An interesting country-specific difference does emerge. In France, the proportion of fertility realisations between the two survey waves is systematically higher than in Italy, regardless of the expressed fertility intentions. Note, in this respect, that among the 7% of people in France who reported that they were unlikely to have a child in the following three years, 22% violated this expectation. In Italy, even among those in the "probably not" category of fertility intentions (21%), only 9% violated this expectation. In France it seems that a more “flexible” attitude about the future is also operating among people who report that they (probably) do not intend to have children. In Italy, by contrast, people appear more realistic about their future (negative) fertility expectation.

Considering all combinations between fertility intentions and realizations – those who did not intend to have child and did not have a child; those who did not intend to have a child, but had a child; those who intended to have child, and had a child; those who intended to have a child, but did not have a child – gender does not matter much (Figure 4). Bearing in mind that differentials by gender are minor, we proceed with our analysis considering both sexes combined.

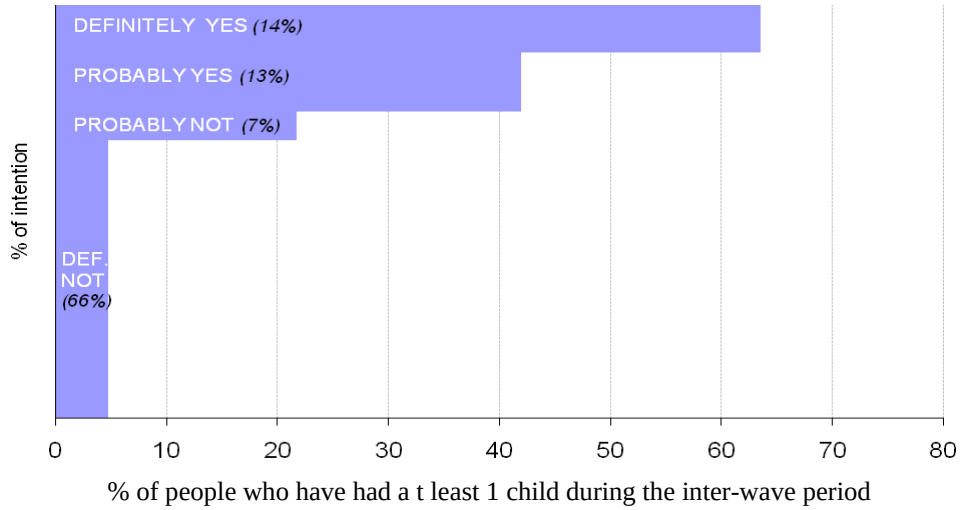
In contrast with gender, the general French and Italian patterns vary remarkably by age and partnership status. Figure 5 illustrates the proportion of unrealized positive fertility intentions in the two study countries, according to age and partnership status. The trend by age is fairly similar, illustrating an expected U-shaped curve. Before age 25, young people are characterized by less firm intentions (the proportions of “probably yes” and “probably no” are higher); in addition, they have probably not yet achieved the conditions that are perceived as important for childbearing, such as a stable job or a stable partner (e.g., Hobcraft and Kiernan, 1995). Next, the period between ages 25 and 34 is when the majority of people have a(nother) child. Afterwards, beyond age 35, biological aging may lead to difficulties in conceiving a child.

Regarding partnership status, almost half (50%) of married couples do not realize their expected fertility projects in Italy, while in France the percentage is about 40%. Cohabiting partners display a systematically higher proportion of non-realization for all age groups. This is particularly true for Italy, where the majority of cohabiting couples (about 60%) who intended to have a child in the following three years did not achieve their wish. By contrast, the distinction between "married" and "cohabiting" has little effect on having a child in France, whatever the age. This is probably due to the fact that in the latter country the status of "cohabiting" is much more common, socially accepted alternative to marriage, and has greater legal recognition than in Italy.

