

**Are you ready now for another child?  
Life satisfaction, work-family trajectories  
and the progression to the second child**

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## **Abstract**

The research aims to study the relationship between fertility and subjective wellbeing on a sample of Australian couples (source: HILDA 2001-2009), followed since the year of the pregnancy of the first child. In particular, I focus on whether the arrival of the first child modifies new parents' fertility expectations and the subsequent probability to experience a second childbirth, as a consequence of the changes in couple's subjective wellbeing after the transition to the first parenthood. First, I investigate how the transition to the first parenthood is linked to the changes in parents' relationship satisfaction, as the main catalyser of the loss of satisfaction in different life domains. I found that perceived difficulties in adjusting to first parenthood, here intended as changes of subjective wellbeing in different life dimensions, negatively affect couple's relationship functioning, with different gender paths. In a second step, I examine how the changes in subjective wellbeing as result of the transition to the first parenthood can impact on parents' expectations to have a second child. I found that the more difficult is the adjustment process to parenthood, the more parents decrease their expectations about having an additional child, even if with important differences between women and men. Finally, I test whether mothers and fathers' changes in subjective wellbeing after the first childbirth might affect the timing for the transition to the second child. I found that a positive relationship functioning, and a positive adjustment in family life for men and working life for women, allow a quick transition to the second child.

The relevance of this study is double. The first is the adoption of a multidisciplinary approach, that considers the complex relationship between the demographical and psychological mechanisms behind the fertility decision making process. In particular, I combine the Theory of Planned Behaviour (Ajzen and Klobas 2013; Miller and Pasta 1995a; 1995b), the Dynamic Equilibrium Theory (Heady, 2006) and the Gender Equity Theory (McDonald

2000; 2013). The second is the use of a longitudinal approach: the analyses have been conducted using models for panel data, that better allow to describe causal relationships, controlling for endogeneity problems.

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# Introduction

## I. Research Aims

This study aims to contribute to the literature on the relationship between subjective wellbeing and fertility, trying to combine the two questions of whether and how the arrival of the first child changes couple's subjective wellbeing and if this, as consequence, changes the time and the probability of experiencing the second child. In order to answer to these questions, I perform longitudinal analyses using a representative sample of Australian couples from the Household Income and Labour Dynamics in Australia (HILDA) panel survey, from 2001 to 2009.

The relation between fertility and subjective wellbeing has been studied mainly by psychologists, and in particular looking at how the arrival of a child might affect parents' global happiness or life satisfaction. Most of these researches are conducted under the perspective of the Adaptation Theory (Helson, 1964; Headey, 2006): while life events can change the level of experienced subjective wellbeing, individual's personality defines a sort of set-point level of subjective wellbeing to which people tend to adjust along the life cycle. What lacks in the literature is the interest for the other direction of the relationship: how does subjective wellbeing might impact on individual's fertility behaviour? Up to recent time, sociological and demographical research has overlooked this question (Billari, 2009).

In order to encompass the two directions of the relationship between subjective wellbeing and fertility, I adopt a multidisciplinary approach. Firstly, I include the

psychological perspective in order to consider the effect of the first childbirth on parents' subjective wellbeing. Psychological theories of adaptation sustain that the way people react to life events is strongly related to individual's intrapersonal characteristics (see Chapter 2). For this reason, we must consider the backside effects of personality traits in shaping new parents' adjustment to first parenthood and their subsequent fertility decisions-making. While it has been proved that personality is strongly correlated with life satisfaction (Costa & McCrae, 1980; McCrae and Costa, 1991; DeNeve and Cooper 1998), few studies include personality traits for understanding fertility decisions (Kohler *et al.* 2005; Tavares, 2010). Secondly, we need to include the demographic perspective to understand the effect of subjective wellbeing on fertility. One of the causes of the low Total Fertility Rates (TFR) in the Western countries is the difficulty to reach the desired number of children. Having the first child is quite a normative choice and usually a joyful event, full of positive expectations. Nevertheless the reality of the first parenthood – i.e. the tiredness of sleepless nights, caring the baby and loss of leisure time, and in particular the difficulties to reconcile work and family – is often unexpectedly hard challenges for new parents. If the transition to first parenthood is perceived as easy, this might push new parents to desire and have a second child, while a difficult transition could represent an obstacle for planning new pregnancies at least in the short-term. Under this perspective, the theoretical base for addressing the question whether subjective wellbeing can affect fertility behaviour has been posited on the Theory of Planned Behaviour (Ajzen 1985; Ajzen & Klobas, 2013) and more specifically on the derived Traits-Desires-Intentions-Behaviour (TDIB) model (Miller & Pasta, 1995a). Considering the latent mechanisms that generate fertility intentions, this approach offers interesting possibilities to include the psychological dimension in the fertility decision-making. In particular, it interprets fertility decision as a process that starts from individual traits – latent motivations, considered as fixed at least in the adulthood – to generate fertility intentions – that can adjust to situational factors (see more in Chapter 3). After

considering how the arrival of the first child implies multiple and interrelated processes of adjustment to parenthood – in terms of both subjective wellbeing and expectations – I want to verify whether this might be related also to the realization (and the timing) of the second child (see Chapter 4).

## **II. Relevance of the study**

In the last 40 years, advanced societies have been affected by the problem of facing low fertility rates that, combined with the phenomenon of population aging, is challenging the welfare state of most of the Western countries. Demographers highlight how the problem of reaching the fertility rate replacement level is not due to childless couples, but to the increased number of couples that stay with only one child. Why many couples do not make the transition to the second child, while others still do it? Traditionally, the economic theory investigates the role of the rational evaluation of the opportunity-cost trade off between having one or two children (Becker, 1981), comparing different policy systems (Brewster & Rindfuss, 2000; McDonald, 2000). Another perspective focuses on the postponement of the transition to the first parenthood, as result of changes in the new values system, such the importance of self-fulfilment and the new gender-roles structure (Lesthaeghe and van de Kaa, 1986; van de Kaa, 1987): the parenthood postponement, reducing the availability of reproductive time for women, makes more difficult to reach the intended number of children (see Chapter 1).

Nevertheless, I do not know any study considering - among the subjective costs-opportunities of becoming parent - which is the impact of the psychological consequences of the first parenthood on individuals' fertility expectations and subsequent fertility behaviours. In particular, the psychological literature suggests that people change their level of subjective wellbeing after experiencing a life event, and that they tend to (at least partially) adjust to the new condition after some time (Heady, 2006). In this sense, also the adjustment of fertility

expectations after the first child can be seen as a result of a more general adjustment process to the first parenthood. Combining demographical, sociological and psychological theories about fertility and subjective wellbeing, I can improve the understanding of which is the effect of the first childbirth on the transition to the second child, in terms of its perceived impact on couple's life.

This perspective might contribute also to the sociological studies about the (gender) fertility consequences of different type of welfare state. If the difficulties in finding a new satisfactory life conditions after the arrival of the first child affect the decision to have another child, family policies might play an important role in structuring the subjective and objective opportunity-costs of having children. Policies can impact on couple's fertility offering facilitators for the adjustment at the transition to parenthood. Many sociological and economic studies highlight how the relative costs of having children can be high in contexts where there are no resources to facilitate women's reconciliation in family and labour market. Nowadays, researchers are not unanimous about the consequences of the family policies on fertility both at micro and macro level (Gauthier 2007; McDonald, 2006). The study of the Australian case can offer interesting perspectives on which might be the consequence of the transition to first parenthood in a context of lack of adequate family policies (Brennan, 2007) and high gender inequity in family and labour market (McDonald, 2000; 2006), but with a quite high fertility rate (Chapter 1). I argue that, in a context that does not support couples (and in particular dual-earner couples) at the transition to parenthood, the difficulties in reconciling might be source of frustration and dissatisfaction inside and outside the family. Nevertheless, sometimes couples can adopt other mechanisms to compensate for the absence of external resources. For example, the absence of institutionalized gender equity in both family and labour market might be compensated by the share of egalitarian practices/attitudes in dual-earner couples, and it represents a possible alternative way to reach higher fertility. It also means that couple needs to be more or less able to cope with parenthood difficulties according to the context: if it provides

external helps – i.e. through generous family policies – this might reduce the relevance of couple's ability to adjust to parenthood. But if parents do not receive external support and they do not have enough resources to adjust, they lose subjective wellbeing. It seems that the missing link for understanding if couple's have enough resources to manage the first and the second childbirth is the inclusion of the psychological costs and opportunities of having children. For family-oriented parents having children is an important opportunity for self-realization. But when the arrival of the first child reduces parents' opportunities to match their preferences with real life, it might make the adjustment to parenthood more difficult, increasing couple conflict and postponing the second birth. This means that the costs of having children are not merely financial, but also psychological, in the sense of self-fulfilment and preferences achievement. Up to now, little attention has been given by policy studies and policy makers to the psychological costs-opportunities behind fertility decisions. And changes in subjective wellbeing might be a powerful indicator of experiencing such costs and opportunities. Even if from this study I cannot derive conclusions about the consequences of the Australian family policies on couples' fertility decision, discovering the effect of the psychological costs-opportunities of first parenthood on the decision to have an additional child can offer new perspectives for comparative studies on family and fertility policies.

### **III. The research design: how the three papers are linked?**

In order to explore the two directions of the relation between subjective wellbeing and fertility, a longitudinal perspective is the best option for a full understanding of the process. Using data on Australian couples from 2001 to 2009, I exclude the influence of some external factors, such as the family policies reform happened in Australia between 2009 and 2011, that, among all, introduced the universal paid parental leaves. On the contrary, at least up to 2007, Australian government developed a set of policies to sustain higher fertility

which eventually reinforced the adoption of the traditional breadwinner model after the arrival of the first child (Cass, 2002; McDonald 2001). Next to the economic benefits, the absence of universal paid parental leave and policies for working mothers, reduce mothers' opportunity of full employment, making difficult mothers' family-work reconciliation. In this sense, we cannot fully interpret the results of the study without an in-depth knowledge of the demographic and policy context. For this reason, Chapter 1 has been dedicated to the Australian demographic trends and policy setting during the last 40 years.

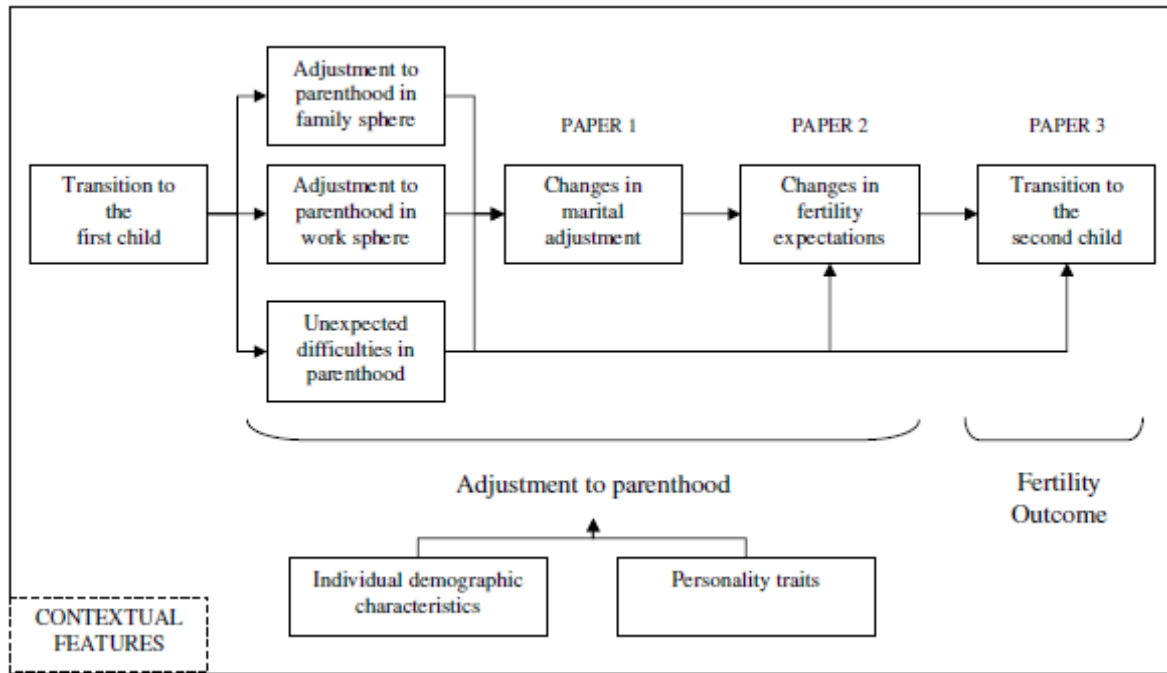
The other chapters try to answer three main research questions:

1. How does the adjustment to the arrival of the first child affect new parents' relationship functioning?
2. How does the adjustment to the transition to parenthood affect new parents' expectations about having a second child?
3. How does the adjustment to the transition to parenthood affect the timing for the transition to the second child?

Figure 1 shows how the three questions are linked in the research design. Even if the three dependent variables (changes in marital adjustment, changes in fertility expectations, and transition to the second child) are sequential, the covariates at the beginning of the process affect – directly and indirectly – not only marital adjustment but also fertility expectations and the timing of the second pregnancy.



Figure 10. The research design



Next, a main summary of the chapters is provided.

*Chapter 2:* the paper deals with the understanding of what happens in the couple's subjective wellbeing in the short-run after the arrival of the first child. In particular, the main question is whether relationship functioning changes as a consequence of the family and work related adjustment. For sure in most of the cases the first childbirth is a source of joy and self-realization for new parents. Nevertheless it has been found by several studies that the transition to parenthood usually leads to a decrease in partner's marital adjustment in the short-run (Twenge *et al.* 2003; Doss *et al.* 2009; Keizer, 2013). The experience of the first child is radically different from higher birth parities: first time parents have never experienced a previous similar life event, and they basically do not know how hard it can be and which difficulties they have to face. Even if they know indirectly from relatives or friends with children, parenthood remains an unexplored dimension of life for childless people. As a consequence, first time parents' plans and expectations made during the pregnancy might bump against

the real life after the birth of their child. Maybe for this reason, some difficulties in parenthood are harder to overcome if they are unforeseen, and this might increase partners' conflict or misunderstanding. For example, one of the biggest disillusionments that new parents live regards the amount of additional work the child entails, and the unexpected unequal share of tasks among them (Mencarini and Sironi 2011; Ruble *et al.*, 1998). Absence of gender equity (in sense of perceived unfairness) in family and job commitment after the arrival of the first child can become a source of conflict or at least of decline in subjective wellbeing. Difficulties might be higher for dual-earner couples, where the absence of partners' role specialization enlarges the set of tasks that have to be shared or bargained by the couple.

*Chapter 3:* the paper explores the relationship between couple's adjustment to first parenthood and changes in couple's fertility intentions in the short-run. The idea is that if couple does not adjust to parenthood difficulties and the couple's relationship is not satisfactory, this might impact on parents' decision to have a second child. The theoretical base of this study leans on the Theory of Planned Behaviour (Ajzen, 1985) and more specifically on the Traits-Desires-Intentions-Behaviour model (Miller and Pasta, 1995a): it suggests that fertility intentions are determined by latent motivation and desires, and they can be modified by the situational conditions. Fertility intentions, more than fertility realization, are indicators of parents' fertility plans: in particular, the literature suggests that intentions and realizations are not so highly correlated as expected because unpredicted difficulties might obstacle fertility realization, even if partners' intentions are strong (Shoen *et al.* 1999). We expect that marital adjustment is going to be a relevant factor for understanding changes in fertility intentions. Other variables related to difficulties in family-work reconciliation might affect fertility intentions, sometimes via changes in marital adjustment.

*Chapter 4:* the paper examines the fertility result of the adjustment process to parenthood, pointing the attention on the time and the probability for the realization of the transition to the second child in the 5 years after the first childbirth. Here the hypothesis is that difficulties in adjusting to parenthood and unforeseen difficulties have a negative effect on the probability to experience the second birth in the short-run. As fertility expectations and fertility realization are not necessary correlated, I expect to find that only some of the dimensions that are responsible for a loss of marital satisfaction and fertility expectation will be responsible also for the postponement/renunciation of the transition to the second child. Fertility expectations are also considered in the model: the aim is to understand how much of the effect of the adjustment to parenthood on the transition to the second child passes through fertility expectations and their changes.



# Chapter 1

## Parenthood, policies and work-family balance in Australia

### 1.1 Introduction

The aim of this chapter is to provide a description of the institutional context of the Australian case study and, in particular, the role of the family policies in supporting or inhibiting fertility, women's employment and gender equality in partnerships. To better contextualize the Australian welfare state between the 90s and the first decade of the 2000s, in this chapter I compare the Australian family policy systems as some demographic trends with other OECD countries. There is a wide literature on the relationship between policies and demographic trends, welfare states and consequences of gender equity - here intended as perceived gender equality (Mencarini, 2014). It highlights how Australia is among countries with liberal policies for families, and a high fertility rate close to countries with a Social Democratic welfare state (Nordic countries). The strong cultural value of having - at least two - children in Australia (McDonald and Moyle, 2010), combined with the lack of adequate policies for working mothers and dual-earner couples with children, make Australia an ideal case for studying the gender unbalanced consequences of childbearing. In particular, I will recall the literature on the effects of the Australian family policies until 2009, stressing the potential source of conflicts and dissatisfaction for women and men, such as the difficult reconciliation between family and work. This preliminary overview on the Australian welfare state will help to understand the results of this study. The lack of adequate family policies might decrease new parents' satisfaction

with the reconciliation between family and work and as a consequence negatively impacting on marital relationship functioning.

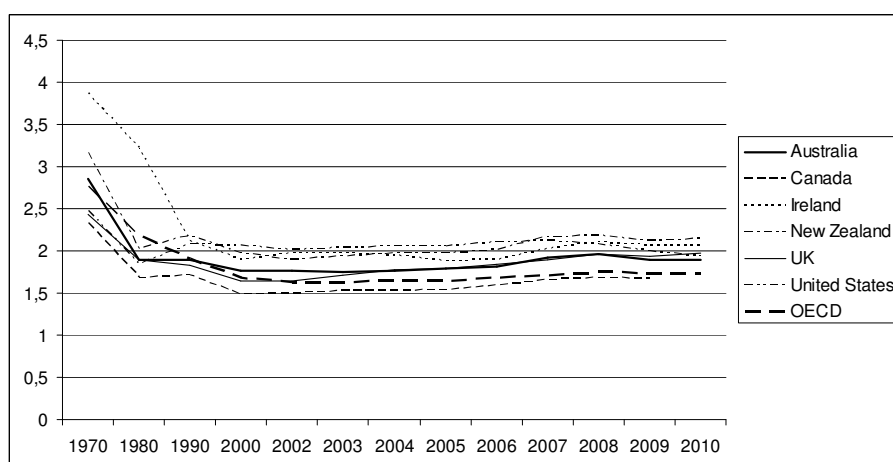
## **1.2 Demographic trends: a case of “fertility decline” in Australia?**

The decline of total fertility rates (TFR) has been a common phenomenon among the Western countries since the beginning of the 1970s. This trend has been associated with a wider change in the demographic structure of the society, such as the increased level of women’s education, the high female participation in the labour market and the birth control using the contraceptive pill. All these changes can be interpreted under the holistic perspective proposed by Lesthaeghe and van de Kaa (1986; van de Kaa, 1987) named “Second Demographic Transition” (SDT). The approach describes the broad change in the demographic characteristics happened in the Western countries since the ‘70s, as results of changes in cultural factors. In particular the new importance of self-investment and realization in education and job career for women, the new contraceptive techniques, the value of children and the attitudes towards partnership and cohabitation have been considered responsible for the increased women’s participation (and attachment) to educational system and labour market, the variety of family formation processes and the reduction of fertility rates.

Evidences of the SDT are present also in Australia (Carmichael, 1998; Jain & McDonald, 1997). One of the main concerns related to the consequence of the SDT is the decrease of fertility, especially because it is related to another demographic phenomenon: the population ageing. As happened in other countries, Australian governments and policy makers have been alarmed by the statistics on the fertility trend in the last decades. In fact, since 1970, Australian fertility rates have followed the decreasing trend of the average total fertility rates among English-speaking countries and the OECD average (see Figure 1.1).

Nevertheless, even if it does not reach the replacement rate (2.1 births per woman), since the 2000 the fertility rate in Australia is always over the average rate in OECD area, with a maximum of 1.95 in 2008 (source Australian Bureau of Statistics). It means that, at least during the last 15 years, we cannot include Australia among the OECD countries with low fertility rate.

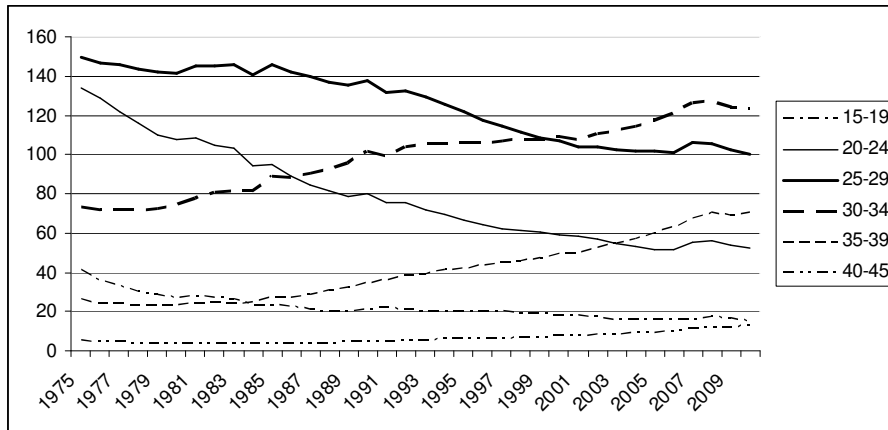
**Figure 1.1. English-speaking countries and OECD period Total Fertility Rate (TFR) between 1970 and 2010.**



Source: elaboration OECD family database 2012

The fact that we cannot speak about a decreasing fertility in the last 40 years in Australia is more evident if we consider the existence of a tempo-effect: the idea is that women are not having less children, but they are postponing the age for their realization. In fact, if we look to the age specific fertility rate during the same period (Figure 1.2) we can see that while the birth rate among the younger women is decreasing (women aged 15 to 29), the birth rate among women aged 30 to 39 is increasing. These evidences suggest, at least from the end of the 90s and the beginning of the 2000s, the existence of a tempo-effect on the TFR: for the cohorts of women born at the beginning of the 70s, childbearing seems to have been postponed from younger to older ages.

**Figure 1.2 Mother's age specific fertility rate in Australia, 1975-2010**



Source: Australian Bureau of Statistics

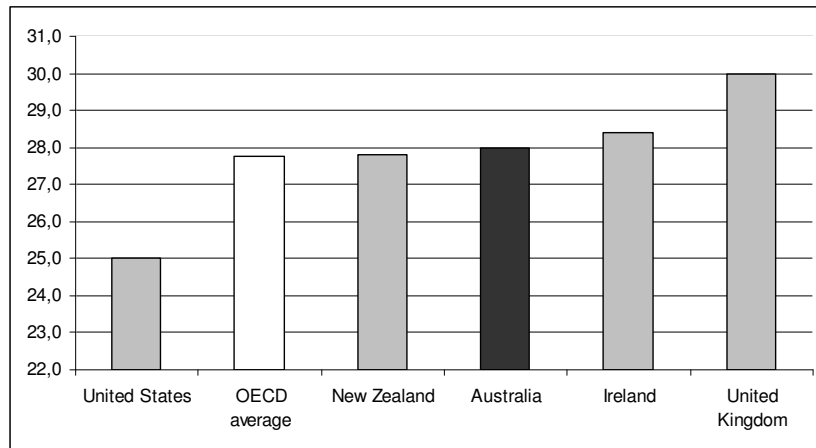
The same effect has been suggested also by Myrskylä et al. (2013): looking to the Australian trend in cohort fertility for women born between 1950 to 1979 (projected), the authors found that while fertility is decreasing for the cohorts until 1970, from this cohort fertility is stable, or with a little increase. Compared to other English-speaking countries, Australian trend is similar to New Zealand, UK, Canada and Ireland, while US is the only country in which the cohort fertility is increasing since the beginning of the 50s, with a more stable path for the last cohorts. The authors highlight how the trend for English-speaking countries are different if compared, for example, with the Nordic countries (where the trend is almost flat along the cohorts) or with the Mediterranean countries (where the trend is always decreasing).

Even among English-speaking countries, Australia shows interesting differences in the postponement of the transition to motherhood, in particular looking to mothers' mean age at first birth. During the last decades, Australian woman's mean age at first birth increased from 20 years old in 1980 to 29 in 2008 (ABS 1981: Births Australia, Catalogue no. 3301). Nowadays, in a comparative perspective, Australian mothers at first birth are older if compared to US and



OECD average (Figure 1.3), but younger if compared to Ireland and in particular UK.

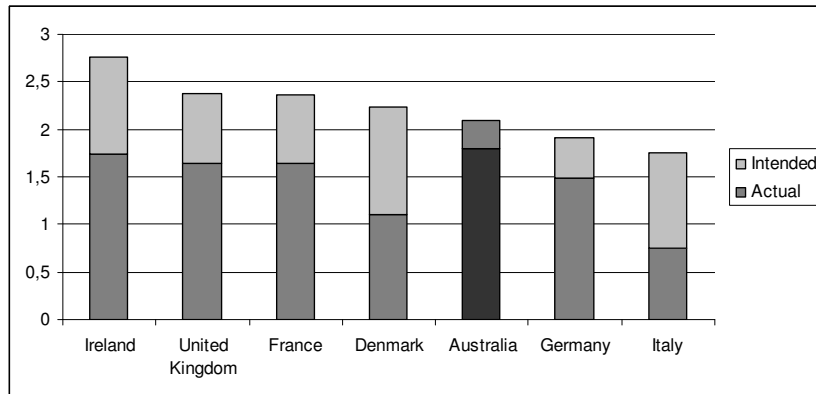
**Figure 1.3. Mother's mean age at first birth in English-speaking countries and OECD in 2009**



Source: Eurostat (2012) and United Nations Statistical Division (2011) and National Statistical Offices.

The relation between delaying first childbearing and the total fertility realization of the woman (number of children the woman has at the end of her reproductive period) depends on the mother's age at first birth - older is the mother more difficulties she will face in achieving second and especially third order parities – and on the intended number of children (mother and fathers' preferences). Nevertheless, it seems that reaching the intended family size in Australia is far less a problem than in other countries. Looking at the comparison between intended and actual number of children among some OECD countries (Figure 1.4) we can observe that the difference between expected and real family size is smaller in Australia compared both to other English-speaking countries (UK and Ireland); Nordic countries (here Denmark), European continental countries (France and Germany) and Mediterranean countries (here Italy).

**Figure 1.4. Women’s intended and actual family size in selected countries of the OECD (women aged 25-39)**



Source: elaboration by OECD family database 2012

In short, we can speak about a reduction of fertility until the 70s in Australia, but we should be much more cautious about the fact that the fertility decline has happened later. The fact that the intended family size and the actual family size in Australia are also very close would relax the idea that some constraints are now reducing the possibility for women to reach the planned number of children. Maybe we can observe that fertility intentions are lower in Australia if compared to other countries such as UK or France, that might reveal that Australian women perceive more difficulties to plan higher fertility.

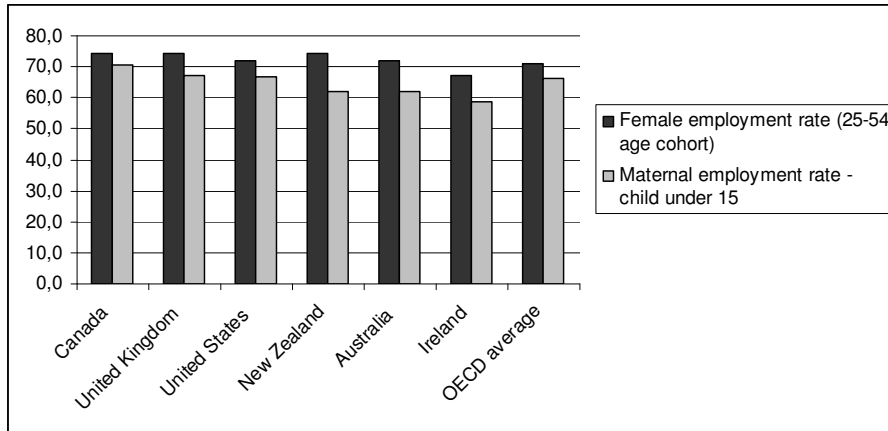
Despite these evidences, we should also be cautious about the idea that Australia is without fertility problems. We will see in the next sections how a fertility decline might become a problem in the near future. The main concern regards the great discrepancies in gender equal opportunities system after the transition to parenthood, both in the labour market structure and the in family policies system. There are evidences about the fact that contexts where institutions are not gender egalitarian, but egalitarian gender attitudes are widespread among the population, have lower fertility. This situation has been identified as an “incomplete revolution” (Esping-Andersen, 2009), in terms of gender roles development, and it has been described as an unbalanced – transitional – condition. Women are

obliged to choose between work and family commitment as the institutional context does not sustain adequately mothers and fathers' commitment in both family and labour market. The incoherence between the institutional system and the values system has been highlight also by McDonald (2000; 2013), who equally stresses the negative consequences in terms of fertility outcome. As a consequence, there is a general consensus in identifying the policy system reform as the way to solve the conflict and to find a new balance.

### **1.3 Labour market and the transition to motherhood**

Australian labour market is one of the most favourable among OECD countries at least in terms of low unemployment rates. Between 2000 and 2012 the total mean unemployment rate calculated on the entire population aged 15-64 was around 5%, without significant gender differences (Source: OECD statistics). Looking at the employment situation, the total employment rate for population aged 25-64 between 2000 and 2012 is around 75%, (82% for men), while the average employment rate for women in the same period is about 68% (Source: OECD statistics). As unemployment rates are similar between genders, such gender differences in the employment rates seem to be related to the lower women participation to the labour market. In particular, the low women's presence in the labour force in Australia can be at least partially explained by the low mothers' employment rate: the distance between the female employment rate and maternal employment rate is one of the biggest among the English-speaking countries and in the OECD (see Figure 1.5).

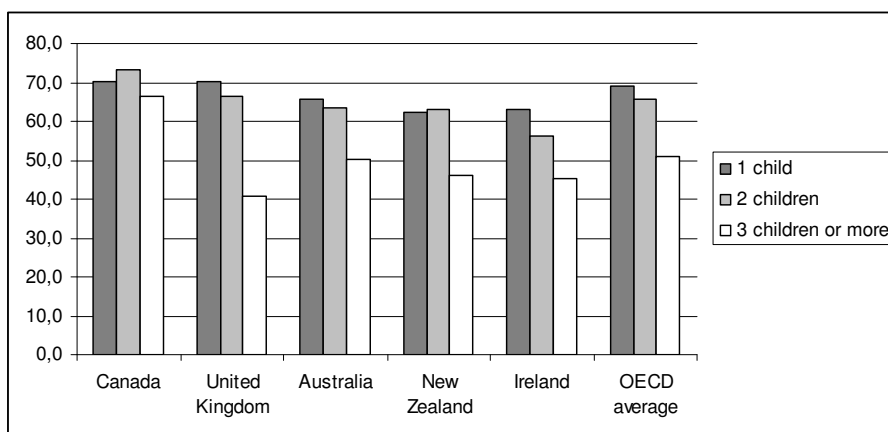
**Figure 1.5. Women (aged 25-54) and mothers' (with at least one child under 15) employment rates in some English-speaking countries and OECD (2009)**



Source: elaboration by OECD family database 2012

Compared to other English-speaking countries and OECD area (Figure 1.6), the proportion of women out of paid work is higher among Australian mothers with one child. While the arrival of the third child seems to affect negatively mothers' participation to the labour market in all the countries (except Canada) the effect is lower in Australia. At the same time, the biggest effect seems to be on whether they have the first two children.

**Figure 1.6. Maternal employment rate by number of children under 15 (2009)**

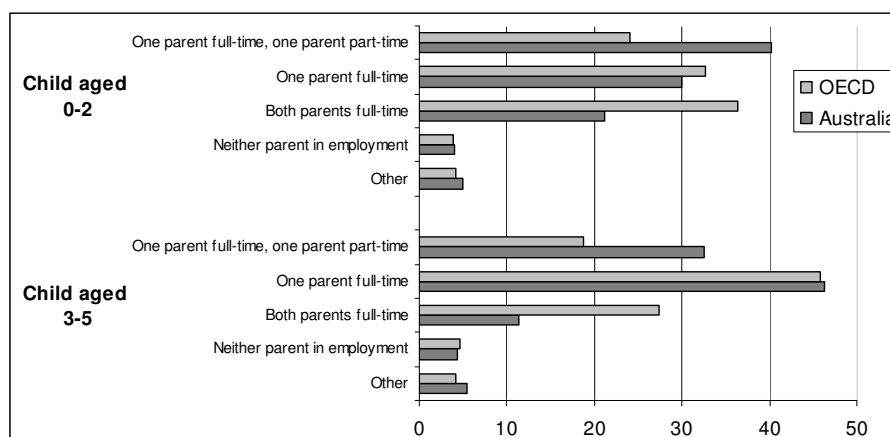


Source: elaboration by OECD family database 2012

The transition to motherhood seems to affect also the type of commitment Australian mothers have in the labour market, at least in terms of time dedication. Considering couples with at least one child aged less than 15, the proportion of couples in which both the partners are employed full-time in Australia (i.e. 20%) is below the average value among OECD countries (i.e. 37%), staying among countries with the lowest low proportion (OECD Family Database 2012). On the other side, Australia shows one of the highest proportion of couples in which only one partner works full time (i.e. 30%, while OECD average is around 25%), and couples in which the other partner works part-time (i.e. 40%, compared to the 20% among OECD countries). The typical model for family with children seems to be the traditional “breadwinner model” or the “part-time mother” model.

The picture can be made more detailed if we look at Australian couples with at least one child in the first childhood (see Figure 1.7). The “one parent in full time work” model is typical both in Australia and among OECD countries when the child is aged less than 2. But when the child turns 3 years old, and at least until 5 years old, while the “both parents working full time” model becomes the most common among OECD countries, in Australia the biggest proportion of couples are “one parent in full-time work, one parent in part-time work”.

**Figure 1.7. Employment condition of the partners in Australia and the OECD (2008)**



Source: elaboration by OECD family database 2012

As already discussed, the impact that the SDT have on the demographic characteristics of a country depends on the welfare regime and, more generally, on the policies structure. We will see now how policies can influence the decision-making process about fertility.

## **1.4 Family policies**

On a pure rational perspective, having children entails additional costs for parents. The cost of a child can be related to economic investment (in childcare, education etc.) and to time investment into preferred activities. As childcare is time consuming, usually time for children is taken up by time for work and/or leisure. At least in a liberal context, when the time for childcare often subtracts time from work, it might reduce both career opportunities and/or economic returns – because parents have to pay for external childcare. Higher is the perceived level of the costs of having children, lower might be the probability for a couple to have a (another) child.

Welfare regime, and work and family policies in particular, can reduce the cost of childbearing and relax the conflict between family and work commitment (Esping-Andersen, 1990; Brady et al. 2005). Generous allowances and supports for parents participation to labour market are two possible ways to protect mothers and fathers equal opportunities, especially compared to non-mothers and non-fathers. According to Esping-Andersen (1990), when the welfare state does not promote employment opportunities and tends to guarantee at least one full-time employed person per family (breadwinner model, or male breadwinner model combined with female part time model), in this case the more typical division of roles in the family is the traditional gendered model (such as in Mediterranean and Liberal countries). On the opposite side there are the welfare regimes that sustain full employment for both women and men, as gender equality in all the social spheres, such as the cases of Nordic countries. In terms

of fertility consequences, in the first type of welfare regime having children is highly-costly: usually working mothers are the most disadvantaged because of the difficulties to manage childcare, work commitment and career opportunities. In the second type of regime, having children is not so much costly: working mothers and fathers are supported economically and practically (e.g. universal paid long parental leave for both mothers and fathers; free access to public childcare; etc.) and their participation to the labour market is protected. Nevertheless, we saw in the previous section that up to now the fertility trends and especially the fertility rates of the liberal and the Mediterranean countries are different: in particular, while Mediterranean countries are among the countries with the lowest low fertility, English-speaking countries have a fertility rate close to the replacement level. A possible explanation comes from McDonald and Moyle (2010): the authors claim that the values system that sustain female double commitment in family and work among English-speaking countries is not commonly widespread in Mediterranean countries. At the same time, while having only one child might be considered as an acceptable model for families in Mediterranean countries, it is not the case in English-speaking countries, where having at least two children is the normal model.

The absence of institutional support for working mother and family balance among liberal countries, and Australia among them, is source of inequality within their population. In particular, the relative absence of a labour legislation generates inequality among people with disadvantaged positions in the labour market, such as young people, women and in particular mothers (Mills and Blossfeld, 2013). The presence of family policies should partially protect those categories and in particular family with children, offering public services and financial support to sustain both family and work commitment of the parents. Another way to read this relation is that the increase in women's education level has changed the pattern towards occupation and motherhood. High education is always associated with values such as being career oriented and independency (Mills, 2004). Where there are no adequate policies to support career aspirations

of mothers and fathers, the conflict between family and work commitment might become one of the causes of first childbirth postponement. This might be the case of Australia, where the inadequacy/absence of universal paid parental leave and public childcare services make women's investment in family and work more difficult. Also on fathers' side, different types of welfare regime have different consequences: in the Scandinavian model father's role in childcare is equally important than mother's, allowing both to take time from the labour market for parenting; on the contrary, in the family-oriented model and in the liberal model, the mother tends to be the primary carer of the children, while father has the institutionalized role of being economic responsible of his family.

The decreasing trend in the total fertility rate in Australia has been source of concern for the government action at least since the beginning of the 2000s (Barnes, 2001). With the prospective aging of population, a low fertility rate raises the question whether the system can economically supports the increasing costs of pension provisions and health system. More than for claiming rights by feminists, the problem of economic sustainability of the entire system became the spur of the government action on fertility promotion (Brennan, 2007). The history of Australian pro-natalist policies run in two different phases. The first, from 1996 to 2006, is characterized by the government action of the conservative party: fertility should be increased encouraging Australian couples to adopt a traditional family model based on gender division of roles. The second, from 2007 under the labour party government, are mainly based on promoting fertility through sustaining women's employment and gender equity.

Policy reforms for families introduced between 1996 and 2006 centre their focus on the concept of "free choice" and "family unit" (Brennan, 2007). The reference to a "free choice" regards the possibility for the individual to choose between caring their children or invest in her work career. The government action pushes in the direction to sustain mothers who decide to exit the labour market and to be totally dedicated to their own children. This perspective can be linked also to the

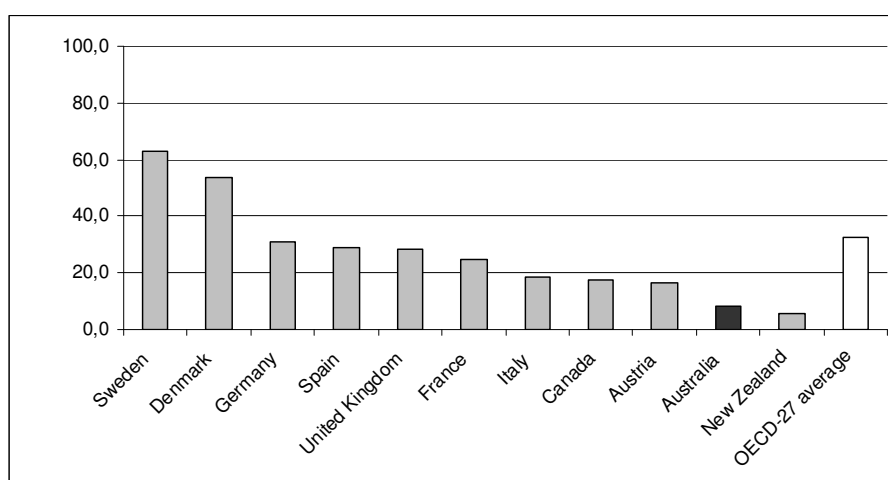


fact that policies are directed to “family” instead of fathers or mothers: family should be able to allow women to stay at home to grow their children without financial constriction that would send them to the labour market. While the policy consequences will be discussed in the next section, here we want to describe the main features of the Australian governments actions between 1996 and 2009 (with the approval of the paid parental leave scheme) to support higher fertility. The main interventions of the governments regard parental leave, family transfers and childcare.

### 1.4.1 Parental leave

Until up to 2009 Australia has not universal paid parental leaves. Just one full year (12 months) of protected unpaid leave is guaranteed for the mother, but not for the father. Figure 1.8 shows public spending for parental leave in OECD countries during the 2009: Australia and New Zealand are the countries with the lowest spending. At this time, Australia is one of the very few Western countries where the welfare regime did not financially support parental leave.

**Figure 1.8. Parental leave payments among some OECD countries: spending per birth as percentage of the GDP per capita.**



Source: elaboration by OECD family database 2012

Up to 2007, with the election won by the labour party, paid parental leaves are considered an aspect of the job contract to be negotiated at the workplace, and not a matter of public intervention. All the general issue of work-family balance is something regarding the private bargaining process between employer and employee. Government opposition to public intervention in this domain is justified by the idea that giving public funds to working women to manage work and family commitment it is discriminatory towards women who decide not to work for caring their children (Brennan, 2007). For this reason, instead of introducing maternity leave, conservative government institutes a “Maternity Payment” paid to both working and not-working mothers and independent to the family income (we will describe later this allowance discussing the other family transfers). This measure is thought clearly for favouring non-working mothers: in fact, no one measure of protection to working mothers’ income have been approved next to the Maternity Payment (Baird et al. 2002; Baird, 2003; Brennan, 2007).

The electoral won of the Labour party in 2007 is followed by the approval of the *Fair Work Act 2009* that extend the period of unpaid parental leave from 12 to 24 months. In 2009 the government announced also the introduction of a paid parental leave scheme that became effective since January 2011. As Broomhill and Sharp (2012) underline, the legislation does not sustain the “right” of taking parental leave, but it guarantees a public payment for parents in unpaid parental leave. The access to parental leave is regulated under the industrial legislation, as introduced by the *Fair Work Act 2009*.

A brief description of the main points of the Australian paid parental leave scheme in 2009 is reported in Box 1.1.

### **Box 1.1. Australian Paid Parental Leave Scheme (2009)**

1. ***Duration of paid leave***: The maximum number of weeks for which parental leave is payable are 18 per family: the payment is about the 53% of the national full-time average female earnings (about 543AU\$ per week, more or less 305 Euro);
2. ***Who is eligible***: the primary carer (so usually woman) is eligible for paid leave: she should be working continuously at least 10 months and 330 hours during the last year. In addition, the primary care is eligible if she earn less than 150,000AU\$ (85,000 Euro) per year (or four times the full-time average female earnings);
3. ***Parental leave is transferable***: the leave benefit has been thinking for the family: weeks of paid leave can be transferred to one primary care to another one, if the second meets the previously cited prerequisites;
4. ***Parental leave can combine with other leaves***: the public paid parental leave have to be considered as an additional benefit to other forms of paid leaves derived by the job contract conditions;
5. ***Parental leave cannot combine with other benefits related to childbearing***: individuals eligible for paid parental leave cannot claim other benefits from the public social security

In order to understand Australian parental leave system in a comparative way, Table 1.1 summarizes the main features of the paid parental leave scheme in some OECD countries. The less generous parental leave systems are from liberal countries. In particular Australian system provides less support compared to UK, but they are both more generous than US, that basically do not guarantee any type of paid parental leave. Even if France seems to have an equally poor scheme for paid parental leave, compared to liberal countries France is more generous in the subsequent unpaid paternal leaves and it provides very generous policies for sustaining family with children. On the opposite side the Scandinavian countries, in this case Denmark and Sweden, are the most generous systems, both for number of months and percentage of guaranteed full pay.

**Table 6.1. Paid parental leave in some OECD countries (2011)**

<i>Country</i>	<b>Paid maternity leave</b>	<b>Paid paternity leave</b>
<i>Australia</i>	18 weeks at federal minimum wage (around AU\$543/week), while Partner receives 2 weeks at federal minimum wage.	No paternity leave. Only if mother is not already taking the leave otherwise he is eligible only for unpaid leave (parental leave: 3 weeks).
<i>US</i>	no	no
<i>UK</i>	52 weeks: 6 weeks at 90% of full pay + others at a flat rate (as of 2011 = £128.73). Private bargain might lead to more generous arrangements.	2 weeks at a fixed amount (as of 2011 = £128.73) + up to 26 weeks' paid Additional Paternity Leave if mother is back to work
<i>France</i>	16 weeks: 6 weeks before and 10 after the birth, rising to 26 weeks for third child: 31% of full annual pay	3 days + 11 days (18 days for multiple births)
<i>Germany</i>	14 weeks, 6 before birth: 100% of full pay + 12/14 months (14 only for single mothers): 65% of full pay, but not more than 1.800 Euro/month	12/14 months (14 only for single fathers): 65% of full pay, but not more than 1.800 Euro/month
<i>Finland</i>	Min. 105 days, followed by share of 158 days with father: 58% of full annual pay	Min. 18 days, + 158 days shared with mother after maternity leave
<i>Sweden</i>	16 months: 82% of the full annual pay. It is shared with father.	16 months shared with mother + 70 days dedicated (10 days for the birth time)
<i>Denmark</i>	52 weeks: min. 18 must be taken by the mother: 100% of full annual pay	Min. 2 weeks of the 52 weeks must be taken by the father
<i>Italy</i>	5 months, 2 months before the birth: 80% of the full pay	No paternity leave. It is guaranteed only if mother is not taking the leave, otherwise he is eligible only for unpaid leave (parental leave: 13 weeks)
<i>Spain</i>	16 weeks, at full pay	15 days: 2 at the birth time + 13 during the maternity leave at full pay
<i>Ireland</i>	26 weeks: 80% of the salary	no

Sources: EURES, Living and working conditions (<https://ec.europa.eu/eures/main.jsp?lang=en&acro=lw&catId=494>); [http://go.nationalpartnership.org/site/DocServer/Expecting\\_Better\\_Report.pdf?docID=10301](http://go.nationalpartnership.org/site/DocServer/Expecting_Better_Report.pdf?docID=10301); Gornick J., Ray R. and Schmitt J. (2008), *Parental Leave in 21 Countries: Assessing Generosity and Gender Equality*, Centre for Economic and Policy Research.

A part of the provision of paid parental leave, Australian policies offer other benefits to family with children, with the main aim to reduce the economic cost of having a child.

### 1.4.2 Family transfers and childcare.

From the second half of the 90s to 2006, the liberal-conservative government develops a set of financial benefits for families with children, mainly based on four types of economic help (Braithwaite, Reinhart, Job and Harris, 2005; Brennan, 2007):

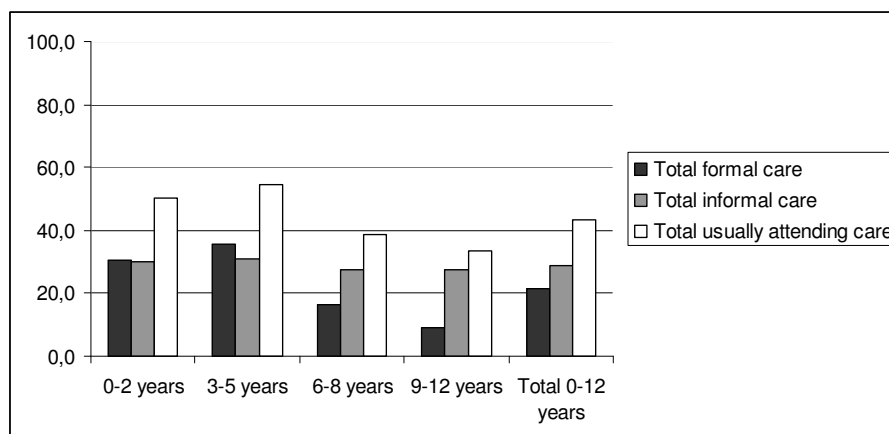
- a. *Financial Tax Benefit (FTB) Part A*, a two-tiered payment linked to the number and age of children (up to 20 years of age);
- b. *Financial Tax Benefit (FTB) Part B*, to provide extra help for families with one main income, including sole parents (children below 5 years of age);
- c. *Child Care Benefit (CCB)* and *Child Care Rebate*, to assist families with their child care costs;
- d. *Baby Bonus* (formerly known as the *Maternity Payment*), to assist families following the birth or adoption of a child;

*a./b. Financial Tax Benefits:* Since 2000 and before 2007, most of the financial support is directed to low-income families in order to give parents a “choice” between working and caring for children. FTB Part A provides financial helps for families with dependent children up to 20 years of age (or 24 in case they are students): it is income tested but about 90% of the families are eligible.