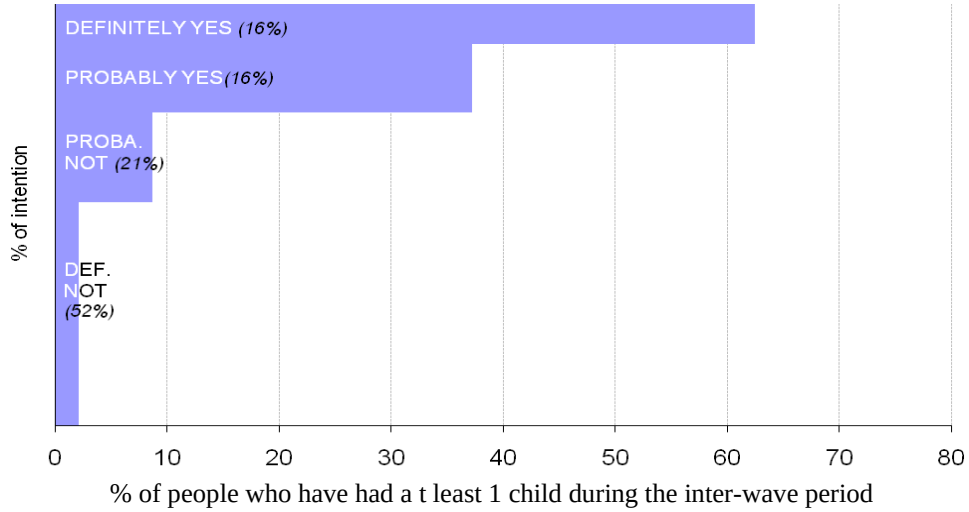
Obviously, then, the proportion of unrealized positive fertility intentions is higher in Italy irrespective of the number of children ever born observed in the GGS round 1 (Figure 6).

Figure 3. Intended and realized fertility in France and Italy: proportion of men or women who had at least one child, according to initial intentions.

(a) France

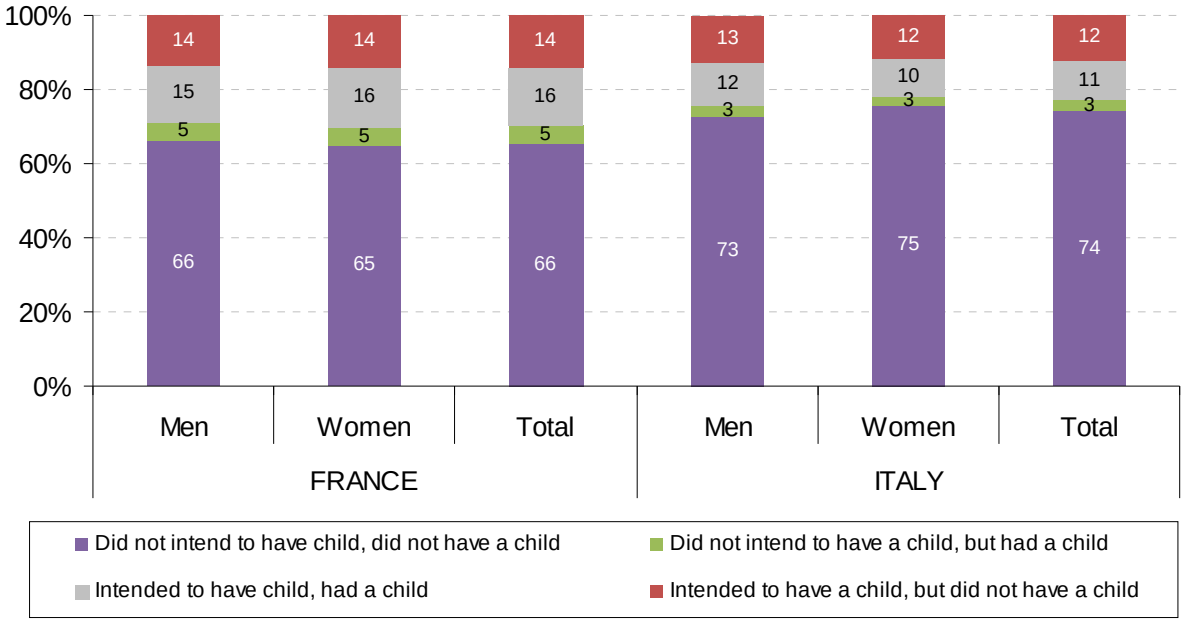


(b) Italy



Source: Own calculations based on GGS-ERFI (round 1, 2005 – round 2, 2008) and FSS-GGS (round 1, 2003- round 2, 2007).