FTB part B is directed to one-income families and can combine with FTB Part A. It is not income tested, while a second household income makes possible to be eligible for FTB Part B only if it is under 4,000AU\$ per year (about 1500 Euro: this threshold was arisen in 2004, while previously was 2,000AU\$ per year). In particular, FTB Part B seems to incentivize couples in which one of the two partners stays at home taking care of the child. The result was that Australia benefits system seems to favour one-earner household, penalizing the equal distribution of family and work commitment in the couple.

c. *Child Care Benefit*: It has been introduced to subsidizing childcare costs and it is directed to childcare provider, instead of family. The sum is paid taking into account parents' occupational status, income, and the number and ages of the children. Parents working or looking for a job can access to fifty hours of subsidized childcare per week for each child. If parents are going to use informal childcare (relatives, friends, etc.) they were eligible for 27AU\$ per week (10 Euros). In 2004 Child Rebate has been also introduced for family with parents in labour market (working or looking for a job): this measure introduced tax deduction for childcare expenses up to 3,800AU\$ (2,500 Euro). For this reason, this policy has been accused to help high-income families that are the ones investing more in childcare services (Brennan, 2007). In fact, childcare services are mainly private, while the public spending on childcare is around 0.2% of the GDP - compare e.g. to the 2.5% in Denmark (OECD, 2007). If considering Child Care Benefit and Child Care Tax Rebate entitlements, parents pay, on average, a net of 53AU\$ per week for formal care for children under 5. We can see in Figure 1.9 that the use of formal childcare is higher when child is less than 5 years old, but particularly when child is aged 3-5 years. Nevertheless, maybe because of the high cost of childcare services, informal childcare covers an important percentage of the total childcare (about 65%).

**Figure 1.9. Type of child care for children aged less than 12 years (2008)**



Source: ABS 2008 Childhood Education and Care Survey (CEaCS)

The use of formal childcare seems to be particularly related to the employment conditions of the parents. In dual earner couples, where both parents are employed full-time, 60% of children under 12 years old attend formal childcare services. In case one parent is employed full-time and the other parent is employed part-time, the percentage of children aged less than 12 using formal childcare fell to 51%. Among couple with only one parent employed (breadwinner model), only 17% of children attend private childcare. Nevertheless it seems that the provision of formal childcare services is not sufficient to meet parents' need - because of the costs, the unavailability of places (provided for only for 16% of the total number of children aged less than 5) or even of childcare services in the area (OECD, 2007).

*d. Maternity Payment.* This "Baby Bonus" is introduced in 2001 as an income-based measure under the name of "*First Child Tax Refund*": it returns to new mothers the taxes paid during the previous working year under the condition they abandon (and remain outside) the labour market after childbirth. It is independent by the partner's income and it gave the major benefits to high-income mothers (Brennan, 2007). In 2004 the government changes the nature of the Baby Bonus and it becomes a lump-paid sum of 3,000AU\$ directed to new child's parents, independently by mother's income and occupational status. The sum is increased up to 4,000AU\$ in 2006 and to 5,000AU\$ in 2008 (Parr & Guest, 2011).

Labour government changes the accessibility to Baby Bonus, excluding high-income families from the measure: from 2009 Baby Bonus can be paid to family with a taxable income of 75,000AU\$ or less in the six months after childbirth (Australian Government, Department of Human Services).

## **1.5 Evaluation of policies effect**

Public policies can impact on fertility pushing on different buttons: the economic costs/benefits (cost of childcare, income, etc.) and the social norms (preferences,

values, etc.). It means that individual's fertility behaviour cannot be explained just by economic rational calculation but it involves also non-economic costs or benefits (Hether, 1994). Maybe this is one of the reasons why the literature on the effect of public policies on family structure and fertility behaviours offers mixed results. A review of the literature on the relationship between public policies and fertility by Gauthier (2007) reveals how family policies tend to have small effect on completed fertility and influencing more the timing and spacing of the births. On the opposite point of view is McDonald (2006) whose conclusion is that literature shows evidences about the impact of policy on fertility outcomes. We report here the main results in the literature about the social consequences of those family policies developed in Australia from 1996 to 2006.

Australian fertility policies arise in a period of economic growth, where both men and women's employment rates increase for all the age-classes, even if women's employment rate is still lower than most of other developed countries (Craig, Mullan and Blaxland, 2010; Craig and Siminski 2010). What it does not change is the shape of the employment curve over female age, that still shifts down for women aged 30-40. At the same time, even with the favourable economic situation, Australian TFR does not increase during the 90s, while the small increase during the 2000s seems not an effect of the policy intervention (McDonald, 2006; Parr & Guest, 2011) but more a tempo-effect due to women aged 30-39 in 2000s, that simply postpone the transition to parenthood during the 90s (Kippen, 2006). The idea that the small increase of fertility rate during the 2000s could be related to the strong economic growth more than to the government measures on family policy, can be suggested by the literature on the relation between economic cycle and fertility (Gauthier and Hatzius, 1997; Sobotka, Skirbekk and Philipov, 2011).

But if this set of policies is not responsible for a positive change in Australian TFR trend, it has been strongly criticized in its gender consequences. The main critics concern the lack of policies for supporting full female occupation: since



1998, all Australian government interventions for increasing fertility rate sustain non-working mothers, while no policy interventions have been introduced to support mothers' full employment. But, as some studies reveal, the way to increase fertility passes by supporting female participation to the labour market (McDonald, 2001; Castels, 2002).

Moreover, these policies have been accused to be unequal in their social consequences. The main critics are moved to the basic idea of the policy intervention: "more traditionalism, more children". Between 1998 and 2006, the liberal-conservative government puts its efforts on the conviction that lower is the direct and indirect costs of having and maintaining children, higher would be the probability for couples to decide to have more children. For this reason, policy makers develop an articulated system of economic benefits mainly directed to reduce the cost of childbearing, supporting in particular single-income families (male breadwinner model). In other words, couples receive generous tax benefit and allowances as long as one parent stays out of the labour market, taking care of the children. Taking everything into account, the structure of the tax related benefits for families represents a disincentive for mothers to stay into the job market as maternal employment becomes more costly. Some studies conducted on the social and demographical effects of this set of policies, reveals as far to increase Australian couples' fertility (Fan and Maitra, 2011), it increases gender gap, penalizes working mothers and decreases birth rate among young women (McDonald, 2000).

At the micro level, Sullivan and Gershuny (2001) argue that while in household without children the gender division of labour did not change in that period, in households with children the convergence of the gender division of labour (domestic work), experienced between 1992 and 1997, stops and reverses starting from 1997. Craig and Siminski (2010) analyze in which way gender share of housework might affect fertility decisions in Australia. They discover that is not father's time spent in doing housework nor the relative share that

affect fertility decisions, but the amount of hours women dedicate to housework that is negatively related with fertility choices.

These policies have consequences also on the labour market structure, segmenting and gendering the career trajectories: long working full-time hours for men and childless women, part-time employment or inactivity for working mothers. In fact, the Family Tax Benefits make more convenient to increase the amount of working hours of the breadwinner and to keep the primary carer out of the labour market (Cass, 2002; McDonald 2001). As a consequence, this benefits structure penalizes families where both the partners are attached to labour force participation and to the gender equal sharing of family and work commitment (Apps, 2004). On the same line goes the refuse of the liberal-conservative Australian government to provide paid universal parental leaves (in both senses of maternity and paternity leaves). Analysing data from the 2005 *The Parental Leave in Australia Survey*, it has been found that 35-40% of employed women in Australia took some parental leave after childbirth and half of them got unpaid leave. Among the “lucky” mothers with paid parental leave, most of them are managers and professionals, and most of them obtain a very short period of paid leave (Baird, Brennan and Cutcher, 2002; Brennan, 2007). For women taking paid maternity leave in the private sector, on average it is for less than 3 months, taking the half of the full-time pay; while 57% of women taken maternity leave are in unpaid maternity leave. Close to them, a minimum of 28 per cent of mothers and 34 per cent of fathers employed before childbearing would not have had access to the basic Australian provision for parental leave (Whitehouse *et al.*, 2007). The result is that about the 25% of working mothers abandons the labour market in correspondence with the arrival of the child: among them, the 20% declares to abandon the occupation because their job was too demanding, while for the 23% an important factor is the impossibility to access to parental leave (*The Parental Leave in Australia Survey*, 2005). A contributing factor that keep mothers out of the labour market might be the high cost and the poor availability of formal childcare: it makes much more convenient (at least economically) for

women to abandon the labour market for some years, or for both parents to use more flexible arrangements in working hours.

## **1.6 Discussion**

In Australia the strong shift from the *pre* and *post* experience of being parent, especially for mothers, creates “institutional incoherence” in terms of perceived gender equity in the individual oriented institutions and gender inequity in the family oriented institutions (McDonald, 2000): that might impact on (at least) women’s fertility decisions, as argued by authors such as McDonald (2000 and 2013), Dempsey (1997), Baxter (2000) or Craig and Siminski (2010). The lack of policies supporting family gender balance and mothers workforce attachment may lead women to rethink their preferences and priorities in terms of job and family commitment (Brennan, 2007). This seems to generate a shift from an egalitarian to a traditional gender balance exactly during the transition to parenthood, maybe one of the most awkward events for individual and family’s choices. As a consequence, these policies have been strongly criticized because of representing a step back in terms of gender equality results (Summers, 2003; Apps, 2006). Nevertheless, I show that Australia is a country with a quite high fertility rate if compared to other OECD countries, that did not experience a decline of fertility in the last 30 years. McDonald and Moyle (2010) argue that the high fertility rate among the English-speaking countries is mainly due by the widespread value of the importance of having more than one child. This seems the reason why fertility remains high in these countries, also if the welfare state does not support equal employment opportunities for parents and non-parents. There are reasons to think that, even if up to now perceived gender inequity are not producing fertility consequences at the macro level, it might impact on the micro-consequences of the transition to the first parenthood, especially in terms of subjective wellbeing. When the reality does not match with the preferred and expected life conditions, it might reduce individuals’ subjective wellbeing in

general, increasing dissatisfaction in specific aspects of their life. If the arrival of the first child changes the conditions for a satisfactory life and generates gender inequality in the couple, first time parents might decrease their subjective wellbeing and even their relationship might be negatively affected. As a result, also the progression to higher birth orders might be compromised, at least in their timing. If couples are becoming aware of the widespread condition of gender inequality after the transition to parenthood, this might affect fertility at macro level in the near future. On the contrary, changes in the family policies, as happened between 2009 and 2011, might help to solve the problem of reconciling work and family at the micro level, reducing the impact of the transition to the first parenthood on parents' aspirations and preferred involvement family and labour market.

In the next chapters, I analyse the changes in parents' subjective wellbeing after the arrival of their first child. Descriptions and discussions made in this chapter, about the "unfriendly family policy" of the Australian context, will have a major role for understanding couples difficulties in adjusting to parenthood and their consequences in terms of relationship functioning, fertility expectations and behaviours.

# Chapter 2

## Adjustment to parenthood and partners' satisfaction with their relationship after the first child in Australia.

### Abstract

This study addresses open questions about the short-term declining trajectories of partners' satisfaction with their relationship following the birth of the first child. In particular, it focuses on the effect of reconciling family and work on the partners' relationship. Using the Household, Income and Labour Dynamics in Australia (HILDA) panel survey waves from 2001 to 2009, it analyses a representative sample of couples, followed for three years from the year of the first pregnancy. I model changes in partners' relationship satisfaction for both women and men with piecewise linear growth models. Looking at the interaction between the adjustment of the couple in the family and work dimensions, and at the difficulties caused by parenthood to women's work trajectories, I find gendered paths towards the change in relationship satisfaction: while adopting a traditional division of gender roles works in favour of fathers' maintenance of a satisfactory relationship with the partner, the same path reduces the mother's relationship satisfaction. At the same time, the couple's ability to share experiences, tasks and attitudes seems to compensate for the great differences in women's and men's chances of enjoying parenthood, a loving relationship and the labour market. In a context that especially generates gender inequality in the transition to parenthood, as the Australian pro-natalist policy system seemed to do before its 2009 reform, these results posit questions for policymakers.

Keywords: partner satisfaction, work adjustment, family adjustment, parenthood, unexpected difficulties

## 2.1. Introduction

This study aims to contribute to the literature on the functioning of relationships over the transition to parenthood, and in particular on the effect of the first childbirth on parents' marital adjustment in the short run. More specifically, the paper aims to address the question of whether the short-term effect of the arrival of the first child on marital adjustment mirrors reconciliation in family and work adjustment to parenthood. The analyses are conducted on a sample of Australian couples, followed for three years from the year of the first pregnancy, using data from the Household Income and Labour Dynamics in Australia panel survey (waves from 2001 to 2009). Using longitudinal analysis, we find evidence for the existence of a relationship between the processes of adjustment to parenthood in the work and family dimensions and changes in marital adjustment in the short run after the arrival of the first child. The literature suggests that new parents' subjective wellbeing changes before and after the transition to first parenthood (Pollman-Schult, 2014; Margolis and Myrskylä, 2011; 2014; Frijters *et al.*, 2011). The joyful wait for the child's arrival might sometimes make parents over-optimistic in their expectations about their future life with the child. After the arrival of the child, parents have to adjust their commitments to work and family tasks and this may produce difficulties, increase conflicts in the couple, and reduce marital satisfaction (Twenge *et al.* 2003; Doss *et al.* 2009; Keizer, 2013). This study specifically addresses the question of which factors decrease marital adjustment to the arrival of the first child, assessing the role of several psychological mechanisms (e.g. adjustment to parenthood in the family and in work, anticipation of enjoyment of parenthood) and protective factors (e.g. education, personality traits) in a context of gender inequality, as Australia was in that period. In fact, from the 1990s to 2009 Australian policies to sustain fertility were mainly based on promoting the traditional division of gender roles after the transition to parenthood and, as a consequence, can be supposed to have induced gender inequality (Summers, 2003; Apps, 2006).

The study is particularly relevant in that it suggests possible interpretations of the micro-level mechanisms that might exist behind the perspective of the “incomplete female revolution” identified by Esping-Andersen (2009) and micro-macro institutional incoherence (McDonald, 2000; 2013). The great tension related to the difficulty in reconciling parents’ (and in particular mothers’) investments in both parenthood and career is still unsolved in most Western societies. Most of the approaches at the macro level look at the correspondence between policies and preferences to attempt to understand the difficult trade-off between family and work commitments. Where policies do not fully support individual preferences, they seem to affect the functioning of the family, i.e. by either delaying parenthood and subordinating fertility preferences to careers or vice versa. This seems to be the main consequence of what Esping-Andersen (2009) calls the “incomplete female revolution”: when new roles for women in education, the family and the labour market are not addressed by supportive changes in the welfare state, new inequalities appear, particularly related to income distribution and educational outcomes, but also in terms of opportunities to realize fertility desires. This perspective matches well with the incompatibility between individual-oriented institutions and family-oriented ones suggested by gender equity theory: countries where policies support gender equity<sup>1</sup> in both individual and family institutions (allowing the combining of work and family preferences) have higher fertility levels (McDonald, 2000; 2006). Even though gender equity theory interprets low fertility in a cross-cultural perspective, as a result of the widespread perception of unfairness in the institutional-gender context (McDonald, 2013), the psychological consequences for individuals having difficulties in achieving their aspirations is a micro-level phenomenon. This study aims to “make the jump” from the macro to the micro perspective, focusing on the psychological mechanisms that might exist behind

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<sup>1</sup> “Gender equity is about perceptions of fairness and opportunity rather than strict equality of outcome” (McDonald, 2013).

the “incomplete revolution” and the “institutional incoherence”. I aim to underline that, even though in Australia we cannot speak of “low fertility”<sup>2</sup> in recent female cohorts (Myrskylä et al., 2013), with the absence of policy support for a simultaneous commitment to family and work, the arrival of a first child might reduce mothers’ and fathers’ possibilities of enjoying their preferred involvement in both the family and the labour market. For this reason, I expect to find that the transition to parenthood in this period would negatively affect relationship satisfaction, especially in dual-earner couples, in which the work-family adjustment process might involve more gender inequity, unbalanced renunciations and marital conflicts. In particular, I expect that double-career mothers – women involved both in mothering and a work career – would particularly reduce the marital adjustment of fathers. I also control for the fact that some characteristics of the couple may be protective of high marital satisfaction, overcoming the frustration caused by unequal and perceived as unfair gender opportunities offered by the context; in particular, high educational homogamy in the couple, which is usually associated with less specialization by the partners (Esping-Andersen & Bonke, 2011), and some intrapersonal characteristics – i.e. personality traits – which make partners more cooperative.

The paper is structured as follows: first, I examine the broad existent literature with its main findings and limitations; then I describe our sample and define our indicators. Finally, I present and discuss our longitudinal analysis of changes in partner satisfaction, for both women and men. Applying a longitudinal approach to couples allows me to overcome problems of endogeneity and partially of reverse causality.

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<sup>2</sup> Over the last 40 years the time-adjusted TFR is more than 1.9.



## **2.2. Background**

Becoming a parent for the first time is an emotionally intensive event which is not without difficulties: the steep learning curve in caring for an infant, the continuous demand for such care, sleepless nights, and a simultaneous abrupt reorganization of daily routines both in the family and work spheres can stress a couple's relationship. Overall, what is the net effect of having a first child on a couple's relationship? The literature documents that parenthood appears to have negative effects on the relationship between partners, at least during the first year of life of the child.

### **2.2.1 Marital adjustment declines after the first child.**

“Marital adjustment” is the couple's problem-solving ability, the capacity to communicate and share activities usually associated with a feeling of satisfaction with the relationship (Locke and Wallace, 1959). For this reason, according to Karney and Bradbury (1995), marital adjustment and satisfaction with the partner relationship can be used interchangeably. “Satisfaction with the partner relationship” is particularly derived from a cognitive dynamic evaluation of the quality of a couple's relationship, which for this reason differs from the concept of “happiness,” which is more emotionally driven (Campbell, Converse, and Rodgers 1976).

Most marital adjustment studies that focus on the negative consequences of becoming parents on the couple's relationship highlight the short-term relevance of the relation. The early literature on the topic insists that the arrival of the first child mainly represents a partially unexpected break in a couple's equilibrium. Some scholars (Dyer, 1963; Hill, 1949) refer to this first period as a “crisis”, generating academic debate. Recent studies do not find strong empirical support for the crisis hypothesis, and most researchers now prefer the terms “stressful experience” or “loss of partner satisfaction” (Belsky & Rovine, 1990; Cowan et al., 1985; Evanson and Simon, 2005; Hobbs & Cole, 1976; Kalmuss et al., 1992;

Russell, 1974). Focusing on the short term effect – i.e. during the first year of life of the child – some find a negative association between childbearing and the couple's relationship, decreasing satisfaction with the relationship (Belsky et al., 1998, Cowan et al., 1985; Feldman et al., 1984; Moss et al., 1986; Shapiro et al., 2000; Twenge et al. 2003; Doss et al. 2009; Keizer et al. 2013) and increasing conflicts (Nomaguchi and Milkie, 2003). These changes in relationship satisfaction also seem to depend on gender (O'Brien and Peyton, 2002): mothers usually experience a sudden decrease compared to fathers, who tend to show a more gradual loss of satisfaction with the relationship (Belsky and Hsieh, 1998; Grote and Clark, 2001; Doss, 2009).

Nevertheless, other studies reveal positive long-term effects of childbearing on marital stability. In particular, they find that in the early years of the life of the child, some conflict may be useful in facilitating adjustment to parenthood and allowing partners to negotiate a long-term balance and develop a newly satisfying relationship (Cox et al., 1999; Katz, Wilson & Gottman, 1999), while other couples never recover their equilibrium after childbirth (Moss *et al.*, 1986).

### **2.2.2 Work-family adjustment and relationship satisfaction.**

Balancing work and family commitments after the transition to parenthood is one of the biggest issues for new parents, and especially for new mothers. Moreover, the process of adjustment to parenthood might be compromised by the unpredicted consequences of becoming parents. Here, we report the main findings in the literature on unexpected difficulties and work/family-related adjustment to parenthood and their effect on the couple's relationship satisfaction.

#### *2.2.2.1 Family and work adjustment to parenthood.*

On the family side, the arrival of a child increases the amount of time allocated to family tasks. How partners decide to share the increased load of domestic work is

relevant for understanding changes in marital adjustment. Some studies show that perceiving one's share of childcare, housework and leisure time to be unfair compared with the partner's appears to be a source of marital dissatisfaction (Kalmuss *et al.* 1992; Ruble *et al.* 1988; Wiki, 1999). Some of the causes of decline in relationship satisfaction after the first childbirth are more difficulty in reconciling work and life (Gallie and Russel, 2008), less time for the spouse (Claxton and Perry-Jenkins, 2008) and higher levels of pressure due to time constraints (Mattingly and Sayer, 2006). However, there is evidence that inequalities influence the marital adjustment of new parents differently. In their study of 197 couples, Kandel *et al.* (1985) find that US mothers tend to perceive more conflict and experience more depression, worry and stress than fathers.

The other side of the coin is represented by work-related adjustment to parenthood. Job satisfaction and employment conditions impact on satisfaction with the partner (Ridley 1973 and Rode *et al.* 2007). In particular, Benin and Nienstedt (1985) find that for dual-earner couples in the US job satisfaction and positive working conditions can increase marital quality. In these couples, where women have double commitments to both the family and the labour market, adapting work and family situations is necessary to achieve a satisfactory quality of life for both partners. We can also interpret in a similar vein results from other studies where authors find that couples that adjust their work situations to their family roles suffer less work-associated stress (Haddock *et al.*, 2006; Rogers, 1996) and gain higher levels of marital satisfaction (Benin & Nienstedt, 1985; Roger & May, 2003).

There is no doubt that women often have more difficulty reconciling themselves after parenthood than men. This is particularly true in countries that lack policies that help working parents to balance family and labour work: working mothers experience a disadvantage since traditional gendered roles give them a disproportionate burden of parental tasks and responsibilities. Comparing mothers staying in or leaving the labour market during the transition to

motherhood, Callan (1985) and Hoffenaar *et al.* (2010) find that women leaving the labour market on the arrival of a child experience less marital satisfaction both in Australia and the Netherlands. Studies focusing on outcomes for men find that fathers whose wives are employed experience more worries and conflict than fathers whose wives are not. This suggests that employment of the mother may negatively influence men's marital adjustment (Campione, 2008; Wiki, 1999). Similar results are also found by Keizer *et al.* (2010) studying a representative sample of women and men using data from the Netherlands Kinship Panel Study.

#### 2.2.2.2 *Unmet expectations.*

Other studies link changes in marital satisfaction to how parents experience the difficulties of parenthood, and in particular how these match prior expectations. Some of these studies have been limited to samples of women. When parenting is more difficult than expected, women's overall evaluation of their marriage decreases: feelings of love and partner satisfaction decrease, while the perception and experience of conflict increase (Belsky, 1988; Belsky *et al.*, 1990). The effects of unmet expectations on postpartum life are strongest during the first year of the child's life (Belsky, 1985) because of the combination of recent optimistic prenatal expectations with the intensity of parenting an infant.

Studies of couples provide a broader perspective: couples perceive the transition to parenthood to be easy when the expectations of the partners match the actual experience well. Unmet expectations regarding the gender division of domestic labour and childcare are among the primary sources of conflict in couples in their transition to parenthood (MacDermid *et al.*, 1990; Mencarini & Sironi 2012; Ruble *et al.*, 1998). How unmet expectations are related to partner satisfaction depends on the type of expectations (Lawrence, 2007). As an example, for women, unmet expectations about the partner's share of childcare and the level of family support for the woman's career make the period of parental adjustment more difficult (Kalmuss *et al.*, 1992). As far as we know from the literature, there is no evidence of an effect of unmet expectations on marital adjustment for men.