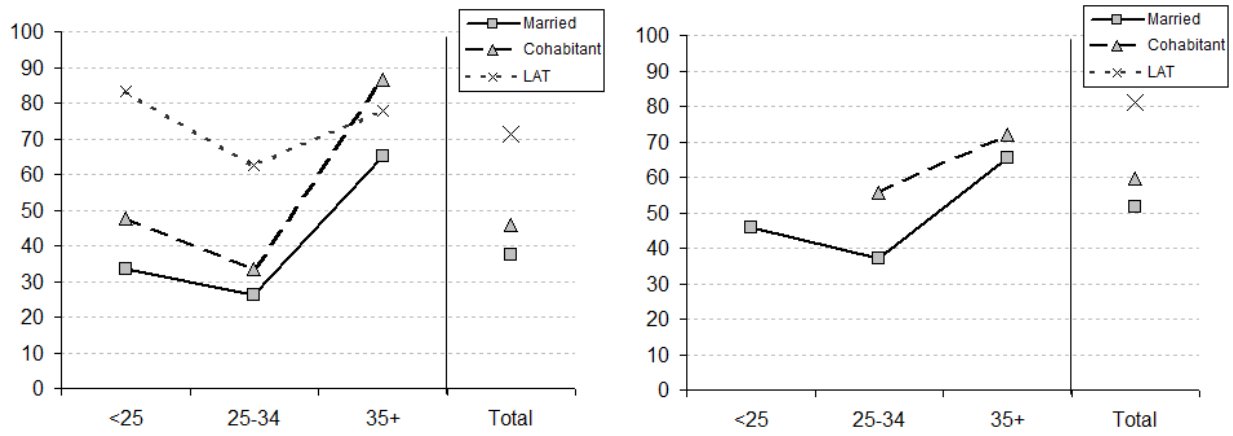
Figure 4. Intended and realized fertility in France and Italy by gender.



Source: Own calculations based on GGS-ERFI (round 1, 2005 – round 2, 2008) and FSS-GGS (round 1, 2003- round 2, 2007).

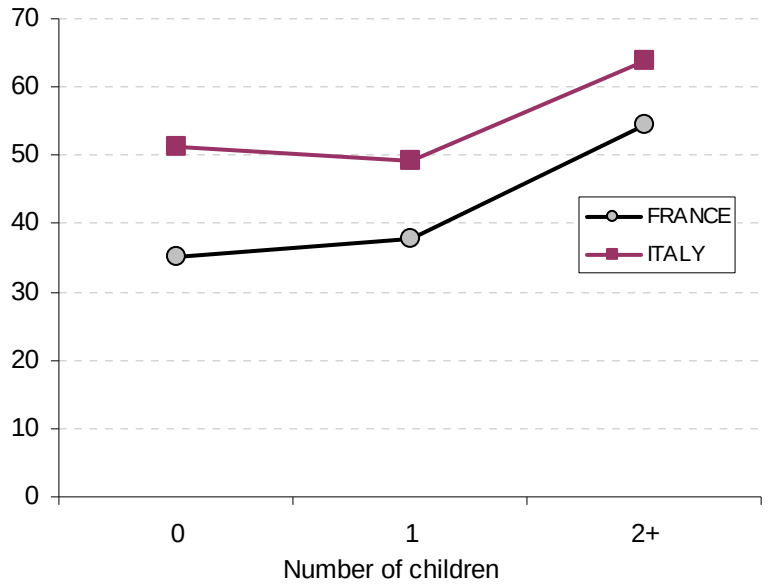
Figure 5. Proportion of unrealized positive fertility intentions in France (a) and Italy (b), by age and partnership status.

(a) France *(b) Italy*



Source: Own calculations based on GGS-ERFI (round 1, 2005 – round 2, 2008) and FSS-GGS (round 1, 2003- round 2, 2007).
Note: For Italy the patterns for LAT (living apart together) and cohabitation of people aged below 25 are omitted due to the small sample size.

Figure 6. Proportion of unrealized positive fertility intentions in France and Italy, by number of children observed in round 1.



Source: Own calculations based on GGS-ERFI (round 1, 2005 – round 2, 2008) and FSS-GGS (round 1, 2003- round 2, 2007). For Italy the figure displays the pattern for women only. At this stage, men's fertility information is not available.

Who are the couples that do not give birth to the intended child?

We estimated a logistic regression model predicting the non-realization of positive fertility intentions, according to a set of demographic and socioeconomic characteristics. The detailed results are reported in the Appendix (Table 1) in the form of coefficients and their corresponding p-values. Figure 7 shows the predicted probabilities of not realizing the positive fertility intentions expressed three years previously for selected hypothetical individuals.