### **2.2.3. The Australian Context**

Australia represents an interesting case for studying the effects of childbearing on the relationship adjustment of new parents. A lack of policies for working parents – at least until 2009, when universal paid parental leave was introduced into family legislation – gave *de facto* support to a traditional gender division of roles until very recently. Before 2009, Australia provided neither universal subsidised childcare nor income support during parental leave. Although the government developed economic benefits to support fertility in 1996, these were mainly directed at single-income families (Craig & Siminski, 2010). Generous tax benefits are only available to couples in which one parent stays out of the labour market to take care of the children. Overall, these strong disincentives to maternal employment lead to single-income families with children (the breadwinner model) receiving most of the economic benefits of the family policies system (McDonald, 2000). The lack of paid parental leave inhibits women's participation in the labour market after the transition to motherhood, at least during the first year of the child's life. Even if protected unpaid parental leave is guaranteed, paid leave depends on private individual negotiations with the employer. In 2005, about a quarter of working mothers abandoned the labour market at their first childbirth. Half of these women had previously worked full-time in the private sector. For those with paid maternity leave in this sector, it was on half pay and lasted less than 3 months on average. Of all women taking maternity leave, 57% were unpaid (Parental Leave in Australia Survey data, 2005).

However, the consequences of parenthood are not limited to the labour market. Craig, Mullan and Blaxland (2010) emphasize that inadequate family policies lead to a pattern of very traditional and gendered roles after having the first child, which is less the case where family policies are stronger. Other authors also argue that this regression into traditionalism is especially unexpected by women (Baxter, 2000; Craig & Siminski, 2010; Dempsey, 1997). Overall, the adjustment

to parenthood may be particularly difficult because of its unexpected consequences, and a lack of state support for the work of both parents and their new family.

### **2.3. Hypotheses**

The literature leads us to derive some hypotheses on the transition to parenthood and marital adjustment. The arrival of the first child entails processes of anticipation and adjustment to parenthood. First of all, anticipating the difficulties and the commitments that the arrival of a child can bring allows individuals to maintain relationship satisfaction. On the other hand, I can also imagine that those who did not anticipate but then experience the difficult consequences linked to the transition to parenthood may perceive lower relationship satisfaction. We expect that *(H1) individuals who have not accurately anticipated the difficult consequences of parenthood will experience stronger decreases in satisfaction with the relationship with the partner*. If parenthood marks a general but unexpected regression into traditional gender roles that differentially impacts women (especially those staying employed after childbirth), I expect that this will disproportionately affect women.

Regarding the adjustment process, even if parenthood represents a source of joy, the difficulties in adjusting to it can be sources of frustration and worry. In particular, the arrival of the first child obliges partners to adjust to their new role of parents and allocate time and responsibilities differently, including work outside the home. This process can be complicated, especially if the macro-context does not support a dual commitment by parents to both the family and the labour market. As a result, I expect that *(H2) individuals who experience greater difficulties in the family or work dimension of the transition to parenthood will experience greater drops in partner satisfaction*. In the case of Australia, I expect that couples where the woman does not abandon the labour

market after the transition to parenthood will experience more difficulties both at work and in the family, and as a consequence this will have a stronger negative effect on her relationship satisfaction.

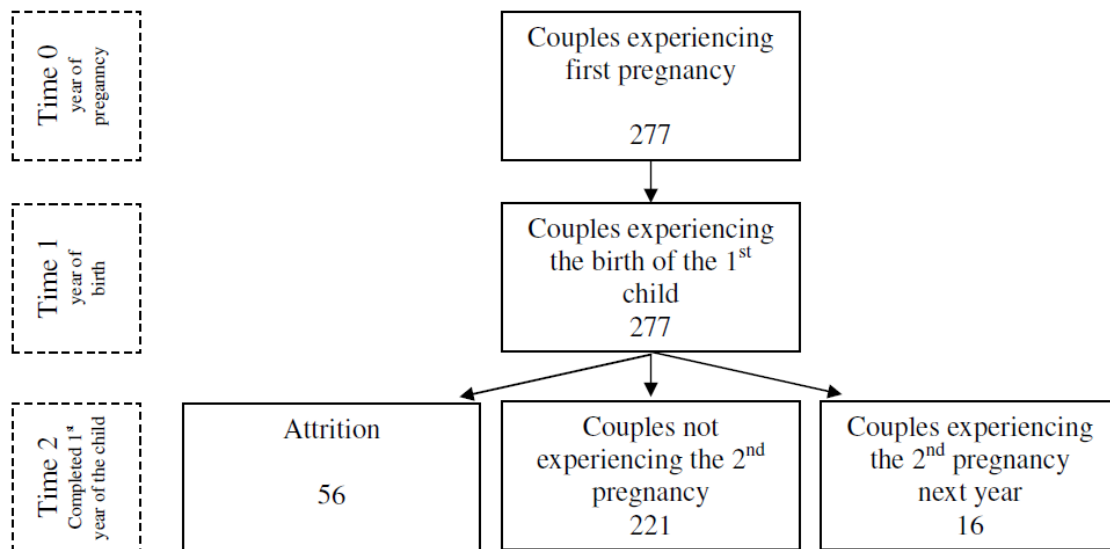
## 2.4. Data & Method

### 2.4.1 Data and sample.

I use the first 9 waves of the Household, Income and Labour Dynamics in Australia (HILDA) panel survey, which cover the years from 2001 to 2009. I select this time frame in order to avoid the effects of family policy reforms (2009) and the global economic crisis. I include only the couples (married or cohabitating) of first-time parents for which there is complete information about partner satisfaction for the years prior to and of the birth of their first child, and about personality traits (surveyed only in wave 5 and 9). Couples are eliminated once the woman turns 46 years old. Couples where either one or both parents or the baby suffer from serious health problems are excluded from the sample. Couples enter the sample in the year of the pregnancy of the first child (277 couples). Couples are right-censored for three reasons: a second pregnancy; attrition; and the end of the study. For each couple, a time variable counts the number of years from the year of the first pregnancy ( $time=0$ ). In Figure 2.1 we can see how at  $time=1$  (year of the birth), all 277 couples already have their first child but less than a year has passed since childbirth. 221 couples who experience their child's first birthday are present at  $time=2$ . At this time, 40 couples exit the analysis due to study attrition (15% of the total original sample), and 16 due to a second pregnancy (6%). For each couple, we consider only the year of first childbirth, the year before and the year after for two reasons: (a) our focus is on the short-term effects of childbirth on marital adjustment (how couples adjust to the "shock"); (b) during the second year after the first childbirth, the criteria of a second pregnancy and sample attrition would lead to

the loss of an additional 109 couples, 61 and 48 respectively, substantially reducing the sample size and adding bias into the overall sample.

**Figure 2.1. Couples experiencing pregnancy leading to the birth of the first child**



## 2.4.2 Dependent variable and main covariates

### *Satisfaction with the relationship with the partner: the dependent variable*

HILDA offers continuous information on satisfaction with the relationship with the partner. An individual’s position on the HILDA indicator for satisfaction with the relationship with the partner is collected annually by means of the question “How satisfied are you with your relationship with your partner?”, where responses ranged from 0 (*completely unsatisfied*) to 10 (*completely satisfied*).

### *Unexpected difficulties in parenthood.*

The indicator I use for unmatched expectations is one of the general indicators of unconfirmed expectation regarding parenthood (Kalmuss et al., 1992). Specifically, in the HILDA questionnaire it corresponds to the degree of agreement with the sentence “Being a parent is harder than I thought”. The



answers are on a scale from 1 (*completely disagree*) to 7 (*completely agree*). Values for this variable are collected annually for both parents from the birth of the child. I also include four categories of combinations of unexpected difficulties for the two partners: both parents experience unexpected difficulties; only she/he experiences unexpected difficulties; neither partner experiences unexpected difficulties.

*Family and work reconciliation.*

I select two indicators for work adjustment and three for family adjustment. HILDA provides specific questions to collect information each year about the consequences of having children in both the family and work dimensions. In Table 2.1, we report the sentences with which individuals have to declare their level of agreement.

**Table 2.2. Variables for adjustment to parenthood in the work and family spheres.**

Variable	Scale
Time at work is less enjoyable	(1 = <i>strongly disagree</i> ; 7 = <i>strongly agree</i> )
I have to turn down some work opportunities	(1 = <i>strongly disagree</i> ; 7 = <i>strongly agree</i> )
Family time is less enjoyable	(1 = <i>strongly disagree</i> ; 7 = <i>strongly agree</i> )
I do more than my fair share of childcare	(1 = <i>I do much more than my fair share</i> ; 5 = <i>I do far less than my fair share</i> )
I do more than my fair share of housework	(1 = <i>I do much more than my fair share</i> ; 5 = <i>I do far less than my fair share</i> )

I also control for *satisfaction with flexibility to balance work and non-work commitments*. Especially for working mothers, this might be an important indicator of an easy reconciliation of work and family commitments. The variable is scaled from 0 (totally dissatisfied) to 10 (totally satisfied).

*Control variables.*

In addition to the covariates of main interest, I include a set of controls. Among them, it is important to mention the inclusion of *personality traits*. The main literature on the relationship between personality and subjective wellbeing reveals that personality traits are among the important determinants of life-satisfaction trajectories over the life course (Lavner and Bradbury, 2010; Heady, 2006). The relevance of considering personality traits as controls derives from the fact that they account for genetic influence on individuals' perceptions of life events and their emotional reactions (Soons and Liefbroer, 2009; Headey, 2006). In other words, changes, and their intensity, in the individual's subjective wellbeing might be partially explained by personality. The interaction between personality and life events does not exclude the possibility of reverse causality, where life satisfaction could also affect stable personality and life choices. Nevertheless, it has been shown that personality traits tend to remain stable in the short term, and to only change gradually along the life course, in particular between youth and adulthood and between adulthood and old age (Costa & McCrae, 1992). Controlling for intrapersonal characteristics is possible with HILDA using the 36-item questionnaire in waves 5 and 9 based on the Big Five Factors Model. The Big Five Factors Model is a very popular personality model and allows researchers to measure different personality traits without overlaps among the measures (McCrae, 1991; McCrae & Costa, 1999; Montag & Levine, 1994). The main limit is that the five personality traits identified by the model (Conscientiousness, Agreeableness, Emotional Stability, Extraversion, Openness) are empirical concepts, as the model has no theoretical framework to support the interpretation of these traits (Bouchard et al., 1999; McCrae, 1991). The HILDA approach to measuring personality traits is through trait-descriptive adjectives (Saucier, 1994; Goldberg, 1992). Factor analysis supports the five-factor structure of the items, and each scale shows "an adequate degree of internal consistency, good variance and discriminating properties, and normal distributions" (Losoncz, 2009). For this reason, I decided to work with the

derived indexes for each factor already provided by the official dataset. Each factor scores on a continuum from 1 to 7, where a higher score means the trait is more relevant in describing the individual's personality. Following the main literature on personality traits, I consider them to be time-independent.

In addition, I control for individuals' ages and *couples' educational homogamy*, including dummy variables for whether both partners had tertiary education, both had secondary/primary education, she had a higher education level than him, and he had a higher education level than her. Together with personality traits, educational homogamy might be an indicator of the presence of a protective condition in the couple: being cooperative by nature and less exposed to stressful situations, as sharing gender egalitarian attitudes might help couples to adjust to parenthood and, as a consequence, to maintain a satisfactory relationship.

To capture important couple characteristics, other control variables have been included at both the individual and couple levels.<sup>3</sup> All these variables are considered time-dependent. Starting with the *employment situation*, we consider unemployment and inactivity together, due to the favourable condition of the Australian labour market during the period under study, where the unemployment rate was very low (in 2005 the total unemployment rate in Australia was around 5% for both men and women. Source: Australian Bureau of Statistics). For women, we construct a variable describing the *employment/inactive trajectory* from pregnancy onwards. The variable is constructed by combining occupational status in the year of pregnancy and in the year of the birth, with occupational status in the year of the pregnancy and in the year of the child's first birthday. The idea is to see whether the changed occupational status at time 1 is temporary or not. In the year of pregnancy, we simply consider the woman's actual occupational status.

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<sup>3</sup> The sample distribution around these variables is reported in the Appendix: Table 1A.

### 2.4.3 Longitudinal analysis: piecewise growth models.

I model marital adjustment separately for women and men using piecewise linear growth models<sup>4</sup> (Singer & Willett, 2003, 45-242). Growth models are multilevel models for change that allow a description of how a specific dependent variable changes over time for a person (Level 1, fixed effects) and relate individual differences to changes in certain predictors (Level 2, random effects). In order to decide the shape of the function, I test both linear and quadratic functions. While I find consistent results supporting a piecewise linear relation, there is no support for a quadratic function. Accordingly, I have reason to believe that the change function (Level 1) is not continuous, and that the slope of partner satisfaction might change with time. In particular, I need the flexibility to be able to model each time period using possibly different explanatory variables. As a result, I introduce three time variables that specify points of discontinuity in our model: the year of pregnancy with the first child (*preg*), the year of the first birth (*birth*), and the year of the child's first birthday (*first*). Random factors for time periods allow the function for individuals to differ from the average of the population change trajectory. The unconditional growth model is shaped accordingly:

$$SRP_{ij} = \pi_{1i} \text{preg}_{ij} + \pi_{2i} \text{birth}_{ij} + \pi_{3i} \text{first}_{ij} + \varepsilon_{ij} \text{ with } \pi_{ni} = \gamma_{n0} + \xi_{ni},$$

under the condition of a normal distribution of residuals. Other variables are gradually included in the model at Level 1. To accommodate the fact that some factors play roles in determining satisfaction with the partner relationship at certain time points and not at others, I operationalize these variables into different variables which are distinguished by the time in which they appear. When these variables do not influence the dependent variable (e.g. the covariates for adjustment to parenthood in the work sphere cannot affect satisfaction with the partner relationship in the year of pregnancy), they take the constant value 0.

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<sup>4</sup> Implemented with Stata package xtmixed.

The final model is shaped as:

$$SRP_{ij} = X_{ij}\beta + \pi_{1i} \text{preg}_{ij} + \pi_{2i} \text{birth}_{ij} + \pi_{3i} \text{first}_{ij} + \pi_{4i} \text{second}_{ij} + Z_{it_i}\lambda + \varepsilon_{ij},$$

where  $Z_{it_i}$  is the vector of time-dependent covariates,  $t_i$  is the time variable with values from 0 to 2 according to the time period, and  $X_{ij}$  are time-independent covariates. Nested models are run separately for women and men, and we gradually include the main covariates. A separate model for working women and men is also run.

## 2.5. Results

The growth models at least partially confirm the hypotheses, with some gender differences. At first glance, for both women and men, satisfaction with the relationship with the partner appears to decrease over time (Table 2.2), with an early larger drop for mothers.

**Table 2.3. Piecewise linear growth models for relationship satisfaction with only time variables, for women and men (Couples with the first child born between 2001-2009).**

	<i>Women</i>	<i>Men</i>
Birth year	-0.51***	-0.30***
First year	-0.76***	-0.56***
cons.	9.13***	9.01***

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$

Note: N=763

The results from the models in Table 2.3 and Table 2.4 also confirm that (H2) difficulties in the adjustment to parenthood in both the family and work spheres negatively affect marital satisfaction. Furthermore, (H1) unexpected difficulties in parenthood have a negative impact on men's marital adjustment, while discrepancies in the couple about the unexpected hardness of parenthood decrease women's satisfaction with the partner relationship. Moreover, in

accordance with the literature, I find that women's employment trajectories affect mothers and fathers differently: in particular, exiting the labour market after the arrival of the child increases men's relationship satisfaction while it decreases women's marital adjustment. Finally, some couple characteristics (e.g. education homogamy) also determine the way individuals experience the transition to parenthood in terms of marital adjustment.

First of all, I test whether different work transitions for mothers around the arrival of the first child might be associated with specific trends in marital adjustment (see Table 2.3). It is interesting to note that, for both women and men, the mother's trajectory from being employed during the pregnancy to being inactive in the year of the birth of the child is positively and significantly (almost significantly for women:  $p\text{-value}=0.09$ ) related to marital adjustment. This could mean that during the birth year women keeping time to be more dedicated to the household is something that reduces stress in the couple. Nonetheless, at the first year of life of the child we find different results for mothers and fathers. In fact, only men's satisfaction with the partner increases when the woman stays/becomes inactive in the first year of life of the child. For women, the same path shows a negative (although not fully significant) association with relationship satisfaction. This discrepancy might be the first source of conflict and dissatisfaction in the couple's relationship. Moreover, the result suggests that a traditional division of gender roles after the transition to parenthood reduces the reasons for dissatisfaction with the partner for men, but it might not be a solution for women.

**Table 2.4. Piecewise linear growth models for relationship satisfaction according to women's employment trajectories, without control variables: reference category is women staying employed (couples with the first child born in 2001-2009).**

	<i>Women</i>	<i>Men</i>
Inactive (pregnancy year)	-0.16	-0.07
Employed (pregnancy year) – inactive (birth year)	0.24	0.23*
Inactive (pregnancy year) – employed (birth year)	-0.35	-0.41
Inactive (pregnancy year) – inactive (birth year)	-0.17	0.31
Employed (pregnancy year) – inactive (first year)	-0.10	0.46**
Inactive (pregnancy year) – employed (first year)	0.39	0.29
Inactive (pregnancy year ) – inactive (first year)	0.03	0.29
cons.	9.13***	9.01***

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$       Note: N=763

In the further developments of the model, I gradually include variables related to the experience of unexpected difficulties in parenthood (Table 2.4: Unexpected difficulties) and the family-related adjustment covariates (Table 2.4: Family adjustment).<sup>5</sup> In the last model, the effect of work- and family-related adjustment is tested for dual-earner couples (Table 4: Work adjustment). When the main independent variables are included, the effect of time on marital adjustment become positive but in most cases non-significant.

In the “Unexpected difficulties” model (Table 2.4), the effect of unexpected difficulties in parenting on marital adjustment differs by gender. Having poorly anticipated the difficulties of parenthood does not seem to affect women’s partner satisfaction, while it does significantly decrease that of men in the year of birth and even more so the following year. For women, the loss of satisfaction is related more to the lack of balance between how partners perceive unexpected difficulties, where the male partner in particular finds unexpected difficulties. Here, marital adjustment declines perhaps due to increased conflict or misunderstanding.

The experiences of women and men also seem to be very different when I consider family adjustment (see again Table 2.4). As expected, women who

<sup>5</sup> These models are also run without controlling for the unexpected difficulties covariates: the coefficients and their significance did not change enough for them to be considered to have interesting effects.

judge that they do an unfair share of childcare experience reduced relationship satisfaction from the year of childbirth onwards. Unexpectedly, the negative effect for men of difficult family adjustment comes the year after childbirth, and only when they judge they do more than their fair share of housework. The delay in the effect for men is likely to be due to mothers taking primary responsibility for childcare (e.g. for feeding) during the first year; this probably releases fathers from most parenthood-related stress. If I exclude the unexpected difficulties indicators, the coefficients for family adjustment do not change. This means that the family adjustment effect is not confounded by the fact that difficulties were unexpected.

The last model (Table 2.4 Work Adjustment), considering only dual-earner couples,<sup>6</sup> introduces a variety of work adjustment controls, plus the “availability of support” indicator and that of satisfaction with flexibility in the work-family balance, which helps to account for how easily working parents adjust their multiple commitments after the arrival of the child. It should be noted that as this model covers a different sample the results cannot be compared with the coefficients from the previous models. Women employed during the transition to parenthood might have different characteristics (i.e. more “career oriented”, low income, etc.) to those abandoning the labour market in the year of the birth of the child, and/or staying inactive in the year of the first birthday. In dual-earner couples, the woman’s relationship satisfaction seems to only be affected by the fact that time spent at work is less enjoyable since the arrival of the child. For the man, foregoing career opportunities as a consequence of new parental responsibilities seems to be the primary factor reducing satisfaction with the relationship with his partner. In both cases, the availability of support in the household helps working parents to maintain a good trend in marital satisfaction.

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<sup>6</sup> We develop models for “Unexpected difficulties” and “Family Adjustment” for dual-earner couples too, but the results in terms of coefficients and significance are the same. One exception is in the model “Family Adjustment”: for mothers in dual-earner couples there are not significant coefficients on the family adjustment variables, while only high education homogamy variables come out positive and significant for women’s marital adjustment. This might underline how gender egalitarian attitudes in dual-earner couples allow to overcome conflicts in sharing household chores.



It is interesting to note that satisfaction with the flexibility to balance family and work commitments is not significant. This may be due to the fact that, according to Australian national statistics, part-time employment is widespread among working mothers, giving more flexibility in family-work reconciliation.

Even more interesting is the reciprocal influence of the processes of adjustment to parenthood of the two partners. As previously found in Table 2.3, the relevant role of the mother's employment trajectory is also confirmed in Table 2.4: if the mother becomes and stays inactive after the arrival of the child it seems to increase the father's probability of gaining in terms of marital satisfaction. The persistence of the finding suggests an interesting result: marital adjustment is easier for men in couples adopting the traditional division of gender roles. Some of this effect is derived from needs of the partners to specialize, while another part remains when controlling for adjustment to parenthood. This might suggest that the relation between traditional gender roles and the couple's wellbeing (especially for men) is, at least in part, culturally driven. In terms of the couple's well-being, these results are particularly strong for women who stay out of the labour market for more than one year. In fact, this path is associated with a (albeit not statistically significant) decrease in women's satisfaction with the partner relationship. The fact that the path is not significant could depend on the presence of a mixed group of women in this work trajectory. We might find extremely family-oriented women enjoying being totally dedicated to household tasks, and women staying at home because e.g. they cannot afford childcare costs losing the satisfaction they would derive from self realization in their job.

Additional results come from education homogamy and personality traits. Previous studies have found that highly educationally homogamous couples are more able to establish a satisfactory gender balance due to more gender egalitarian attitudes and less partner specialization (Esping Andersen & Bonke, 2011). Our results show a positive effect of high educational homogamy on marital adjustment especially in the sample of dual-earner couples (see Table 2.3) and for women. This might suggest that, in a context where a traditional

gender division of roles is the typical path for couples after making the transition to parenthood, the ability of highly educationally homogamous couples to find a satisfactory gender balance is an important source of relationship satisfaction for women. In other words, women in highly educationally homogamous couples might feel particularly satisfied with their partner, especially when they compare themselves with the more common unbalanced gender situation in other couples.

Looking at the results for personality traits, two traits in particular are always positively related to marital adjustment: Agreeableness for men and Emotional Stability for women. Agreeableness is related to the propensity to be cooperative and altruistic, while Emotional Stability is related to self confidence and the tendency to experience pleasant emotions (Bouchard et al., 1999; McCrae, 1991). The first trait might be associated with a propensity for the man to participate in household tasks and be supportive of his partner. This is particularly helpful in a context where a traditional division of gender roles is institutionalized. On the women's side, Emotional Stability can help new mothers to face the difficult and sometimes stressful period of the early care of the child, when most of the household responsibilities lie on their shoulders.