The baseline is a childless person, aged below 24, in a cohabiting couple, with the female partner working in the public sector with permanent or temporary contract, and the male partner in employment, a home-owner, living far from mother/mother in law, primary educated, with no religious attendance during the last year. Such a person has a 66% probability of not realizing her/his positive fertility intention in France, while the percentage reaches 81% in Italy. *Ceteris paribus*, therefore, the results of our descriptive analysis are confirmed here.

Nonetheless, we found that the relationship between intended positive fertility and subsequent behaviors varies remarkably among different population profiles. Demographic (control) variables all go in the expected directions. Non-realization of intentions rises with parity. All other things being equal, French women with two or more children display higher probabilities of not realizing positive fertility intentions than the baseline: slightly more than 85%, as opposed to about 66%. For Italy the pattern is the same, although with lower intensity: slightly more than 84% vs. 81% of the

baseline person. Age differentials also corroborate the trend shown in the descriptive analysis, despite some differences in magnitude and significance between France and Italy. Compared to those aged below 25, the likelihood of non-realization is lower among those aged 25-34, and higher afterwards. The compression of the reproductive lifespan may indeed affect the possibility for women to fulfill their intended level of fertility, due to probable sub-fecundity (Ongaro, 2003).

Marital status – coded as married vs. cohabitants – is one of the most relevant variables influencing childbearing outcome. This is in line with earlier studies (e.g., Schoen et al. 1999; McDonald 2002). In short, among people in both countries wishing to have a child in the next years, cohabitants are less likely to have a child than married persons. However, we believe that this result requires further exploration; it could be the case, in fact, that the effects are not significant after controlling for union duration (similarly to what was found by Toulemon and Testa, 2005; Testa and Toulemon, 2006). An in-depth investigation on such result is particularly important because more than half of all first children are born to unmarried couples in France (INSEE, 2009). In Italy the significant difference between married and cohabiting couples was, on the contrary, expected. We previously found, for instance, that cohabiting couples desire even fewer children than married ones in Italy, while for France there is no such effect (Vignoli and Régnier-Loilier, 2009).

Individuals who had finished their education were classified into three groups: low (compulsory education and basic vocational education), medium (at least four years of education at the upper-secondary level), and high (bachelor's or master's degree). The influence of education is country-specific. In France it does not significantly impact fertility realizations. In Italy, among people planning a child in the near future, education appears to be the best predictor of subsequent outcomes. We found a positive gradient: the higher the level of education, the higher the likelihood of realized intentions. Such a positive correlation between education and fertility realization in Italy corroborates previous findings (e.g., Rinesi, 2009); it is probably explained by an income effect, assuming that women's educational attainment represents a valid marker of her labor market chances as well as her wage (Kreyenfeld, 2002; Salvini *et al*., 2009).

Women's employment status distinguishes between those who are employed, those who are not active (mostly housewives), and those seeking a job. Furthermore, among employed women we separated women working in the public sector, women working in the private sector with a permanent contract, and women working in the private sector with a temporary contract. We also tried an alternative specification of the employment variable, but the one we chose indubitably appears to be the most informative. The common finding for the two countries is that inactive women have a higher likelihood of fulfilling their childbearing wishes. The outcomes for working women differ between France and Italy, however. Compared to women's employed in the public

sector, those working in the private sector appear to be characterized by a higher probability of not realizing their fertility intention in France, probably due to a higher level of protection against job loss or job insecurity in the French public sector (OECD, 2009). For Italy, by contrast, we found a significant positive effect for women working in the private sector with a permanent contract. This appears to be the most favorable situation for realizing positive fertility intentions, maximizing the wage potential (private sector wages tend to be higher than public sector wages), on the one hand, and job security, on the other. This finding for Italy seems to confirm earlier studies (Ongaro and Salvini, 1999; Salvini and Ferro, 2000) where employment sector and work contract were not considered jointly, however.

Following the traditional micro-economic interpretation that emphasizes the male partner's breadwinner capacity, one would expected childbearing realization to rise if the male partner is employed and/or better educated. It does indeed increase, but not significantly.