**Table 2.5. Piecewise linear growth models of relationship satisfaction, for women and men (couples with a first child born in 2001-2009).**

	Unexpected Difficulties <sup>a</sup>		Family Adjustment <sup>a</sup>		Work Adjustment <sup>b</sup>	
	Women	Men	Women	Men	Women	Men
Birth year	-0.42	0.44	0.77	0.59	0.01	0.16
First year	-0.32	0.37	0.67**	1.16**	0.84	0.91
<i>Unexpected difficulties:</i>						
poor anticip.(birth y.)	-0.03	-0.19***	-0.01	-0.19***	0.02	-0.20***
poor anticip.(first y.)	-0.10	-0.23***	-0.07	-0.24***	-0.05	-0.23***
both poor anticip.	-0.23	0.37*	-0.28	0.41**	-0.23	0.71**
she poor anticip.	-0.39*	-0.14	-0.41	-0.14	-0.15	0.07
he poor anticip.	-0.48***	0.35	-0.49***	0.40*	-0.35	0.52
<i>Family Adjustment:</i>						
more than fair share of childcare (birth y.)			-0.25***	0.05	-0.10	0.17
more than fair share of childcare (first y.)			-0.16	0.01	-0.13	0.14
more than fair share of housework (birth y.)			-0.05	-0.03	-0.02	0.08
more than fair share of housework (first y.)			-0.19	-0.24**	-0.12	-0.31*
<i>Work Adjustment:</i>						
work less enjoyable (birth y.)					-0.03	0.04
work less enjoyable (first y.)					-0.14**	0.15*
turn down work opportunities (birth)					-0.06	-0.10
turn down work opportunities (first)					-0.01	-0.12*
Satisfaction flexibility work family balance					0.04	0.01
Satisfaction with work					-0.05	0.03
Satisfaction with free time					0.01	0.05**
helps when needed					0.13***	0.16***
<i>Personality Traits:</i>						
Extraversion	0.15*	0.09	0.14*	0.08	0.11	0.11
Agreeableness	0.04	0.24***	0.03	0.23***	0.11	0.18**
Emotional stability	0.15**	0.09	0.13**	0.08	0.15**	-0.01
Conscientiousness	0.01	-0.04	0.03	-0.03	0.09	-0.04
Openness	-0.10	-0.12*	-0.08	-0.11*	-0.02	-0.15*
<i>Control variables:</i>						
age	-0.01	-0.02	-0.11	0.01	-0.02	0.01
high educational homogamy	0.32	0.03	0.31	0.02	0.45***	0.13
she higher education	-0.20	-0.12	-0.21	-0.11	-0.37*	-0.15
he higher education	-0.45**	-0.34	-0.46***	-0.34	-0.61***	-0.57**
he employed	-0.07	0.25	-0.16	0.32		
<i>Women employment trajectory</i>						
inac(preg y.)	-0.07	-0.08	-0.13	-0.06		
empl(preg y.) – inac(birth y.)	0.24	0.32***	0.11	0.30**		
inac(preg y.) – empl(birth y.)	-0.26	-0.35	-0.07	-0.30		
inac(preg y.) – inac(birth y.)	0.12	0.21	-0.31	0.18		
empl(preg y.) – inac(first y.)	-0.10	0.46**	-0.38	0.39		
inac(preg y.) – empl(first y.)	0.44	0.34	0.50	0.25		
inac(preg y.) – inac(first y.)	-0.07	0.32	-0.27	0.29		
cons.	8.29***	7.40***	8.43***	7.34***	7.51***	7.11***

Note: \* =  $p \leq .5$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$

Note: <sup>a</sup> N = 763; <sup>b</sup> N=455

## **2.6. Conclusion**

Evidence from Australian panel data between 2001 and 2009 suggests that the declining trend in marital adjustment after the transition to first parenthood in the short run is related to the presence of unmet expectations of parenting and difficulties in work-family adjustment. On the one hand, at a first glance the marital adjustment of fathers seems to mirror the difficulties after the transition to parenthood more than that of mothers, which might contrast with the idea that the difficult reconciliation between family and work for mothers decreases women's relationship satisfaction more. On the other hand, in highly educationally homogamous couples sharing gender egalitarian attitudes, having a cooperative partner, being protected from the stressful consequences of childbearing, and anticipating together the difficulties that the couple might experience after the arrival of the child can help the marital adjustment of first-time mothers.

These results offer an interesting perspective on the consequences of the institutional reproduction of traditional gender roles in the Australian context. Sharing experiences and gender attitudes can be understood as a compensation for the institutionalized differences in the chances women and men have of enjoying self realization in parenthood, a loving relationship and the labour market. Compensation at the couple level in realizing individuals' work and family preferences overcomes a lack of support at the macro level, and this represents an important precondition for maintaining satisfactory functioning of the relationship. Similarly, the decline in men's marital adjustment associated with a perception of doing more for their family and less for their job after the transition to parenthood might suggest a significant persistence of the cultural dominance of traditional institutionalized gender roles.

Under this perspective, these results highlight the relevant role of family policies for supporting family formation and maintenance. It seems that more effort should be put into reducing the divergent effects that employment of the mother

has on the parents' wellbeing. At least for a group of women, self-investment in the labour market and the family are not mutually exclusive and enable the couple to experience greater satisfaction. On the contrary, the persistence of institutionalized support for the traditional division of gender roles makes the two careers unsustainable in terms of the couple's relationship satisfaction. As the literature shows, this might have serious consequences in terms of the couple's ability to solve conflicts and to realize intentions of higher fertility. According to Esping-Andersen (2009) and McDonald's (2013) findings, we expect that the persistent negative effect of adjustment to parenthood on the functioning of the relationship after the arrival of a child might be considered micro evidence of a possible macro phenomenon that leads the majority of women to perceive the high level of gender inequity in the institutional structure of Australian society. On the same lines, the significant positive effect of only some intrapersonal characteristics, which we have described as "protective" for fertility realization – such as being agreeable for fathers and emotionally stable for mothers – might mean that the chances of experiencing an easy transition to the second child are not equally spread among individuals, and this could be due to unfair institutionalized support for all couples with children. The change in family policies in 2009, with the introduction of universal paid parental leave, might reduce this tendency. If, on the contrary, the improvement in family policies is not sufficiently successful, we expect to find that Australia will be dealing with the problem of declining fertility in the near future.



# Chapter 3

## When the first baby arrives and the second loses chance. Couples' adjustment to parenthood and fertility expectations after the first child<sup>7</sup>

### Abstract

This paper explores under which conditions individuals' fertility expectations are modified by the experience of parenting after couples had the first child. We show that the expectations about having the second child are not stable after becoming a parent. The more difficult (and unforeseen) they find the adjustment to parenthood to be, the stronger is the decline of partners' expectation towards having a second child. Not surprisingly, at least in a context such the Australian one, where traditional gender roles prevail, our results suggest a different meaning of parenting for mothers and fathers. Women, overburdened by gender imbalanced childrearing responsibilities, reduce their fertility expectations mainly because of the difficulties in reconciling work and family (and the consequent increasing conflict and dissatisfaction with the partner). On the part of men, we see first increased dissatisfaction with the partner relationship and only then a decreased expectation about having another child.

The analysis is conducted on nine waves (starting from 2001) of the Household, Income and Labour Dynamics in Australia Panel Survey, applying piecewise multilevel growth models to test how fertility expectations depend on unexpected parenting difficulties after childbirth and on family satisfaction and work adjustment.

Keywords: fertility expectation; marital satisfaction; second child

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### **3.1. Introduction**

This paper explores under which conditions individual's fertility expectations are modified by the experience of the first childbearing. In particular, following Miller and Pasta Trait-Desire-Intention-Behaviour (TDIB) model (1995a, 2004) and their idea that "childbearing motivation is made one birth at a time" (Miller and Pasta, 1995b), we argue that the expectations about having the second child are not stable before and after the transition to the parenthood. While Miller and Pasta's (1995b) study assesses the effect of subsequent childbirths on parents' childbearing motivations and desires, we explore which are the changes in parents' life that might impact on their fertility expectations after the arrival of the first child. We use data from a sample of Australian couples to model the changes in parents' fertility expectation, as a result of a complex of changes in new parents' life conditions after the first childbirth.

Which are the most evident changes that the arrival of the first child leads in the life of the couple? The transition to parenthood implies a considerable dedication of time to the new arrival, but requires also a re-distribution of priorities in reconciling family and work commitment. Re-organizing one's life is not an easy task and it might be – at least temporary – a source of dissatisfaction with the way new parents' are facing the new challenges. The more difficult the adjustment process to parenthood, the less convinced become partners to have a second child in the short-run. On the contrary where couples have resources to adjust quickly, the transition to the second child can be considered more acceptable. We argue that while economic, social and psychological resources might help couples to adjust to the transition to parenthood, positive and negative feelings about their new life are important indicators of the adjustment process. For this reason, changes in subjective wellbeing are important preconditions for understanding changes in fertility expectations, and they are consequences of the couple's ability and resources to adjust to the first childbirth. Resources might be



derived from the availability of external support (e.g. relatives and/or family policies), the consistency between parents' expectations and their real life, and the individual's dispositions that allow to positively react to potentially stressful situations. While the first kind of resources depends by the context, the second and the third are more linked to individual's psychological characteristics, preferences and attitudes. Indeed, personality traits and genes have been found among the determinants of fertility motivation (Miller, 1992; Miller *et al.* 1999). For this reason, a macro-perspective on the Australian context and a micro-perspective on personality traits have been included in the analysis.

The motivation for developing this study derives from the limited attention given to the psychological mechanisms behind fertility behaviours. More specifically, scarce attention has been made to what can affect fertility expectations of the parents after the first child, as prerequisite for realizing higher parities. Another source of interest lays on the fact that even if fertility expectations are the closest indicator for childbearing, the correlation between fertility expectations and realization is not so high, due to the presence of unpredictable and unknown intervening factors – such as difficulties to get pregnant; unexpected pregnancies; unpredicted changes in situational factors (Shoen *et al.*, 1999). For these reasons, in order to understand which factors impact on couple's decision to have a/another child it is important to consider which conditions influence childbearing expectations more than childbearing itself.

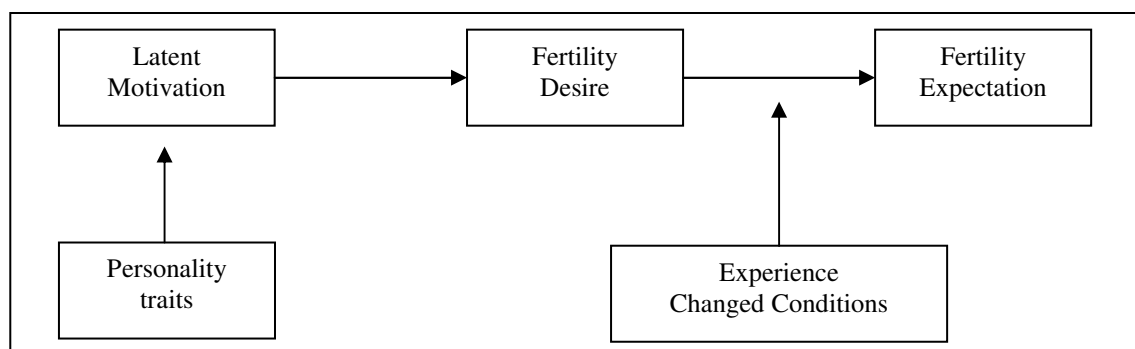
## **3.2. Transition to parenthood and changes in partners' satisfaction and fertility expectation: a review of the literature**

### **3.2.1. The psychological determinants of fertility expectation.**

Desires, intentions and expectations about fertility are the common concepts used to refer to individuals' predispositions towards childbearing. Intentions and expectations are usually interchangeable terms. Even if Miller (1992) suggests

that expectations consider also the passive role of the individual in the couple, the author uses both expectations and intentions in formulating and testing his TDIB model (Miller, 1992). On the contrary, in the TDIB model (Miller and Pasta, 1995a) the authors suggest the existence of a difference between fertility desires and intentions/expectations: in particular, desires are resulting from fertility motivation and antecedents of intentions and expectations, that for this reason are closer to fertility behaviours (see Figure 3.1).

**Figure 3.1. The relation between Motivation, Desire and Expectation according to Miller and Pasta (1995a; Miller, 2011)**



Miller and Pasta’s theory have been derived by the psychological (TPB) Theory of Planned Behaviour (Ajzen, 1985; Ajzen and Klobas, 2013). According to this theory, the actual behaviour is the result of a process that comes from beliefs, attitudes and intentions to behave. The main contribution of Miller and Pasta’s model is the application of the TPB to demographic behaviours, underling the role of the situational context in determining the timing of the relation between latent motivation, intentions and behaviour.

A more recent study by Miller (2011) tests the three-steps-motivational sequence, finding that fertility desires are intermediate between motivation evolution and intentions changes, underlining the mistake in using the two concept interchangeably. Another Australian study supports Miller’s conclusions. Gray, Evans and Reimonds (2013) find that fertility desires and expectations are

correlated, but fertility desires are often higher than fertility expectations: in particular the study reveals as fertility desires change only in the long-term, as consequences of a persistent decrease/lower level of fertility expectation. While desires are closer to the ideal situation that the individual wants to achieve (Miller and Pasta, 1995a), expectations are the individual's estimation of the likelihood to realize the fertility desires (Warshaw and Davis, 1985). In this sense, expectations are more connected with the practical evaluation of the current favourable (or not) conditions than desires. As a consequence, fertility expectations more than fertility desires are related to fertility behaviour. This also means that changes in the situational factors can positively or negatively affect fertility expectations in the short term, even without changing fertility desires and motivations (Berrington, 2004; Mitchell and Gray 2007; Hayford, 2009).

Another important contribution of the TDIB model regards the studies of the genetic determinants of the fertility motivation and behaviours. In particular, Miller (1992) and colleagues (1999; 2000) theorize and test whether personality traits in the adulthood might be fundamental prerequisite for determining fertility motivation first, and fertility intentions later. Their results support the idea that genes and personality traits (as indicators of genetic predispositions) are responsible at least in part of fertility motivation. Most of the further studies on this topic have mainly considered the link between personality, genes and fertility outcome, while less attention has been reserved to better understand the link with fertility expectations. In particular, according to the psychological theory of adaptation (Headey and Wearing, 1989) we can suppose that personality traits might be considered as responsible not only for fertility motivations, but also for understanding how individuals react to the modification of the situational conditions. In this sense they represent an important control for studying the mechanism that link the changes in the situation with the subsequent changes in fertility expectations.

### **3.2.2. The relationship between fertility expectations and subjective wellbeing.**

There are evidences that the arrival of the first child often implies changes in new parents' subjective well being (Cowan *et al.*, 1985; Belsky and Rovine, 1990; Kalmuss *et al.* 1992). In particular, "life satisfaction" more than "happiness" represents the rational cognitive evaluation of the present life condition, compared with the desired conditions of life (Campbell, Converse, and Rodgers 1976). Life satisfaction, being a multidimensional concept, derived by an overall evaluation of satisfaction within single different life spheres (satisfaction with job, with the partner, with the home in which she lives, etc.). Satisfaction with specific life dimensions has been found usually more sensible to life events respect to the satisfaction with life in general (Veenhoven, 1993; Diener *et al.*, 1999). Therefore there is more variability to be studied in the single dimension of life satisfaction than in its global assessment.

On the one hand, the transition to the first child affects parents' subjective wellbeing; on the other hand, changes in subjective wellbeing as consequence of the arrival of the child modify couple's fertility expectations. In the literature we found these represent two distinct perspectives of research. The first perspective focuses on the effect of childbearing on couple's subjective well being (Hoffenaar *et al.* 2010; Belsky and Rovine, 1990; Cowan *et al.*, 1985; Glenn and McLanahan, 1982): this will help in identify the most important dimensions of life affected by the transition to the first parenthood. The second perspective looks to the effect of couple's subjective well being on fertility (Parr, 2010; Rijken and Liefbroer, 2008; Billari, 2009; Perelli-Harris, 2006) and will allow us to understand which mechanisms are behind the relationship between changed life conditions and changed fertility expectations. We will report the main results of the two fields of research in two distinct sections.

The distribution of costs and benefits related to having offspring varies over a child's age. Focusing on the short-term effects of childbearing on new parents'

satisfaction with life, many psychological studies draw attention to the multidimensionality of the consequences: in couple's relationship (Twenge 2003; Meijer and Van den Wittenboer, 2007; Lawrence *et al.* 2007; Nomaguchi and Milkie, 2003), in family life (MacDermid *et al.* 1990; Mencarini and Sironi 2011) and work domain (Berger, 2009; Zimmermann and Easterlin, 2006; Stanca, 2009). Moreover, traditionally the attention on the stressful consequences of becoming parent has been usually concentrated on women's side, as the parent suffering more for the stressful condition after childbirth (Kandel *et al.*, 1985; Campione 2008). Nevertheless the loss of satisfaction in many dimensions of life and in particular in couple's subjective wellbeing seems to affect both new fathers and new mothers (Lawrence *et al.*, 2007; Moss *et al.* 1986).

One of the causes of loss in subjective wellbeing is related to an unexpected more negative parenting experience than the one anticipated: in this case women's satisfaction their relationship with the partner decline in the short term after the transition to the first parenthood (Belsky, Ward and Rovine 1986; Belsky, 1985). The effect of postnatal violated expectations is stronger during the first year of life of the child (Belsky, 1985), as this sense is given by the contrast with the prenatal expectations. Matching expectations regarding the gender division of domestic labour and childcare are among the primary source of dissatisfaction in the couples experiencing the transition to parenthood (Ruble *et al.* 1998).

It seems that some of the source of dissatisfaction and difficult marital adjustment after the arrival of the first child are also linked to the changes in fertility expectations. As Miller (2011) argues, "using intentions [...] one is measuring something that already reflects adjustment and compromises to what individuals would really like, changes that are a results of situational constraints and internal conflicts." (p. 93). In this sense, the changes in subjective wellbeing are indicators of part of the adjustment process to the transition to the first parenthood, that might be mirrored by the changes in fertility expectations.

Despite the relevance of such a topic, there are very few studies that analyse the link between subjective wellbeing and fertility expectations, and as far as we know no one has considered the adjustment to first parenthood. Some recent papers show how subjective well being can be a determinant of fertility expectations: Perelli-Harris (2006) shows that in Russia, subjective well being is significant and positively related to wanting and having additional children. Using the European Social Survey, Billari (2009) found that happier people are more likely to intend to have a(nother) child. Meanwhile recent analysis confirms that the additional happiness that parents anticipate from having (additional) children becomes a key driver of childbearing decisions (Billari and Kohler 2009). It has been found that its effect will depend on parity (Margolis and Myrskylä 2011), simply because those who have already had a child will learn from their experiences. For example, Newman (2008) describes examples of women and men whose positive parenting experiences had contributed to their desires to have another child, as well as others who had been deterred from doing so by negative experiences.

The fact that the experience with the first child matters on future fertility decisions has been found in the few studies on the topic. Specifically, some literature points out how the most important factors for deciding to have a second child are conditioned by the maintenance of a good level of satisfaction with the household and childcare share between the partners (Del Boca, 2002; Goldscheider *et al.*, 2008). Moreover, couples with a preference of egalitarian roles have a higher likelihood to intend to have a/another child while satisfaction with the division of household tasks has a positive effect on the intention to have another child as well (Bernardi *et al.*, 2007, Mills *et al.* 2008). The indication of what parents considered a fair share of housework and childcare is linked with what they consider right in term of gender division of labour – i.e. to gender equity (McDonald, 2013), and therefore is more important for personal satisfaction than the shared number of hours in doing gender equality of the role-set (Craig and Siminski, 2010).

The effect of work adjustment on fertility expectations involves relevant gender differences. For men it seems that there is not a relationship between job satisfaction and fertility desires, except for the negative effect of job and income uncertainty (Wicki, 1999; Kreyenfeld, 2010). On the women's side the reconciliation between work and family reduces parents' stress associated with job (Haddock *et al.*, 2006; Rogers, 1996) and favour the transition to higher fertility especially for highly educated women (Baxter, 2013). Nevertheless we did not find specific studies on work adjustment after the transition to parenthood and its effects on fertility expectations.

### **3.2.3. The Australian context**

The context in which couple lives can be relevant for the adjustment to the transition to the first parenthood, influencing subsequent couple's fertility plans. The Australian case seems to be particularly interesting for the aim of our study. Even if among Western countries the Australian fertility rate is quite high (but under the replacement level), the absence of adequate family policies to sustain mothers employment has been cause of gender inequity (McDonald, 2000) that become more evident after the first childbirth.

Similarly to other Western countries, since the 70s Australia experienced a strong increase of the female employment rate, followed by a strong decrease in the fertility rate (stagnating between 1.7 and 1.8<sup>8</sup> since the beginning of the 90s) especially among high educated women. The decline of fertility became a source of concern for the Australian government, and new family policies introduced between 1992 and 2006<sup>9</sup> aimed openly to increase Australian couples' fertility. These policies have been mainly based on economic benefits, directed to those families with young children with only one member employed and, as a consequence, favouring male-breadwinner family model (Brennan, 2007). Most of the policies have been developed to sustain non-working mothers, with the

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<sup>8</sup> Source: Australian Bureau of Statistics (various years).

<sup>9</sup> During these years right-wing party won all the elections, guaranteeing a continuity in the legislation.

idea that promoting the traditional division of gender roles would easily increased couple's fertility (Brennan, 2007). Consistently, until 2009 the possibility to access to paid parental-leave was not widespread, both among mothers and among fathers. In fact, until this date, parental leaves were not regulated at public level, but by the private bargaining process and agreement between the employer and the employee. The consequence is that about one-fourth of first-time working mothers become inactive the year of the birth of the first child<sup>10</sup>. Among women leaving the labour market after the birth of the first child, more than half were full time workers in the private sector (Whitehouse *et al.*, 2006).

The lack of policies supporting reconciliation between motherhood and working commitment lead women to rethink their priorities in terms of labour force participation and family-care involvement. In this sense, without policy support, the adjustment to the transition to parenthood might be even more difficult in Australian couples, especially if we consider the partially unexpected shift they live, from a quite egalitarian gender role-set of childless couples to a more traditional gender balance after the transition to parenthood (McDonald, 2001; Baxter, 2000; Craig and Siminski, 2010; Dempsey, 1997). Some studies revealed as the Australian family policies structure until 2009 was generating problems of gender equality especially after the transition to the first child (McDonald, 2000; 2013).

### **3.3. Hypotheses and data**

Our hypotheses are formulated starting from the TDIB model: in particular, the changes in the subjective life conditions after the arrival of the first child, as indicators of the adjustment to parenthood, would affect also the adjustment of fertility expectations to the actual life conditions. In particular, we want to test how parents' adjustment in the couple, family and work spheres partners' shape

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<sup>10</sup> The Parental Leave in Australia Survey (2005)



the changes in fertility expectations. The idea is that changes are important *per se* but they are affecting more fertility expectations if they are unforeseen.

As long as unexpected difficulties in parenting and difficulties to adjust to parenthood negatively affect couple and individual's subjective wellbeing at the transition to parenthood, we expect that a difficult adjustment to parenthood might lead to a decline of fertility expectations. In particular:

*H1: parents who have difficulties to adjust in couple, family and work spheres after the arrival of the first child are more likely to decrease the expectation to have a second child, compared to those who adjust easily.*

*H2: first time parents who experience unexpected difficulties in parenthood are more likely to reduce their expectation to have a second child compared to those who do not face unexpected difficulties; the satisfaction with their life acts as a mediating factor both for men and women.*

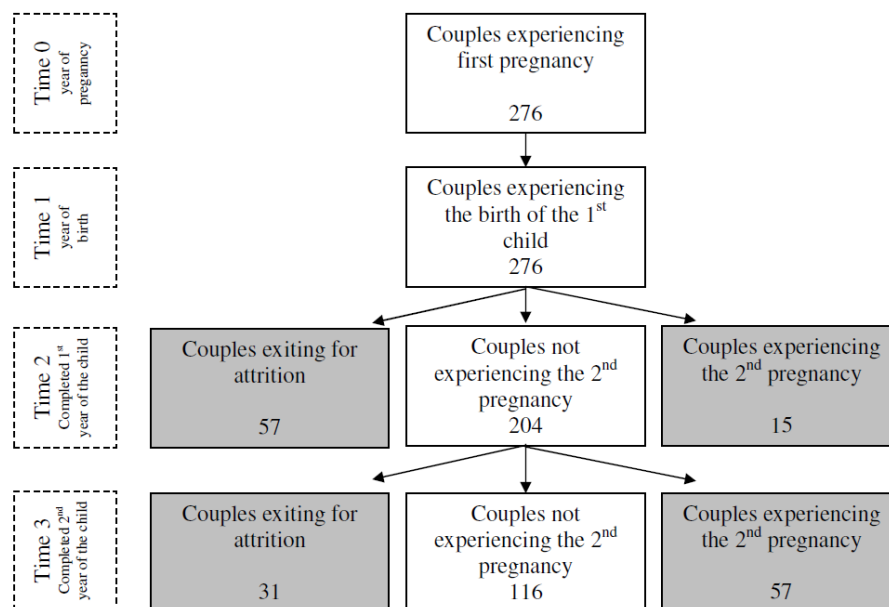
For the analyses we used the first 9 waves (2001-2009) of the Household Income and Labour Dynamics in Australia panel survey. We selected couples of first time parents, with women aged less than 45 years old, both partners never separated or divorced, having not experienced the death of a previous child or partner, and - neither the parents' nor the child - suffering for serious health problems (it counts about 580 couples). A further selection has been made based on the fact that couples have complete information on the year of the pregnancy and the birth of the first child. Then we kept couples with complete information on anticipation and adjustment to parenthood, and fertility expectations. From the 421 couples resulting from the selection, we kept couples with complete information on personality traits<sup>11</sup> for both the partners: the final sample counts 276 couples.