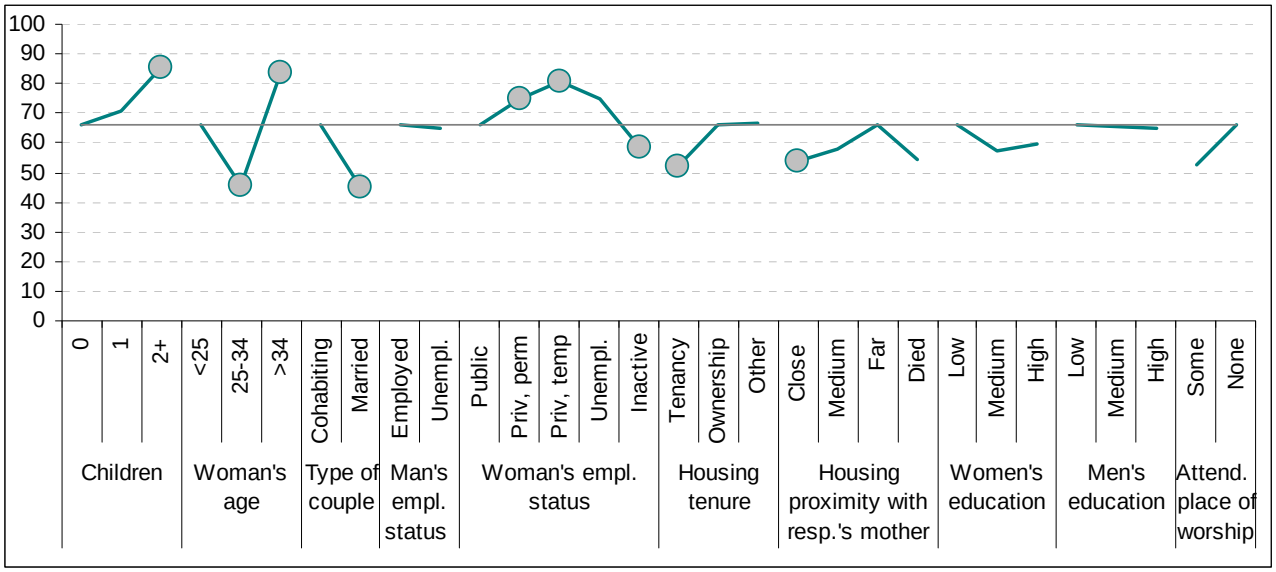
Housing tenure matters for France, where tenants are more likely to realize their positive fertility plans. This is an interesting result that is in line with previous fertility-housing literature for France. The key point in the explanation for a negative association between home-ownership and fertility in France is that property might compete with the cost of childbearing and childrearing (Courgeau & Lelièvre, 1992). For Italy we did not find a significant effect of housing tenure. This is not a surprising result. A recent study, for example, demonstrated that housing tenure does not affect fertility intentions (Vignoli *et al*., 2010). The authors found that it is other dimensions of housing that have a triggering effect, such as the subjective perception of the degree of housing security. A majority of households, in fact, may face financial constraints to various degrees. Factors such as housing prices, housing supply and the possibility of obtaining housing loans are of substantial significance for most households (Ström, 2009). In this study, however, we cannot distinguish in the Italian dataset between owner-occupied homes with and without mortgages; likewise, we cannot capture the subjective perception of the degree of housing security in the French dataset.

Religiousness separates those who practice a religion, either regularly or occasionally, from those who are not religious at all. Comparing France and Italy, Régnier-Loilier and Vignoli (2008) found that the degree of religiosity strongly influences fertility desire in the two countries. Here we find that such an effect vanishes when looking at fertility realization.

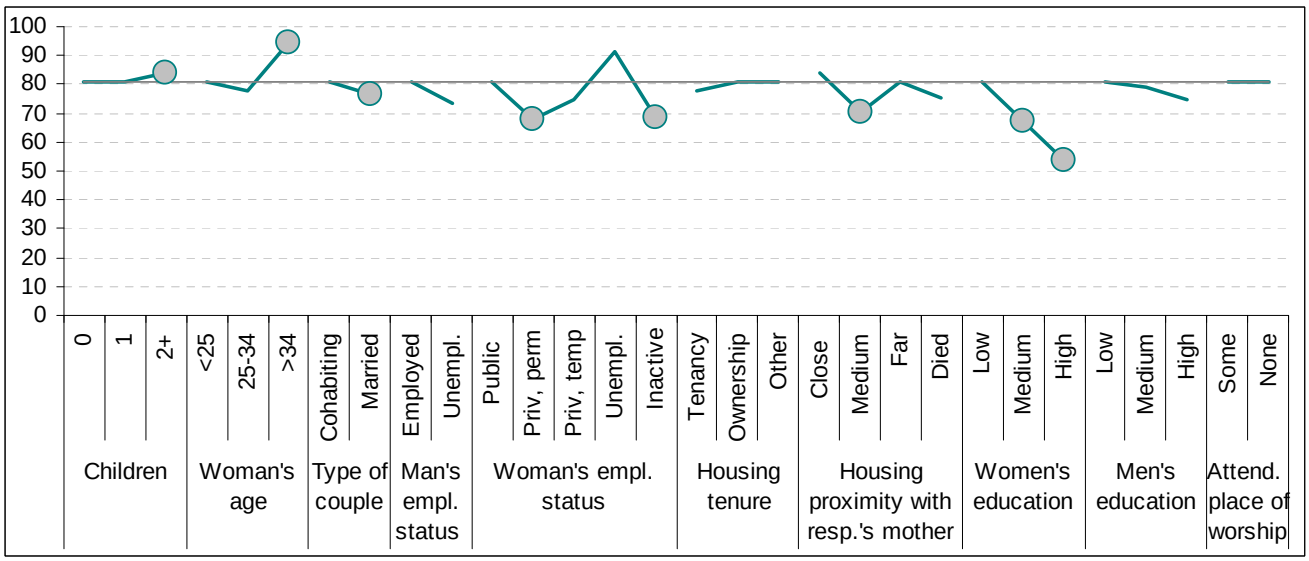
Finally, although with different significance and magnitude, the closer the residential proximity with mother/mother in law, the higher the likelihood of positive fertility realization.

Figure 7. Predicted probability of non-realization of positive fertility intentions in France (a) and Italy (b), by selected demographic and socioeconomic characteristics. Elaborations based on the results of a logistic regression model. Significant effects are illustrated by filled dots.

(a) France



(b) Italy



Source: Own calculations based on GGS-ERFI (round 1, 2005 – round 2, 2008) and FSS-GGS (round 1, 2003- round 2, 2007). For Italy the figure displays the pattern for women only. At this stage, men's fertility information is not available.

Note: Baseline person = Childless, aged below 24, cohabiting, woman working in the public sector with permanent or temporary contract, employed man, home-owner, living far from mother/mother in law, primary educated, with no attendance in place of worship during the last year.

Reading: Ceteris paribus, *French women with two or more children, for example, have higher probabilities of not realizing positive fertility intentions than the baseline: slightly more than 85%, as opposed to about 66% .*

We had to omit the partner's intentions from the list of our explanatory variables. Although these have been found to be important predictors of future childbearing (Thomson 1997), the standard version of the Italian dataset distributed by ISTAT does provide such information. This is a strong drawback of the study, especially because in its official report ISTAT (2010) states "T*he level of agreement in fertility intentions between partners has a strong predictive power for reproductive*

behaviors: the stronger the agreement of members of the couple, the higher the level of fertility realization".

Concluding remarks

Broadly speaking, a strong match between fertility intentions and realization could be expected in Europe due to the availability of both family planning (Thomson and Brandreth, 1995) and recent assisted reproductive technologies (Sobotka et al., 2007). In this paper we have made an initial analysis of the link between intentions and realizations in France and Italy. Foremost, we found that this relationship is more complex than expected. At this stage, at least three considerations can be drawn from our study.

First, we found that negative fertility intentions are potent predictor of subsequent fertility behavior, while positive fertility intentions tend to overestimate fertility realizations. This general pattern corroborates previous findings (Westoff and Ryder, 1977; Monnier, 1989; Schoen *et al*., 1999; Symeonidou, 2000; Noack and Østby, 2002; Toulemon and Testa, 2005; Testa and Toulemon, 2006; Meggiolaro, 2009; Rinesi, 2009).