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<sup>11</sup> Questions on personality traits are included only in HILDA wave 5 and wave 9.

A time variable has been created to count the years since the pregnancy of the first child (time 0); at time 1, 276 couples already had the first child; at time 2 we have 204 couples 204 which have already experienced the completed first year of life of the child, and they are still childless; at time 3 116 couples are childless. As Figure 3.2 shows, the sample reduction with time is caused on one hand by the attrition and, on the other hand, by the event of a second pregnancy. In both the situations, couples exit the panel. Almost the 38% of the sample experiences the transition to the second child during the three years since the first pregnancy.

**Figure 3.2. Description of the sample**



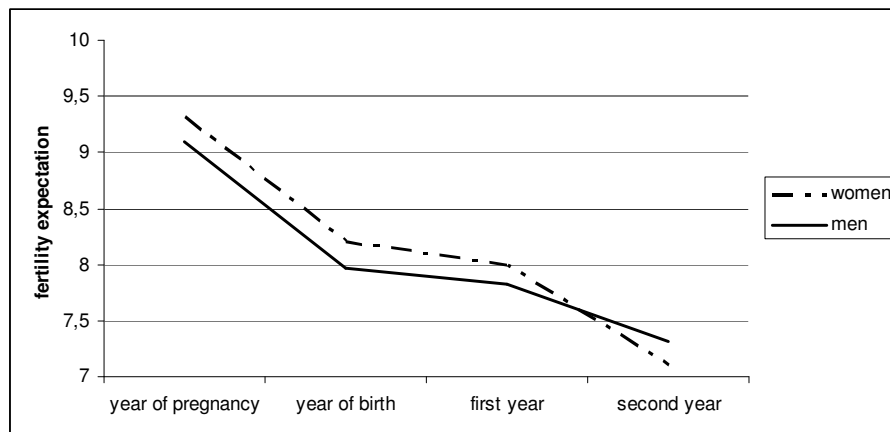
### 3.4. Main Variables and Descriptive Results

*Fertility expectations: the dependent variable.*

Information about fertility expectations have been collected through the question “How likely to have a child/more children in the future?”, asked every year. Individual position is scaled 0 (very unlikely) to 10 (very likely). The percentage of individuals with “strong” (i.e. very likely) expectation about having another child decreases after the birth of the first child (from 60% of women at the year

of the first pregnancy to 25% after 3 years; and from 50% to 25% for men). The change of the expectations between the year of the first pregnancy and the year of the birth of the first child is higher for women (women “very likely to have another child” pass from 60% to 35%) than for men (from 50% to 35%). So, if during the pregnancy of the first child, women are usually more convinced, compared to men, that they will have a second child, after one year both women and men lie on a similar level. This is true for individuals with “very strong expectation” (very likely fertility expectation = 10) as for individuals with a “strong” expectation (fertility expectation > 7). The decreasing trend of fertility expectation for women and men is well observable in Figure 3.3.

**Figure 3.3. Fertility expectation before and after the first child, for women and men (Couples with a first child born between 2001-2009)**



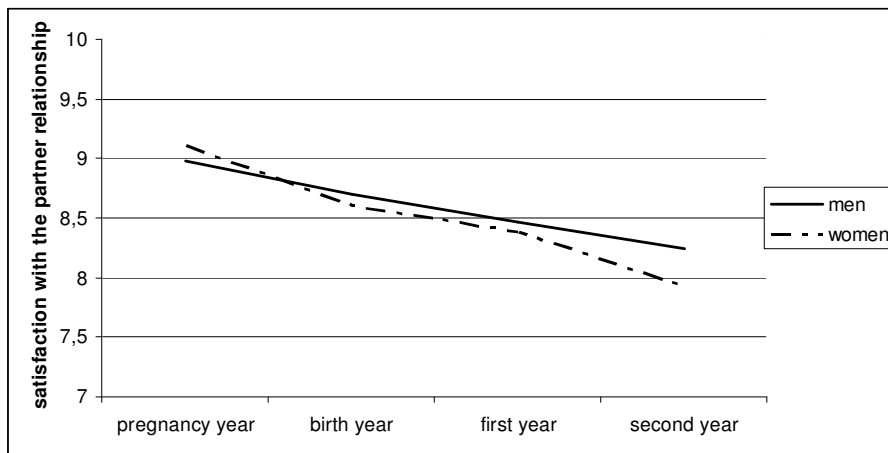
Data: HILDA waves 2001-2009.

### *Satisfaction for the relationship with the partner*

The satisfaction with the relationship with the partner is asked individually with the question “How satisfied are you with your relationship with your partner?”, scaled from 0 (completely unsatisfied) to 10 (completely satisfied). As Figure 3.4 shows, the relationship with the partner is less and less satisfying on average for both women and men starting since the birth of the first child. The decrease trend in partner satisfaction is similar for women and men, but it is more

accentuated for women, who start from an higher level of satisfaction and end up with a lower level compared to men. In particular, the year of the birth of the child is the most “shocking” for the partners, even if part of this loss can be a compensation for the increase of partner satisfaction during the pregnancy year (anticipation effect).

**Figure 3.4. Satisfaction about relationship with the partner before and after the first child (Couples with a first child born between 2001-2009).**



Data: HILDA waves 2001-2009.

### *Unexpected difficulties in parenthood*

HILDA surveys disconfirmed expectations on how parenthood would be hard by asking about individual’s level of accordance with the sentence “Being parent is harder than I thought it would be”, scaled 1 to 7, where 1 is “strongly disagree” and 7 is “strongly agree”. In our sample, 47% of women and 35% of men at the year of the birth of the first child declare that being parent is harder than imagined (individuals answering more than 4 on the scale). Whereas more specific questions on different expectation would represent a better tool, the HILDA variable can be treated as a general indicator of violated expectations regarding the difficulties in being parent (Lawrence *et al.*, 2007). We use this variable as indicator for an individual anticipation process regarding the

difficulties of parenthood. Moreover, a new variable has been constructed for all the possible combinations of partners' experience: both experiencing unexpected difficult, both not experiencing unexpected difficulties, she/he is the only partner in the couple experiencing unexpected difficulties.

*Family and work adjustment to parenthood and fertility expectation*

HILDA provides several questions regarding satisfaction with many life dimensions and different kind of possible consequences/impacts of becoming parent. This set of variables aims to derive information about the stress parents experience in both family and work dimensions, as consequences of having a child. To be parsimonious, we discard variables with the higher correlations, selecting some variables from each dimension, as indicators of adjustment to parenthood in family and work life, looking at the distribution of the sample along categories of each variable (see Table 3.1).

**Table 3.1. Variables for adjustment to parenthood in family and work life spheres.**

<b>Dimensions of adjustment:</b>		
<b><i>Adjustment to parenthood within the personal and family life</i></b>	Time with family is less enjoyable*	1 = <i>strongly disagree</i> ; 7 = <i>strongly agree</i>
	I'm doing more than the fair share in childcare	1 = <i>I do much more than the fair share</i> ; 5 = <i>I do far less than the fair share</i>
	I'm doing more than the fair share in housework	1 = <i>I do much more than the fair share</i> ; 5 = <i>I do far less than the fair share</i>
	Satisfaction with the free time	0 = <i>completely unsatisfied</i> ; 10 = <i>completely satisfied</i>
<b><i>Adjustment to parenthood at work</i></b>	Time at work is less enjoyable*	1 = <i>strongly disagree</i> ; 7 = <i>strongly agree</i>
	I had to turn down some work opportunities*	1 = <i>strongly disagree</i> ; 7 = <i>strongly agree</i>
	Satisfaction with the job*	0 = <i>completely unsatisfied</i> ; 10 = <i>completely satisfied</i>

\*Available only for employed respondents

### *Control variables.*

Near to the main covariates, some additional controllers have been considered in the analysis. In particular, according to Miller (1992) and Miller and colleagues (1999; 2000), personality traits should be considered as important factors shaping fertility motivations. Moreover, personality traits are also shaping the level and the adjustment of the individual's subjective wellbeing to experienced life events (Soons and Liefbroer, 2009; Headey, 2006; Lavner and Bradbury, 2010). In HILDA, personality traits are derived by the 36-items of the TDA Five Factors Personality Inventory, that allows to reconstruct the individual position on the five personality traits described in the Big Five Model (McCrae, 1991; McCrae and Costa, 1990; Montag and Levine, 1994): Openness, Conscientiousness, Emotional Stability, Agreeableness and Extraversion<sup>12</sup>.

Other controllers introduced are the educational homogamy in the couple (both partners are highly educated, she/he more educated, both partners are low educated), the occupational status and in particular the employment trajectory of the mother before and after the birth of the first child and partners' ages.

## **3.5. Method and results**

In order to test our research hypotheses we apply piecewise growth models, which satisfy our needs: 1) to know how the individual changes her/his position over time on fertility expectation; 2) to relate this change to some predictors; 3) to allow that individual trajectories might differ each other; 4) to allow that the same independent variable might change its effect with time.

Growth models are basically multilevel models for change. At level 1 they allow the inclusion of fixed effects (individual trajectories over time that might be determined by some predictors) while at level 2 we find random effects shifting the curve across the individual (Singer and Willett, 2003).

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<sup>12</sup> For more details see chapter 2.

Moreover, the individual change function (level 1) might change with time. In particular the hypothesis is that it can change its slope, because each independent variable might play different effect passing time. So far, we need to include some “discontinuity points” for our function, corresponding to the years we identify in our panel: the pregnancy year (*preg*), the year of birth (*birth*), the first year of life of the child (*first*), the second year of life of the child (*second*).

In our case, the formal shape of the piecewise growth model is:

$$Y_{ij} = \pi_{0i} + \pi_{1i} \text{preg}_{ij} + \pi_{2i} \text{birth}_{ij} + \pi_{3i} \text{first}_{ij} + \pi_{4i} \text{second}_{ij} + \varepsilon_{ij}$$

$$\pi_{ni} = \gamma_{n0} + \xi_{ni}$$

Other predictors have been gradually included at level 1. In order to shape the piecewise part, predictors for unexpected difficulties in parenthood and adjustment to parenthood are included as distinct variables for each year. In this way we allow each variable to play different effects on the dependent variable according to the time spell. At the year of the pregnancy, where these variables do not have any effect, they take value zero (0). The equation for the model is:

$$Y_{ij} = X_{ii}\beta + \pi_{1i} \text{preg}_{ij} + \pi_{2i} \text{birth}_{ij} + \pi_{3i} \text{first}_{ij} + \pi_{4i} \text{second}_{ij} + Z_{ii}t_i\lambda + \varepsilon_{ij}$$

One of the advantages of the multilevel estimation model is that we do not need a balanced design (Skrondal and Rabe-Heskett, 2008). Imbalance in research design (e.g. due to attrition) may be cause of invalidation of inferences in case of generalization. Under the missing at random assumption (MAR) we can generalize our results from growth model without biases (Laird, 1988). In fact, if data are MAR, the probability of missingness can depend on either the predictors or the outcome (Singer and Willet, 2003, p. 158). On the other side, we need to be sure that the probability of missingness does not depend upon unobserved

values of either predictors or outcome. Maximum likelihood estimation can produce consistent results if the previous conditions are present (Rubin, 1976).

In our case attrition has two origins: because individuals exit the survey (or the survey stops), or because individuals experience the pregnancy of the second child. While in the first case censored cases are random, in the second case we can assume that missingness can depend on previous outcome values<sup>13</sup>. As a consequence, we can say that the fact that couples experience the second pregnancy depends on high fertility expectations during the previous year.

We estimate three different models for women and men (see Table 3.2). [1] The first model (“Unexpected Difficulties”) includes some variables regarding unexpected hardness of being parents and marital adjustment – i.e. experience of unmet expectations about parenthood in each time period; different combinations of experienced unexpected difficulties among the partners; interaction between unexpected difficulties in parenting and the satisfaction with the partner’s relationship. [2] The second model (“Family Adjustment”) adds the variables related to family adjustment – i.e. doing more than fair share in childcare; doing more than fair share in housework; family time less enjoyable. [3] The third model (“Work Adjustment”) provides estimations also for the variables of the adjustment in the work sphere – i.e. satisfaction with the job; satisfaction with the free time; work time less enjoyable; having to turn down some job opportunities.

As expected, good couple relationship seems to be an important precondition for planning the arrival of another child. In fact, marital satisfaction is a strong predictor for increasing fertility expectation for both women and men. Nevertheless, having a satisfying relationship seems not to be the most important

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<sup>13</sup> The mean level of fertility expectation among couples remaining with one child is significantly lower (more than 1 point) compared to the mean level of fertility expectation for individuals experiencing the second pregnancy the subsequent year (mean comparison test among groups:  $\Pr(T < t) = 0.000$  both for women and men).



condition for working mothers and working fathers (Table 3.2 “Work Adjustment”): in this case the determinants for a change in fertility expectation are others and more related to the work adjustment. This result underline the existence of other difficulties that weigh on dual-earner couples expectations to have a second child, at least in the short run. We will discuss later how this is more due to the difficult reconciliation in family and work commitment.

Another strong variable associated with changes in fertility expectations is represented by experiencing unexpected difficulties at the transition to parenthood. If excluding the effect of the satisfaction with the partner, unexpected difficulties in parenthood decrease fertility expectations for both the partners (see Appendix B). But including relationship satisfaction (Table 3.2 “Unexpected Difficulties”), if parenthood is harder than anticipated it negatively affects only women’s fertility expectation, especially starting from the completed first year of life of the child. For women, a strong source of (unexpected) difficulties is the reconciliation between parenting and job commitment: in fact, including family and in particular work adjustment variables, the significance of the unexpected difficulties variables decreases. On men’s side, if controlling for the satisfaction with the relationship with the partner, only a persistent unmet expectations about parenthood seems to decrease men’s fertility expectation (at the second year of life of the child). On the same time, the combined effect of unexpected difficulties in parenting with an unsatisfying relationship with the partner after the year of the birth seems to have some negative effects on men’s expectations to have another child, especially in dual-workers couples. This result suggests that, for men, marital adjustment acts as a mediating variable between unexpected difficulties in parenthood and fertility expectation.

Men and women differ also in the way the reconciliation of family and work commitment impacts on their fertility expectation. This result is expected: the lack of family policies for working parents in Australia, before 2009, generate inequalities between couples, but especially mothers, with and without children. Dual earner couples, if not supported by external help (e.g. relatives,

formal childcare services), need to find difficult compromises between family and work, that in Australia usually ends with mothers' renunciation to their full-time involvement in their work. Maybe for this reason, difficulties in family adjustment seem to affect only working mothers' fertility expectation<sup>14</sup>. It means that, if working mothers have difficulties to reconcile, they will adjust (reducing) their fertility expectation. It is interesting to note which factors are increasing or decreasing fertility expectation for working women. First of all, both declaring that time at work less enjoyable as that woman is doing more than the fair share in childcare are increasing women's expectation about having a second child. On the contrary after the first year of the child, "loosing career opportunities" and "doing more than the fair share in housework" decrease women's expectation of having another child. These two relations seem to describe two different situations: in the first case, women dedicating more energies to parenting and not finding a pleasant job situation would invest more on fertility; in the second case, women not self-realizing in the labour market, and facing most of the housework commitment in the couple, are less prone to the idea of having a second child. Satisfaction with the free time seems to play a relevant role in increasing working mother's intention to have a second child.

For mothers the years following the year of the birth of the first child are the most demanding in terms of difficult reconciliation and, maybe for this reason, the most affecting their fertility expectations. On the contrary, for fathers the year of the birth of the child seems to be the most emotionally intense at least if we consider how many factors are affecting their expectations about having a second child during this period. In both the cases, parents' implications in family tasks seem to affect also the way they think the possibility to have additional children. Childcare remains a female prerogative at least during the first period, and doing more than the fair share in childcare for men decreases male's fertility

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<sup>14</sup> In the model for Family Adjustment, if we exclude variables of unexpected difficulties, doing more than the fair share in housework decreases significantly women's fertility expectation. This means that the negative effect of the perception to do more than the fair share in housework is present only if women do not expect the hardness of the unfair distribution of domestic tasks.

expectation. But doing more than the fair share in housework seems a prerequisite for men to increase their expectation to have another child. The increasing fertility expectations for fathers involved in family tasks might mean two things: family oriented men are more inclined to participate to household activities and to have additional children; the cooperation between the partners in facing the new family needs might facilitate the adjustment to parenthood, creating positive expectations about having additional children. In this sense, housework is the important bargaining field for planning the transition to a second child. Also the fact that turning down some work opportunities is related to increasing men's fertility expectations could mean that reducing work commitment and increasing family commitment by fathers, makes the second child more affordable. It might be interesting to see under which conditions turning down work opportunities can be related to a previous positive parenting experience for fathers, which would be the real condition for increasing fertility expectation.

To sum up, the different results for women and men might suggest a different meaning that women and men give to parenting. Women, invested with a gender unbalanced responsibility of childrearing, reduce their fertility expectation – among several possible reasons – because they find difficult to reach a satisfactory level of management of their priorities and preferences, such as the reconciliation between work and family, or because of the increase in conflicts and dissatisfaction in couple's relationship. Among men, the unpredicted difficulties of parenthood affect first and foremost the relationship with the partner and then, only in turn, this reduces their expectation about having another child. It seems that most of the men's perspective about having a second child lies more on the impact of the first child on the quality of the couple's relationship and only secondarily on the difficulties to adjust family and work life to parenthood needs and priorities.

Looking to the results for the control variables, we can derived some interesting conclusion, especially related to personality traits. We see that personality traits are not significant, except for some weak results for “openness”. We might think that, consistently with Miller and Pasta’s theory, while personality traits might be relevant in determining the latent motivation and desires, the changes in fertility expectations are mainly derived by the changes in the situational factors.

**Table 3.2. Piecewise linear growth models for fertility expectation (couples with a first child born in 2001-2009).**

	Women			Men		
	Unexpected difficulties <sup>b</sup>	Family Adjust. <sup>c</sup>	Work Adjust. <sup>a,d</sup>	Unexpected difficulties <sup>b</sup>	Family Adjust. <sup>c</sup>	Work Adjust. <sup>c</sup>
<b>Time:</b>						
Birth year	-0.12	-0.20	-0.73	-1.17**	-0.95	-0.80
First year	0.41	-0.52	-0.17	-1.46**	-1.58	-0.84
Second year	0.98	0.32	2.71	-0.18	0.05	0.02
<b>Unexpected difficulties in parenthood:</b>						
Unexpected difficulties (birth y.)	-0.18*	-0.20*	-0.36*	-0.02	-0.06	-0.03
Unexpected difficulties (first y.)	-0.28***	-0.27**	-0.36	0.13	0.12	0.09
Unexpected difficulties (second y.)	-0.55***	-0.58***	-0.58**	-0.38*	-0.40*	-0.45*
Both unexpected difficulties	0.09	0.07	0.16	-0.42	0.42	-0.37
She unexpected difficulties	0.40	0.38	0.64	-0.21	-0.24	-0.25
He unexpected difficulties	0.07	-0.09	-0.58	-0.04	-0.03	-0.08
Unexp.diff *partner dissatisfaction (birth y.)	0.04	-0.01	-0.01	-0.14	-0.11	-0.17
Unexp.diff *partner dissatisfaction (first y.)	0.02	-0.01	-0.18	-0.21*	-0.21*	-0.25**
Unexp.diff *partner dissatisfaction (second y.)	-0.05	-0.04	-0.28	0.21	0.22	0.08
<b>Marital Adjustment:</b>						
Satisfaction relationship with partner	0.25***	0.26***	0.10	0.18***	0.18***	0.10(*)
<b>Family Adjustment:</b>						
more than fair share childcare (birth y.)		0.28(*)	0.66***		-0.47**	-0.49**
more than fair share childcare (first y.)		0.16	0.65**		-0.10	-0.40
more than fair share childcare (second y.)		0.71(*)	0.51		-0.09	-0.36
more than fair share housework (birth y.)		-0.19	-0.27		0.38**	0.37**
more than fair share housework (first y.)		0.05	-0.22		0.15	0.10
more than fair share housework (second y.)		-0.63(*)	-0.97*		-0.02	0.03
family time less enj. (birth y.)			-0.19*			0.02
family time less enj. (first y.)			-0.08			-0.14
family time less enj. (second y.)			0.21			-0.04
satisfaction with free time			0.07*			0.04
<b>Work Adjustment:</b>						
work time less enj. (birth y.)			0.41***			0.01
work time less enj.(first y.)			0.21			0.05
work time less enj. (second y.)						-0.05
job satisfaction			-0.01			0.01
turn down work opp. (birth y.)			-0.12			-0.01
turn down work opp.(first y.)			-0.50***			0.23**
turn down work opp. (second y.)			0.25			0.42**

	Women			Men		
	Unexpected difficulties <sup>b</sup>	Family Adjust. <sup>c</sup>	Work Adjust. <sup>a,d</sup>	Unexpected difficulties <sup>b</sup>	Family Adjust. <sup>c</sup>	Work Adjust. <sup>c</sup>
<b>Control variables</b>						
<i>Personality traits</i>						
Extraversion	0.08	0.07	0.14	-0.13	-0.13	-0.03
Agreeableness	-0.01	0.01	0.11	0.15	0.15	0.13
Emotional Stability	0.01	0.01	0.05	0.11	0.12	0.08
Conscientiousness	0.09	0.10	0.03	-0.01	-0.02	-0.05
Openness	-0.12(*)	-0.11	-0.06	-0.13	-0.13	-0.15*
<i>Demographic characteristics:</i>						
age	-0.11***	-0.11***	-0.09***	-0.04	-0.04	-0.02
Partner's age	-0.07	-0.06	-0.05	-0.10***	-0.10***	-0.11***
She higher education	0.03	0.03	0.26	-0.24	-0.08	-0.01
He higher education	0.10	0.12	0.21	-0.36	-0.38	-0.38
High educational homogamy	-0.17	-0.17	-0.40	0.07	0.12	0.21
He employed	-0.03	-0.09	0.02	0.63**	0.55(*)	
<i>Employment trajectories:</i>						
Inactive (preg y.)	-0.27	-0.28		-0.79***	-0.79***	-0.70***
Employed (preg y.) – Inactive (birth y.)	0.03	-0.13		0.34	0.35	0.17
Inactive (preg y.) – Employed (birth y.)	-0.83	-0.71		-0.45	-0.49	-0.48
Inactive (preg y.) – Inactive (birth y.)	-0.76*	-0.95**		-0.64(*)	-0.57	-0.81*
Employed (preg y.) – Inactive (first y.)	0.16	0.32		0.30	0.30	0.45
Inactive (preg y.) – Employed (first y.)	-0.77	-0.80		-0.89	-0.84	-0.78
Inactive (preg y.) – Inactive (first y.)	-1.45***	-1.31**		-0.96**	-0.97**	-1.15**
cons.	9.80***	9.29***	9.16***	10.94***	10.92***	11.91***

Note: \* =  $p \leq .5$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$

Note: <sup>a</sup> only dual earner couples

Note: <sup>b</sup> N=836; <sup>c</sup> N=764; <sup>d</sup> N=548

### **3.6. Conclusion**

This study aimed to find how the adjustment to the first parenthood affects parents' future fertility plans. In particular, following Miller and Pasta TDIB model (1995), we assess the effect of parents' changed life conditions after the arrival of the first child on their fertility expectations. We specifically looked at the perception and the judgment about the changes in first time parents' life conditions, for both women and men, considering the gains and losses in their subjective wellbeing.