Second, we found that the relationship between intended positive fertility and subsequent behaviors varies remarkably among different population profiles. As expected, demographic factors indicate that the compression of the reproductive lifespan may indeed affect the possibility for women to fulfill their intended level of fertility. Moreover, keeping equal the demographics, economic factors are also remarkably important. The realization of one's fertility plan seems to be highly dependent on the level of education (in Italy), the employment situation (both in France and Italy), and housing tenure (in France) in a context where the general perception of economic insecurity is becoming more and more widespread. Individuals who are economically better off seem to be in a stronger position to achieve their fertility plans. Nonetheless, we found that some of the considered factors are differently related to fertility realizations in France and Italy, suggesting that the search for possible constraints to fertility realisations should be placed in space and time.

Third, an important country-specific difference between France and Italy does emerge. In France the proportion of fertility realisations is systematically higher than in Italy, regardless of the expressed fertility intentions. In France there seems to be a more pronounced "wait-and-see" attitude which leaves the future open, even when people reported that they probably do not intend to have children. In Italy, by contrast, people appear more realistic about their future (negative) fertility expectation. This may be due to the fact that the French institutional setting is much more favorable for childbearing and childrearing than the Italian one. Italy, in fact, has seen a strong

increase in women's educational attainment and labor market participation in the last decades, but the domestic institutions have not adjusted to the ongoing societal change (Livi Bacci and Salvini 2000; McDonald, 2000; Matysiak and Vignoli, 2009). Such a situation may lead Italian people to be quite "realistic" about their future negative (!) fertility intentions.

To conclude, our analysis updates the knowledge on the degree of connection between fertility intentions and realization in France and Italy. However, the small-scale sample used did not allow us to make a detailed analysis stratified by age, gender, and parity. As a consequence, our inferences on the results have to be taken with caution. One of the priorities of our upcoming research agenda will be a further exploration of the two datasets that, in our view, represent an unique and original source to search for possible constraints to fertility realization.

Acknowledgments

Daniele Vignoli acknowledges the financial support provided through the 2007 Italian MiUR PRIN grant "The cost of children" coordinated by Gustavo De Santis, and the 2007 Italian MiUR PRIN grant "Life Course Dynamics between Context and Strong Ties" coordinated by Francesco C. Billari. The authors are grateful to Gerda Neyer for her comments on a preliminary version of the manuscript as well as to Catriona Dutreuilh for the language editing of the paper.

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Appendix

Table 1. Results of a logistic regression model predicting the non-realization of positive fertility intentions in France and Italy, by selected demographic and socio-economic characteristics.

		FRANCE		ITALY	
		Coef.	**P>z**	**Coef.**	**P>z**
Number of children	0	0.00	ref.	0.00	ref.
	1	0.22	0.36	-0.03	0.90
	2+	1.11	0.00	0.18	0,06
Woman's age	<25	0.00	ref.	0.00	ref.
	25-34	-0.83	0.00	-0.21	0.73
	>34	0.97	0.01	1.36	0.03
Type of couple	Cohabiting	0.00	ref.	0.00	ref.
	Married	-0.86	0.00	-0.26	0.05
Man's employment status	Employed	0.00	ref.	0.00	ref.
	Not employed	-0.04	0.90	-0.43	0.46
Woman's employment status	Empl. in public sect.	0.00	ref.	0.00	ref.
	Permanently empl. in private sect.	0.43	0.06	-0.71	0.02
	Temporarely empl. in private sect.	0.78	0.02	-0.38	0.43
	Unemployed	0.44	0.26	0.94	0.13
	Housewife	-0.32	0.37	-0.69	0.05
Housing tenure	Tenancy	-0.58	0.01	-0.21	0.47
	Home-ownership	0.00	ref.	0.00	ref.
	Other	0.04	0.94	-0.02	0.94
Housing proximity with respondent's mother/mother in law	Close - very close - distance	-0.50	0.05	0.21	0.47
	Medium distance	-0.35	0.17	-0.59	0.04
	High distance	0.00	ref.	0.00	ref.
	Not alive	-0.48	0.23	-0.33	0.47
Women's education	Low education	0.00	ref.	0.00	ref.
	Medium education	-0.36	0.15	-0.74	0.01
	High education	-0.26	0.38	-1.32	0.00
Men's education	Low education	0.00	ref.	0.00	ref.
	Medium education	-0.01	0.95	-0.14	0.56
	High education	-0.05	0.87	-0.37	0.29
Degree of attendance place of worship	Some	-0.55	0.15	-0.01	0.38
	Any	0.00	ref.	0.00	ref.
Costant		0.66	0.15	1.45	0.07