The main finding of our research is that couple's expectations to have a second child change after the arrival of the first child, decreasing on average, and this change mirrors a complex process of adjustment to parenthood in many life spheres. The fact that personality traits are never significant for explaining the changes in fertility expectations is consistent with the TDIB model. In fact, while personality represents stable traits that concur to build stable fertility motivation (personality traits are supposed to be stable, especially in the short term), the changeable experience of the life conditions is the strongest predictor for the changes in fertility expectations. The dependence of the fertility expectations by the situational factors has been highlights also by further results: the effect of the process of adjustment to parenthood on partners' fertility expectation can vary passing time, depending on the persistence of difficulties to adjust to parenthood. The fact that the reconciling process of family and work commitment after the transition to the first parenthood affect differently new mothers and new fathers suggests the presence of gendered factors affecting adjustment to parenthood. An important role can be played by contextual factors, such as family policies. In Australia, at least until 2009, the absence of adequate family policies to sustain both fertility and mother's employment, have been accused to be responsible of high gender inequity and, on the same time, not to increase fertility. If fertility expectations can change during reproductive life, enjoying satisfying conditions of life in the couple, family and work are important precondition for maintaining high fertility expectations. If both parents,

and especially mothers, are supported in reconcile family and work preferences and roles, the consequences of the first parenthood would be lighter. This is policy relevant: in fact, we can read in the difficulties that reduce fertility expectations the common causes that also negatively affect individual's fertility realization. Family policies can play a key role in supporting the reconciliation between motherhood and work, and promoting an active fatherhood. The result of such family-reconciliation policies, according to our findings, would be a quicker and easier adjustment to the revolution of the first birth: consequently, first time parents would experience (or event not experience) a lower decrease of subjective wellbeing, and therefore the maintenance of higher propensity to proceed to higher parities. In this sense, keeping high the expectations about having additional children should reduce childbirth spacing and, as a consequence, the gap between the desired fertility and the realized fertility: the existence of such a gap is one of the most widespread evidences of the difficulties to reach the fertility replacement level in the Western societies.



# Chapter 4

## Is it time for a second child? The role of the couple's subjective wellbeing after the first parenthood in Australia.

### Abstract

This paper focuses on the effect of changes in partners' subjective wellbeing after the birth of the first child on the time interval before the second child. Changes in subjective wellbeing are operationalized as the process of adjustment in the couple's relationship, work and family spheres that new parents experience in the short run after the birth of the first child. The analysis is conducted on a representative sample of Australian couples using the Household Income and Labour Dynamics in Australia panel survey (2001 to 2009 waves). A multidisciplinary approach is used to encompass the sociological, demographic and psychological dimensions of the decision-making process to have a second child. In particular, the Traits-Desires-Intentions-Behaviour model (Miller and Pasta, 1995a), Gender Equity Theory (McDonald, 2013), and the Dynamic Equilibrium Theory (Headey, 2006) are jointly employed. The results suggest that men and women differ in the way the subjective cost – intended as a loss in subjective wellbeing – of the first child impacts on the timing of the second pregnancy. In particular, difficulty in work adjustment for women and in family adjustment for men are the gender-specific mechanisms which have more impact on the transition to the second child.

Keywords: second child, work adjustment, family adjustment, marital adjustment, personality traits

## 4.1 Introduction

This study focuses on whether gains and losses in couple's subjective wellbeing after the arrival of the first child are associated with the timing of the transition to the second child in Australia. In particular, the study considers a large set of changes in the life satisfaction dimensions of new parents after the arrival of the first child as indicators of the process of work-family adjustment to parenthood. The analysis uses the first 9 waves of the Household Income and Labour Dynamics in Australia (HILDA) panel survey, from 2001 to 2009. This time span excludes some external influences such as the consequences of a big change in family policies which took place between 2009 and 2011 and the confounding effects of the economic crisis.

The costs associated with having the first child seem to be related to the decision to have a second child and they might affect the chances of realizing higher fertility (Billari & Kohler, 2009). Traditionally, this phenomenon has been studied from the perspective of the difficult trade-off between motherhood and career for women. After experiencing a first childbearing, a rational evaluation of the costs/opportunities for working mothers has been considered the main reason for a difficult transition to higher birth orders in Western countries. Nevertheless, new parents face a wider set of costs that cannot be reduced to the loss of economic returns on human capital investments: in particular, I refer to a loss of subjective wellbeing that might occur with the transition to parenthood. According to the main view in the literature, the arrival of the first child is usually a joyful event that has a positive effect on a couple's long-term subjective wellbeing. Nevertheless, some studies reveal that in the short run after the first childbirth new parents may experience a loss of subjective wellbeing (Pollman-Schult, 2014; Margolis and Myrskylä, 2011; 2014; Frijters *et al.*, 2011). This decline in subjective wellbeing can be due to a mismatch between new parents' expected and actual commitments in different life dimensions (e.g. love

relationship, family, work). The effect of having a child on parents' subjective wellbeing has been extensively addressed by the psychology literature. What seems lacking is demographical literature on the other direction of the relationship: the effect of subjective wellbeing on fertility behaviour (Cowan *et al.*, 1985; Diener *et al.*, 1999; Billari and Kohler, 2009). I argue that the lack of perspectives and findings on this topic has also reduced the possibility of a full understanding of fertility behaviour.

This study aims to fill part of this gap by considering the psychological mechanisms (subjective wellbeing, personality traits, expectations) behind the decision to have a second child. Obviously, the results are context-dependent and intrapersonal characteristics are important mediating factors. In fact, personality affects the desire for children, the satisfaction derived from childbearing and the ability to adjust to difficulties in parenting. Personality traits are linked to major life goals but few studies take the relationship between personality and fertility choices into consideration. Moreover, only a small set of contexts has been covered. In addition, the possibility that the effects of personality might pass through some mechanisms of adjustment has not been considered. In fact, personality may contribute to explaining how new parents might adjust differently to the transition to parenthood. In this sense, personality traits are also controls for the genetic determinants of the ability to easily adjust to parenthood.

A multidisciplinary approach is also relevant from the perspective of policymakers: especially in a context of absence of gender equity – at least after the transition to parenthood, as is the case in Australia (McDonald, 2000), the arrival of the first child might reduce couples', and in particular women's, opportunities to match their preferred and actual commitments to family and work. A loss of life enjoyment derived from difficulties in reconciling family and work might increase the level of conflict in the couple. For this reason, new parents might decide to postpone the arrival of a second child until they recover a

satisfactory new equilibrium. In this sense, policymakers should read the relationship between adjustment to first parenthood and the timing of the second child as an indicator of the difficulties new parents face, which might decrease – at least temporarily – the probability of experiencing higher birth orders. Even though Australia is a context of high fertility, the persisting perception of an absence of equal opportunities for mothers and fathers might change the scenario: values associated with self-fulfilment and gender equity might reduce the propensity of career-oriented women to unconditionally realize their fertility desires.

The chapter is structured as follows. In the first part, I discuss the main literature and present the traditional approaches to studying low fertility and postponement of childbearing, together with the main findings about the relationship between life satisfaction, personality traits and fertility. Next, the case under study will be contextualized with an overview of the Australian situation in terms of fertility behaviour and family policies. In the second part, I present the sample and the method employed to find the determinants of the timing of the transition to the second child in a representative sample of 276 Australian couples.

## **4.2. Literature Review**

### **4.2.1 The subjective costs of parenthood**

The typical perspective for studying low fertility and postponement of childbearing, both at the micro and the macro level, focuses on the relationship between parenthood and work in the labour market. In particular, difficulties in reconciling these two facets of life in Western countries have been seen more as an obstacle to women's fertility intentions and realizations than to men's (Sanchez and Thomson, 1997; Breen and Cook, 2005). Nevertheless, the opportunity costs of motherhood for working women only partially depend on a rational calculation of the cost of childbearing to their utility function (Becker, 1981). Other costs and opportunities are more related to the perception of

changed life conditions and parents' actual and expected levels of subjective wellbeing. Closer to the idea of the existence of other "subjective costs", some theoretical perspectives focus on the incoherence in terms of gender equity in family and labour market institutions (McDonald *et al.*, 2000; Rindfuss *et al.*, 1996), and the role of latent motivations, desires and preferences (Ajzen and Klobas, 2013; Miller and Pasta, 1995a; Miller, 2011).

The first perspective insists on gender equity – here intended as an unfair perceived distribution of opportunities between genders (Mencarini, 2014) – and in particular on the inconsistency between low gender equity in family-oriented institutions and high gender equity in other individual-oriented institutions (McDonald *et al.*, 2000; McDonald, 2013; Rindfuss *et al.*, 1996). In Australia, the absence or the inadequacy of maternity policies, government subsidies, flexibility in the workplace and availability of day care are the main causes of incompatibility between childbearing and gender-equal participation in the labour market (Rindfuss *et al.*, 1996). According to the literature, an absence of policies for working fathers also contributes to the reproduction of the traditional gender division of roles (Oláh, 2003), and this also seems to have consequences in terms of higher fertility results. Brodmann, Esping Andersen and Güell (2007) examine the effect of fathers participating in childcare on the likelihood of career-oriented women proceeding to a second child, comparing Spain and Denmark. They find that the transition to the second child is more likely for Danish women because of the support provided by a strong welfare state and negotiated participation by fathers in childcare. Miller-Torr and Short (2004) find different paths towards high fertility: in the US, the likelihood of couples proceeding to a second child is higher both when women do less than their fair share of housework and when they do more than their fair share of housework. These results seem to confirm a U-shaped relationship between gender equality attitudes and fertility outcomes. In this sense, given a specific context of low or high gender equity in institutions, fertility realizations become the result of the intra-family division of roles as the expression of partners' gender attitudes (Miller-Torr and Short, 2004) and preferences.

Under the second perspective, Miller and Pasta's (1995a; Miller, Severy and Pasta, 2004) Traits-Desires-Intentions-Behaviour (TDIB) model shows that changed objective and subjective life conditions can impact on the relationship between desires and expected fertility as an intermediate process affecting fertility realization. Miller and Pasta's TDIB model is derived from Ajzen's Theory of Planned Behaviour (Ajzen 1985; Ajzen and Klobas, 2013). This theory focuses on the process of generation of intentions, while Miller and Pasta's model takes into account the sequences of the relationships between motivation (latent), desires, intentions and demographic behaviours. In particular, the TDIB model includes the possibility that situational factors impact on the relationship between fertility intentions and behaviour and thus affect the timing of childbirths (Miller and Pasta, 1995b). This approach can also be easily enlarged to the life satisfaction perspective, considering gains and losses in subjective wellbeing as indicators of changed situational factors that might modify couples' fertility intentions, expectations and behaviours. In this sense, the arrival of the first child can be a source of both positive returns in terms of subjective wellbeing and of conflicts in the couple and loss of satisfaction with some life domains. It seems, for example, that one of the main sources of conflict in the couple is rooted in preferences about housework and childcare, as in the level and type (practical and emotional) of support expected and experienced by women (Coltrane, 2000). A match between the father's contribution to childcare and housework and the partner's expectations positively affects a couple's higher fertility: this relationship has been found both in a gender-traditional country such as Italy (Del Boca, 2002) and in a more gender-egalitarian country such as Sweden (Goldscheider *et al.*, 2008). Even if it is known that there is a relationship between the level of egalitarianism in the couple and the propensity to realize a higher parity (Puur *et al.*, 2008), the relationship with subjective wellbeing (in particular with changes in satisfaction with the partners' relationship and their commitments to work and family) still needs to be examined in more depth.

#### **4.2.2. The relationship between subjective wellbeing and fertility.**

The literature indicates that an increased level of satisfaction with life is a prerequisite for a higher propensity to have a/another child (Parr, 2010). Life satisfaction is related to objective conditions in different domains of individuals' lives. It is a cognitive evaluation of how satisfied people feel with their life generally, unlike "happiness", the evaluation of which is more emotionally driven (Campbell *et al.*, 1976). Nevertheless, a general indicator of life satisfaction might be too broad to be responsive to changes in satisfaction with specific dimensions of life. Interest in the multidimensionality of the concept of life satisfaction (Saris and Ferligoj, 1995; Veenhoven, 1996; Cummins, 1996) is now driving the main literature on subjective wellbeing indicators. This posits that overall wellbeing depends on satisfaction with each of several domains of life (Campbell *et al.* 1976). It has also been discovered that more specific dimensions of life satisfaction tend to change and adapt more to life circumstances than a general indicator, which is usually more stable during the life course (Veenhoven, 1993; Diener *et al.*, 1999). This means that a bi-directional relationship between satisfaction with life and life events is more visible if attention is focused on single dimensions of life. Specifically, some of the literature shows that the most important factors for deciding to have a second child are conditioned by satisfaction with household and childcare tasks, satisfaction with the equilibrium between work and home for each partner, and marital satisfaction (Kalmuss *et al.*, 1992; Ruble *et al.*, 1988; Campione, 2008), even though marital satisfaction does not seem to necessarily have a positive effect on fertility (Zimmermann and Easterlin, 2006; Mencarini and Tanturri, 2006).

The processes of changes in life satisfaction along the life cycle are well described (both theoretically and methodologically) by the literature on the "hedonic adaptation" model and its successors. "Adaptation theory" (Helson, 1964) states that personality is something stable over time and that it defines a sort of equilibrium level of life satisfaction. Life events can only produce temporary changes in the level of life satisfaction, which with the passing of time

tends to revert to its equilibrium level, due to the so-called “adaptation effect”. The idea of the existence of this “hedonic adaptation process” has been partially revised by the “Dynamic Equilibrium Theory” (Headey and Wearing, 1989; Headey, 2006): the main studies on the topic now seem to confirm that, if it is true that people tend to adapt to a new life situation, the time they need to adapt and the level of life satisfaction to which they return change according to the kind of life events they have experienced and their personality, with an interaction with environmental factors (Plagnol and Scott, 2010; Frijters *et al.*, 2011; Angeles, 2009).

Even though the idea of a “hedonic adaptation” is still being debated, we can nevertheless generally speak about the fact that life events impact on individuals’ satisfaction with life according to two possible processes. First, a change in satisfaction may occur as the direct effect of experiencing a certain life event, and only in the longer term does the individual tend to recover the level of satisfaction experienced before this event; second, changes may occur before the event according to the individual’s expectations. The two processes can be defined as “adjustment” and “anticipation”. Some studies on fertility behaviour offer interesting evidence of these processes. For example, recent analysis confirms that people who have higher expected happiness from having a child are more likely to have one in the short term and that the additional happiness that parents anticipate from having a child facilitates childbearing decisions (Billari and Kohler, 2009). Moreover, its effect will depend on parity (Margolis and Myrskylä, 2011), simply because those who have already had children will learn from their experiences. In this sense, the arrival of a first child (the transition to parenthood) is a unique event: the lack of similar previous experiences makes wrongly anticipating the consequences of becoming parents more probable. But what happens when the anticipated ideal does not match with the real difficulties that new parents have to face? What some studies reveal is that unexpected difficulties and unmet expectations tend to reduce marital satisfaction (Belsky and Rovine, 1990) and create conflicts in the couple (Belsky, 1998). Moreover, there is some evidence that unexpected difficulties relate to a reduction in the likelihood of a transition to a second child. Goldscheider and



colleagues (2013), in their study on a sample of Swedish couples, find that unmet expectations about gender equality have an impact on higher parity. In particular, the presence of “inconsistency” between previous ideal expectations and the reality of an unequal gender division of roles after the arrival of a first child reduces the probability of a transition to a second child.

Regarding the adjustment process, it has already been mentioned that the arrival of the first child usually increases conflict in the couple and reduces the quality of the couple’s relationship (Cowan, 1985), at least in the short run (Cox *et al.*, 1999; Twenge *et al.*, 2003; Lawrence *et al.*, 2007). The fact that the drop in marital satisfaction is a temporary fact suggests that after a period of shock, where the previous life routine is broken by the arrival of the child, couples find a new balance, practically and psychologically adjusting to the new situation. The loss of marital satisfaction at the arrival of the first child has been found associated with the difficulties to reconcile family and work (Gallie and Russel, 2008). For this reason that the same decline might be hypothesized also for other spheres of life, such as family and work, where difficulties in reconciling the parental role with other roles might initially decrease the individual’s satisfaction in specific life domains.

#### **4.2.3 The “Five Factors” of personality and fertility**

The existence of a relationship between personality and demographic behaviour, and in particular fertility, is suggested by several psychological studies (Ozer and Benet-Martinez, 2005). According to psychological research, the ways in which individuals act in society are only partially determined by social influences and norms. Intrapersonal characteristics, such as personality traits, shape individuals’ attitudes and preferences, strongly influencing their choices and actions (McCrae and Costa, 1999; Roberts and Robins, 2000). While the interaction between personality traits and fertility is quite a recent topic in medical and psychological studies, it is almost completely absent in demographic and sociological research. In the sociological field, the only paper specifically focusing on the relationship

between personality and fertility is Tavares (2010). This is a study of the timing of the first pregnancy for a sample of British women. Using a log-logistic model, Tavares finds a significant relation between most personality traits and the timing of motherhood. A relevant role for the genetic component among the determinants of individuals' behaviours, and in particular fertility, has also been found by Kohler and others (1999). These authors find that among the youngest cohorts of Danish twins, the social determinants of reproductive behaviour have a small effect, while the genetic components can explain an increasing proportion of variability in fertility behaviour.

Most of these studies operationalize personality using the Big Five factors model (Goldberg, 1981). Even though there is no universal agreement on the taxonomy which best describes personality traits, the Big Five factors model has won widespread acceptance in the scientific community (John and Srivastava, 1999), partly because it allows the measurement of personality traits without overlaps (McCrae and Costa, 1999). The Five factors (Conscientiousness, Agreeableness, Neuroticism, Extraversion and Openness) have been identified more in order to compare subpopulation characteristics rather than to portray the personality of individuals, and the personality traits are empirical concepts, not derived from a theoretical model. At the moment, the main tools for measuring Big Five personality traits can count up to 240 items<sup>15</sup> from which the Five Factors can be extracted. There are no precise definitions of the five factors, but a summary of the main features is presented in Table 4.12, based on Bouchard and colleagues (1999) and McCrae (1991).

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<sup>15</sup> The main tools for measuring the Big Five are Goldberg's TDA – Trait Descriptive Adjectives (1992); the BFI – Big Five Inventory – by John and Benet-Martinez (1998); the NEO-PI-R and NEO-FFI Personality Inventory by Costa and McCrae (1992); and the TIPI – Ten Items Personality Inventory – by Gosling et al. (2003).

**Table 4.1. Description of the Big Five personality traits model**

<b>Personality Trait</b>	<b>Opposite trait</b>	<b>Description</b>
<i>Conscientiousness</i>	<i>Undirectedness</i>	Encompasses a sense of competence, self discipline, a sense of duty, a need for achievement, and organization. It implies an easy social control of the individual's behaviour, thanks to her/his predisposition to follow rules and norms.
<i>Agreeableness</i>	<i>Antagonism</i>	Measures trust, sympathy, and cooperation. She/he adopts altruistic behaviours, and she/he is tender-minded and modest.
<i>Neuroticism</i>	<i>Emotional Stability</i>	Underlies the chronic experience of distressing emotions. The individual often feels anxious, nervous and sad.
<i>Extraversion</i>	<i>Introversion</i>	Measures energy and sociability. It implies an enthusiastic approach to social life, and includes characteristics such as assertiveness and positive emotionality.
<i>Openness to experience</i>	<i>Closed-mindedness</i>	Implies imagination, curiosity, divergent thinking and liberal attitudes. The individual prefers a variety of activities to routine.

Another interesting characteristic of the Big Five is that the factors are related to the biological disposition of individuals (Jang *et al.*, 1998). The fact that the genetic component of the individual influences her/his personality seems to guarantee the stability of the personality traits along the life cycle, and in particular in adulthood (Caspi and Roberts, 2001).

### **4.3. The Australian context**

Since the beginning of the 70s, the increased participation of women in both higher education and the labour market have favoured women's involvement in the labour force. Career and family commitments have thus started to represent a tricky choice for mothers. Social researchers began to refer to this group of women that do not make a single choice between being mothers or workers as "double career women". A consequence of the complex of social changes that involved the role of women during these years is a decrease in Total Fertility Rate (TFR) in all these countries. In Australia, while the female employment rate has increased, TFR has stagnated between 1.7 and 1.8<sup>16</sup> since the beginning of the 90s. Nevertheless, compared to other OECD countries, Australian TFR is not

<sup>16</sup> Source: Australian Bureau of Statistics (various years).

among the lowest low, even though it does not reach the minimum recovery level (2.1).

From 1992 to 2006, Australian governments developed a set of family policies with the aim of supporting single income families after the arrival of the first child. Families that adopt the traditional single breadwinner model are rewarded compared to double-income families through economic benefits and tax refunds. The employment of mothers was also discouraged by a lack of a universal system of paid parental leave (until a left-wing government reform in 2009, which has been fully operative since 2011). The main consequences of a system that favours the male-breadwinner family model are an increased gender gap, the penalization of working mothers and decreasing TFR among young women (McDonald, 2000). This “step back” in terms of gender equality (Craig, Mullan and Blaxland, 2010) also has consequences in terms of gender equity (McDonald 2000; 2013): women are well-aware of their reduced opportunities in the labour market and the comparative disadvantages they have with respect to their male colleagues. This “shock” that the more career-oriented experience at the transition to parenthood might be considered one of the reasons for the decrease in the fertility rate in recent decades (Fan and Maitra 2010). The shift from being a childless couple with fairly egalitarian gender roles to being parents with traditional gender roles makes Australia (until 2009) a perfect context for an analysis of the consequences of the shock that the arrival of the first child produces in terms of adjustment in the couple, work and family spheres and its effect on parents’ decisions to have an additional child (for more details about the Australian institutional context see Chapter 1).

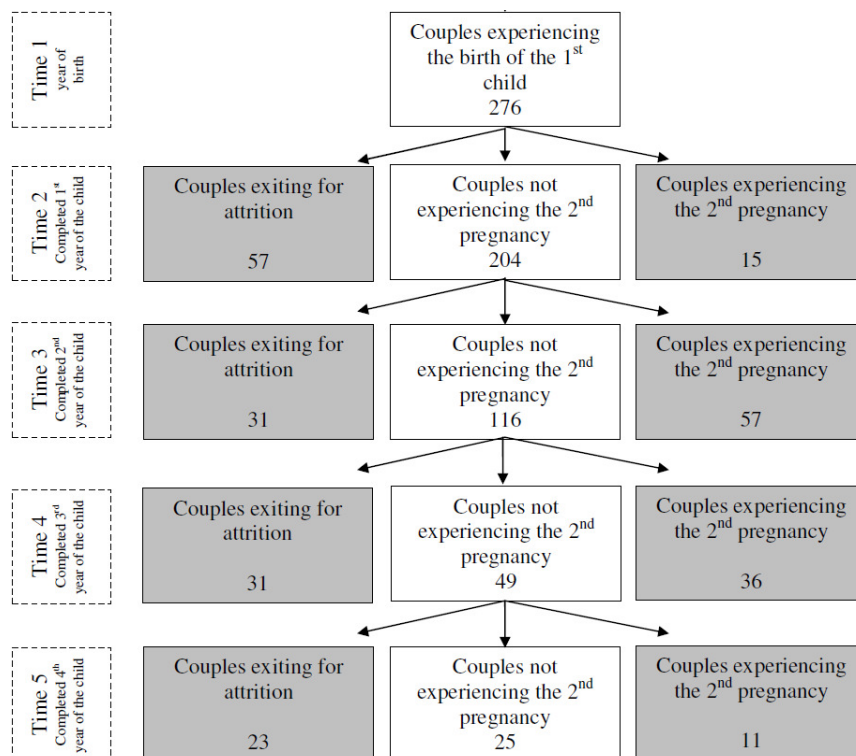
#### **4.4. Data and sample**

Using the first nine waves of the Household Income and Labour Dynamics in Australia (HILDA) panel survey (2001-2009), a sample of 276 couples is selected: they are couples of first-time parents in which the women entering the

sample are no more than 45 years old. Couples in which at least one of the two partners has experienced a previous childbirth are discarded. The couples are followed from the year of the first pregnancy. Right censoring is caused by attrition, the experience of a dissolution second pregnancy (122 cases), or couple (21 cases).

A time variable counts the years passing since the year of the birth of the first child. The time “at risk” starts at time 1 (year of birth of the first child), when our sample constitutes 276 couples. At this time the newborn child is less than 1 year old and couples become “at risk” of experiencing a second pregnancy. At time 5, only 25 couples remain in the sample, forcing a stop to the analysis (see Figure 4.1). The dataset is prepared for an Event History Analysis, with retrospective information on the previous year available for each time period.

**Figure 4.1. Description of the sample**



## 4.5 Hypotheses

The main research question is whether adjustment to parenthood in terms of functioning of the relationship and work-family reconciliation can influence the timing of the transition to a second child. According to the literature, marital adjustment seems to be a powerful predictor of the transition to parenthood. At the same time, the literature says that the arrival of the first child decreases satisfaction with the relationship with the partner, while a subsequent increase seems to be a precondition for the transition to higher parity. I expect that *(H1) a difficult marital adjustment, both for women and men, lengthens the time before the transition to the second child.*

As said in the literature review, marital adjustment can be the outcome of a wider adjustment process that happens after the transition to parenthood: unmet expectations and unsatisfying situations in family and work life can reduce marital satisfaction. In this sense, marital adjustment can be seen as a precondition for a quicker or slower transition to the second child, but also as an intervening factor between the other adjustment and anticipation processes and the outcome variable. Therefore, even if a specific hypothesis for marital adjustment can be formulated, we need to control for the effect of the adjustment processes (in work and family life) on the effect of marital adjustment.

Thinking again about the work/family-related adjustment process, it may be expected that a progression to a second child would be easier for couples satisfied with the division of domestic tasks and their individual work commitments. On the contrary, an absence of coordination of the interests of the partners (in terms of preferences and enjoyment of work and family life) after the first childbirth should lead to a postponement of the second child. In this sense, *(H2) difficulties in adjustment in the family and work spheres would reduce the likelihood of proceeding quickly to a second pregnancy.*

Sometimes, the arrival of the first child generates problems because parents have to face unexpected difficulties in parenting or because their ideal of parenthood does not match the real situation. As discussed in the literature review, anticipation of the difficulties of parenthood is expected to impact on the transition to the second child. I expect that *(H3) facing unexpected difficulties in parenthood after the arrival of the first child reduces the probability of experiencing a second pregnancy for both partners. The shortest transition should be observable for couples where both the partners predicted parenthood difficulties well.*

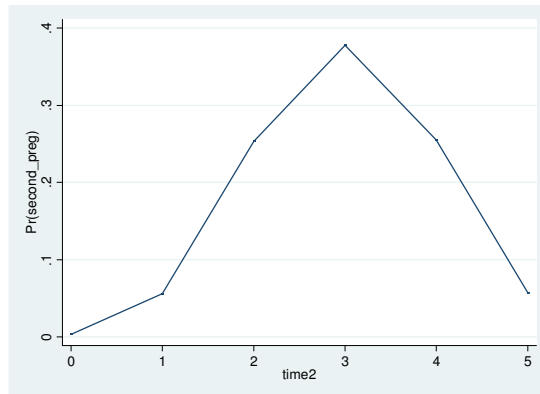
Finally, according to Miller and Pasta's TDIB model (1995a), I hypothesize that the arrival of the first child and the subsequent adjustment process to parenthood might impact first on a couple's fertility expectations and only in a second step on their fertility behaviour. As a consequence, I test whether *(H4) where fertility expectations are decreasing, the arrival of the second child is delayed.*

## **4.6. Dependent variable and main predictors**

### *Transition to the second child as dependent variable*

In this study, transition to the second child is operationalized as the occurrence of the second pregnancy: it is a dummy variable that takes value 1 in the year of the occurrence of the second pregnancy and 0 otherwise. In Figure 4.2, looking at the probability distribution of the dependent variable since the year of the birth of the first child, we can see that the peak is around time 3, when the first child is already 2 years old.

**Figure 4.2. Discrete time hazard model for the transition to the second child including the main effect of time<sup>17</sup>.**



*Anticipation of difficulties in parenthood.*

People anticipate life events when they create expectations about how the different aspects of their lives will change after the occurrence of the event. When anticipation does not match with the reality after the occurrence of the event, it might change individuals' intentions. In HILDA, the indicator of poor anticipation is collected after the arrival of the first child, where parents declare they face unexpected difficulties in parenthood. We expect to find this indicator negatively associated with the transition to the second child. The HILDA question about unexpected difficulties<sup>18</sup> in parenthood is collected annually after the year of birth of the first child. Individuals are asked their level of agreement with the sentence "being a parent is harder than I thought", on a 7-point scale (1 = completely disagree; 7 = completely agree).

The first evidence (see Figure 4.3) from the sample seems to confirm that more women than men face unexpected difficulties in parenthood (Dempsey, 1997; Craig and Siminski 2010), and the proportion of women experiencing unmet

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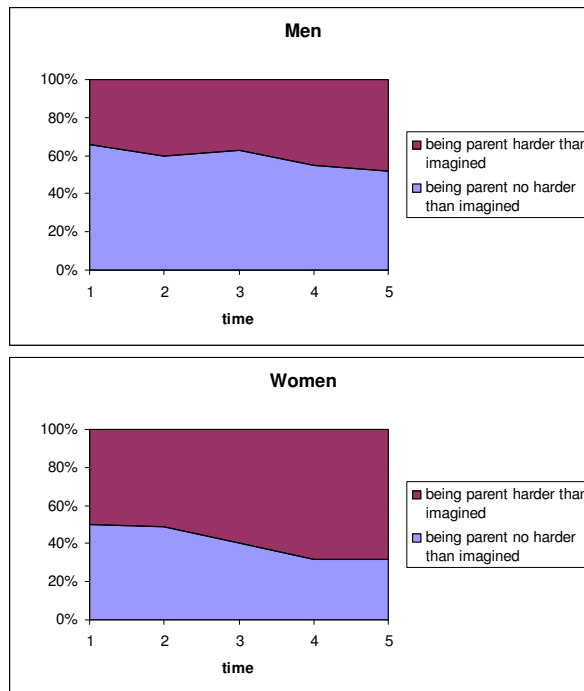
<sup>17</sup> Time here has been introduced in the model in its quadratic transformation. When fitting and comparing the linear, quadratic and cubic effects of time on the probability of the second pregnancy it was found that the smallest deviation statistic is for the cubic model, but superior fits may be less important than supporting the inclusion of an additional parameter. For the sake of simplicity, I decided on the quadratic effect.

<sup>18</sup> The literature provides several indicators of unmet expectations in parenthood: Kalmuss *et al.* (2000) underline that more specific indicators should be preferable. Unfortunately, HILDA provides just one general indicator for unmet expectations.



expectations increases with the passing of time among couples remaining with one child.

**Figure 4.3. Unexpected difficulties in parenthood after the birth of the first child (Couples with the first child born between 2001 and 2009)**



Note: Harder than imagined: Unexpected difficulties >4; No harder than imagined: Unexpected difficulties <=4

*Adjustment to parenthood.*

The occurrence of the first pregnancy changes the conditions for the previous satisfactory equilibrium in the couple. In particular, we might expect that a couple would need to adjust their satisfaction in the family, work and couple dimensions before deciding to go for a second child. HILDA provides indicators of adjustment in the three spheres; those that are not highly correlated are selected (see Table 4.7). The variables for adjustment in family life and in working life (except for job satisfaction) are specifically answered in the HILDA questionnaires only by individuals with children.

**Table 4.2. HILDA indicators for adjustment in the family, work and couple dimensions.**

<b>Covariate</b>	<b>Operationalization</b>
<i>Adjustment in family</i>	I do more than my fair share of childcare, scale 1 (completely disagree) to 5 (completely agree); I do more than my fair share of housework, scale 1 (completely disagree) to 5 (completely agree).
<i>Adjustment in work</i>	Working time is less enjoyable, scale 1 (completely disagree) to 7 (completely agree); I had to turn down work opportunities, scale 1 (completely disagree) to 7 (completely agree); Satisfaction with my job, scale 0 (completely unsatisfied) to 10 (completely satisfied).
<i>Marital adjustment</i>	Satisfaction with the relationship with my partner, scale 0 (compl. unsatisfied) to 10 (compl. satisfied).

Concerning adjustment in the *family*<sup>19</sup> *sphere* and *work sphere*, all the variables have been re-operationalized in two or three categories. The two variables for doing one’s fair share of childcare and housework are codified as nominal variables with the following categories:

- 1) Declaring one does more than one’s fair share of housework/childcare: if the original variables score more than 3;
- 2) Declaring one does less than one’s fair share of housework/childcare: if the original variables score less than 3;
- 3) Declaring one does one’s fair share of housework/childcare: if the original variables score 3.

The variables for adjustment in the *work sphere* have also been re-operationalized: “I had to turn down work opportunities” and “work time is less enjoyable” take value 1 if individual answers are more than 4, and take value 0 otherwise. For the trend in satisfaction with one’s job, the new variables are categorized as increased satisfaction with one’s job, decreased satisfaction with one’s job and stable satisfaction with one’s job.

<sup>19</sup> It is not possible to control for the couple’s share of both the amount of housework and childcare: while this might be possible in a rough way for the time dedicated to housework (without any specification of the kind of housework they do), it does not make sense for childcare, as this variable also includes also time spent playing with children. Moreover, Craig and Siminski (2010) find that the share of amount of housework in Australian families with one child does not affect the probability of having a second child.

### *Fertility expectation.*

Fertility expectations are surveyed every year through the question “How likely are you to have a child/more children in the future?”, on a response scale from 0 (very unlikely) to 10 (very likely). It is supposed that the level of fertility expectation at time t-1 can affect the probability of experiencing the transition to the second child at time t. As fertility expectations might change as a consequence of the adjustment process to parenthood, their trends are also considered relevant factors for understanding the timing of the arrival of the second child. In particular, the trend is defined as the difference between fertility expectation at time t and t-1, and it varies on a scale from -10 to 10.

### *Personality traits.*

Personality traits are important controllers: they allow the genetic predisposition of individuals to react to life events and adjust their expectations and behaviours to be taken into consideration (at least partially). In this sense they shape both latent fertility motivation and the way situational factors can modify individuals' fertility intentions, expectations and behaviour.

The questions for measuring personality traits in HILDA appear only in two waves (waves 5 and 9). HILDA includes the 36 items of the TDA Five Factors Personality Inventory. All five scales associated with the five factors reach adequate levels for normality, construct validity, internal consistency, and external correlates (Losoncz, 2009). Whether individuals experiencing a second pregnancy within 5 years of the birth of the first child have different psychological characteristics compared to those remaining with one child is tested<sup>20</sup>. Men with a second child have a higher score for the agreeableness trait compared to the other men (with  $p \leq 0.05$ ). Mothers who experience the second pregnancy in the five years after the first pregnancy score higher on the conscientiousness trait compared to mothers staying with one child (with  $p \leq 0.05$ ).

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<sup>20</sup> Using a two-group t-test for mean comparison, with equal variance.

## 4.7. Method: the log-logistic hazard model

The dependent variable – transition to the second child – is modelled using a log-logistic regression. The choice of a parametric survival model is mainly due to the sample size, which is too small to allow a Cox (non-parametric or semi-parametric) hazard model or a non-parametric discrete time hazard model. Even though the data structure suggests a piecewise or a discrete time model, many more cases are needed to estimate the hazard for each time span and for each covariate (Singer and Willet, 2003). Nevertheless, the use of a continuous specification for time is legitimised by the nature of the process: the probability of experiencing a second pregnancy can be interpreted as being continuous in time, even though the data are only available on an annual basis (Tavares, 2010).

Regarding the shape of the function, we have already seen that the probability is not monotonically distributed (see Figure 4.2). The log-logistic parameterization is the most commonly used and is recommended for studying demographic events such as divorce, marriage, and childbirth (Blossfeld *et al.*, 2007). It also allows testing the hypothesis of a monotonic vs. non-monotonic hazard function, making log-logistic distribution more flexible than other types such as Gompertz or Weibull<sup>21</sup>, which only allow monotonic distribution of the hazard.

The survival function of the log-logistic distribution is (Blossfeld *et al.*, 2007)

$$G(t) = 1/[1+(at)^b],$$

while the rate function is:

$$r(t) = (ba^b t^{b-1}) / [1+(at)^b],$$

where  $a = \exp(-\alpha_t X)$  and  $b = \exp(-\beta_t X)$ , with  $\alpha$  and  $\beta$  being the estimated coefficients. In particular, if  $b \leq 0$  the function is monotonically decreasing, while if  $b > 1$  the function is bell-shaped, with increasing and then decreasing

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<sup>21</sup> The three models, Gompertz, Weibull and Log-logistic, were tested and compared on the basis of their AIC. Log-logistic was confirmed to fit the data better than the other models.

hazard. The estimated empty log-logistic hazard model for the transition to the second child in this case is reported in Table 4.3.

**Table 4.3. Empty Log-logistic hazard model for the transition to the second child**

	<i>Coeff</i>	<i>Std.Err</i>
_cons	1.1524***	.0423
ln_gam	-1.1474***	.0717
gamma	.3174	.0227

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$

Note: N=667

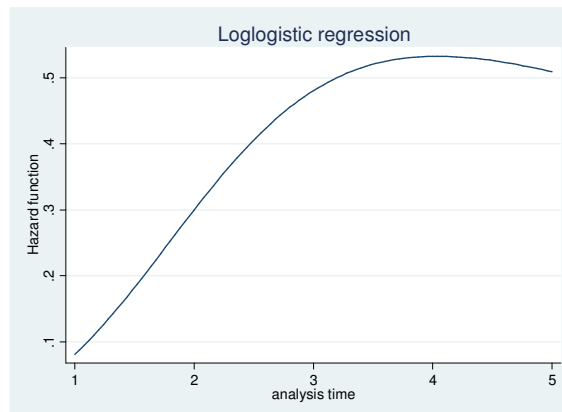
In order to understand the effect of the coefficient on the probability of the transition we need to calculate

$$a = \exp(- 1.1525) = 0.3158$$

$$b = \exp(1.1473) = 3.1497.$$

As expected,  $b > 1$ , confirming that the hazard function is bell-shaped (Figure 4.4), with the hazard strongly increasing until time 3.

**Figure 4.4. Log-logistic estimates (empty model) for the transition to the second child.**



The main covariates are gradually introduced into the model. The first covariates introduced are personality traits and some control variables (Table 4.4), namely partners' ages as continuous variables, educational level (using three dummy variables for first, second and third level), occupational status (dummy variable:

employed vs. unemployed/inactive)<sup>22</sup> and high-status homogamy of couples with dummy variables for whether both partners had tertiary education, both had low education, she had higher education than him, he had higher education than her.

## 4.8. Results

The results will be presented in the following way: I start by looking at the effect of personality traits to see if any intrapersonal characteristics relate to taking a quick decision to have a second child. Then, I gradually include variables related to the anticipation and adjustment to parenthood process. First, I consider the effect of unexpected difficulties and marital adjustment, separately and in conjunction. Second, I include the process of adjustment in work and family life after the arrival of the first child as conditions impacting on the timing of the arrival of the second child. Finally, I test the TDIB model to see if fertility expectations behave as an intermediate factor between adjustment to parenthood and the timing of the decision to have an additional child.

### *Personality traits.*

Table 4.4 presents the results of a log-logistic hazard model for the time of the second pregnancy, including all the control variables and the personality traits of both the partners. Positive coefficients indicate that more time is needed for the transition to the second child, while negative coefficients accelerate the time for the transition. Compared to Tavares' results (2010), the findings of this study are more specific to some personality traits, both for women and men. It emerges that higher values in agreeableness for men and in emotional stability for women

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<sup>22</sup> I consider unemployment and inactivity together due to the favourable condition of the Australian labour market during the period under study, where the unemployment rate was very low (in 2005 the total unemployment rate in Australia was around 5%; it was below 4.8% for men and 5.5% for women. Source: Australian Bureau of Statistics).

reduce the time needed for the transition to the second child<sup>23</sup>. On the contrary, agreeableness for women lengthens the time needed for the transition.

**Table 4.4. Log-logistic hazard model for the time to the second pregnancy including partners' personality traits**

	<i>Coeff.</i>
Men: extraversion	-0.01
Men: conscientiousness	0.04
Men: emotional stability	-0.02
Men: agreeableness	-0.12***
Men: openness	0.03
Women: extraversion	0.01
Women: conscientiousness	-0.05
Women: emotional stability	-0.08**
Women: agreeableness	0.07**
Women: openness	0.05
<b><i>Control variables</i></b>	
Age (women)	0.01
Age (men)	0.01
High homogamy	-0.03
He more educated	0.04
She more educated	-0.04
Employed (women)	0.11
Employed (men)	-0.26
Cons.	1.33
ln_gam	-1.30

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$

Note: N=667

#### *Marital adjustment and unexpected difficulties in parenthood.*

Subsequently, I add the covariates for the anticipation process and marital adjustment. The effect of individuals' expectations of having to face unexpected difficulties in parenthood gives significant results only for men, increasing the time before the arrival of the second child ( $p \leq 0.05$ ) and keeping the coefficient in Table 4.4 unchanged. Nevertheless, if I include couple variables for the effect of the anticipation process (see "Unexpected difficulties" in Table 4.5), the effect of the individual variable disappears. As expected, the transition to the second child becomes more difficult if both the partners are experiencing unexpected difficulties in being first-time parents. Compared to the situation in which both

<sup>23</sup> Negative coefficients mean less time is required for the occurrence of the event compared to the reference category. On the contrary, positive coefficients indicate more time is required for the occurrence of the event.

partners' expectations about parenthood are met, when the woman is the only one facing unexpected problems the time between the first and the second childbirth increases. The effect of agreeableness for men and women is still significant.

In the "Marital Adjustment" model (Table 4.5), the main effects of marital adjustment have been added. In particular, I include the effect of the level of satisfaction with the relationship with the partner, the trend in satisfaction and the trend combined with the level of satisfaction, both for women and men. Some gender differences can be observed. Couples in which women gain relationship satisfaction after the arrival of the first child experience a quicker transition to the second child. Nevertheless, the trend effect seems to be affected by the quality of the relationship: even with a decreasing path in marital satisfaction, the presence of high satisfaction with the relationship with the partner for the woman is associated with a quick transition to the second child. On the men's side, only high-level and stable trends in relationship satisfaction are related to a short transition.

In the "Marital adjustment + Unexpected difficulties" model (Table 4.5), the inclusion of the effects of both marital adjustment and anticipation reveals some new aspects of the marital adjustment effect, in particular for men. While the significance of the anticipation coefficients does not change, all the variables for marital adjustment become significant and the coefficients increase. The stable pattern is again the most favourable one for a quick transition to a second child.



**Table 4.5. Log-logistic hazard model for the time to the second pregnancy with personality traits, unexpected difficulties and marital adjustment.**

	Unexpected Difficulties	Marital Adjustment	Marital Adj. + Unexpected Diff.
	<i>Coeff</i>	<i>Coeff</i>	<i>Coeff</i>
<b><i>Marital Adjustment (WOMEN):</i></b>			
Satisfaction with relationship with partner (SRP)	-	0.09*	0.08*
Decreasing SRP	-	1.27***	1.03***
Stable SRP	-	1.38***	0.86*
Decreasing SRP * SRP	-	-0.17***	-0.14***
Stable SRP * SRP	-	-0.16***	-0.11**
<b><i>Marital Adjustment (MEN):</i></b>			
Satisfaction with relationship with partner	-	-0.10*	-0.12**
Decreasing SRP	-	-0.83	-0.98
Stable SRP	-	-1.06*	-1.48***
Decreasing SRP * SRP	-	0.09	0.11*
Stable SRP * SRP	-	0.10	0.15***
<b><i>Anticipation: unexpected difficulties</i></b>			
She unexpected difficulties; he not	0.16*	-	0.15*
He unexpected difficulties; she not	0.12	-	0.13
Both unexpected difficulties	0.21***	-	0.18***
<b><i>Personality traits:</i></b>			
Women: extraversion	0.04	0.04	0.05
Women: conscientiousness	-0.05	-0.04	-0.04
Women: emotional stability	-0.03	-0.08**	-0.03
Women: agreeableness	0.05*	0.07**	0.05*
Women: openness	0.03	0.02	-0.01
Men: extraversion	-0.01	0.02	0.01
Men: conscientiousness	0.01	0.04	-0.01
Men: emotional stability	-0.01	-0.04	-0.01
Men: agreeableness	-0.07**	-0.08*	-0.06*
Men: openness	0.0105	-0.01	-0.01
<b><i>Control variables</i></b>			
Age (women)	.0071	0.02**	0.01
Age (men)	.0063	0.01	0.01
High educational homogamy	-0.04	0.01	-0.01
She more educated	-0.02	-0.02	0.01
He more educated	0.05	-0.02	-0.01
Employed (women)	.0938	0.10	0.08
Employed (men)	-.2427	-0.31	-0.27
Cons. (a)	1.07***	1.39**	1.65***
ln_gam (b)	0.20***	-1.41***	-1.69***

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$   
 Note: N=667

*Adjustment in family and work life.*

In Table 4.6, the covariates for adjustment in the work and family spheres have been included. Agreeableness for men is confirmed as a strong factor for understanding a quick transition to the second child. At the same time, men perceiving that they do most of the housework and childcare tasks increases the time needed for the couple to proceed to the second child (see “Family Adjustment” in Table 4.6). When controlling for marital adjustment, the effects do not disappear, except for men doing more than their fair share of childcare.

The “Work Adjustment” model (Table 4.6) introduces the effect of adjustment in working life for dual earner couples. In this case, the main effects are on the woman’s side. A decrease in job satisfaction, such as having to turn down some work opportunities after the arrival of the first child, lengthens the couple’s transition time to the second child. Here, women’s personality traits also become significant: in particular, emotional stability and conscientiousness reduce the time to the second childbearing, while agreeableness increases it. Again, if the covariates for marital adjustment are included in the “Work Adjustment” model, the effect of women’s job satisfaction increases and remains significant, while women enjoying working time less makes the interval between the first and the second pregnancy shorter.

*Testing Miller and Pasta’s TDIB model.*

In order to understand whether fertility expectations absorb the effect of the adjustment process as an intermediate factor between adjustment to parenthood and fertility realization, I refer to Miller and Pasta’s fertility Traits-Desires-Intentions-Behaviours model (1995a). For this purpose, fertility expectations are introduced as a covariate into the previous models<sup>24</sup>. In particular, both the level of fertility expectations (scaled from 0 to 10) and the trend between time  $t$  and  $t-1$

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<sup>24</sup> The models are included in Appendix C. The same control variables are included: as the coefficients of the main controllers are not significant and very similar to those in Tables 5 and 6, they are not reported.

(decrease/increase (ref.)/stable) are included. While some results are found for the fertility expectations level, no results emerge for the trend in fertility expectations.

Adding the effect of fertility expectation to “Marital Adjustment”, all the coefficients for the latter increase and stay significant, while a higher level of fertility expectation among women decreases the time needed to have a second child. If fertility expectations are included in “Marital Adjustment + Unexpected difficulties”, unexpected difficulties in parenthood are no longer significant. We might thus consider that the negative effect of unexpected difficulties on fertility expectation can lengthen the time for the transition to the second child.

After controlling for satisfaction with family commitment (“Family Adjustment” model), women’s fertility expectations are more important than men’s in fertility planning. As for the effects of family covariates on adjustment, the results do not change in terms of significance, while doing more than their equal share of housework for men decreases its effect, and doing more than their equal share of childcare for men increases its effect. When the effect of fertility expectation in the “Work adjustment” model is introduced, all the previously significant covariates for women lose their negative association with the probability of experiencing a second pregnancy, suggesting at least a partial mediating effect of fertility expectation.

To sum up, it would seem that only women’s fertility expectations are related – although not strongly – to the decision to have a second child. The weak link between fertility expectation and realization is not a novelty (Schoen *et al.*, 1999). In a model with only fertility expectations and control variables, high fertility expectations in both women and men reduce the time gap between the first and the second child, but the effect is still small (0.035\* for men and 0.043\*\* for women). Based on these results, we can suppose that while part of

the effect of the adjustment to parenthood process is mediated by fertility expectations, there is still part of the effect that passes directly to fertility realization. Fertility expectations seems to be a confounding factor for the relationship between marital adjustment and the transition to a second child. In fact, marital adjustment seems to have a clearer effect when fertility expectation is controlled for, while it reduces the explicative power of fertility expectation. It seems that the relationships among the three variables (marital adjustment, fertility expectations and the transition to the second child) follow partially parallel lines. Moreover, looking at the results in the model without fertility expectations, the relationship between marital adjustment and the time for the transition to the second child are different for women and men. As expected, if we control for expected fertility, the relationship becomes clearer: couples in which the women experience a loss in marital satisfaction postpone the transition to the second child, while couples where men experience stability in their relationship tend to go quickly to the second child.

**Table 4.6. Log-logistic hazard model for the time to the second pregnancy adjustment in the work and family spheres (Couples having the first child between 2001 and 2009)**

	Family Adjustment <sup>a</sup>	Work Adjustment <sup>b</sup>
	<i>Coeff</i>	<i>Coeff</i>
<b>Family Adjustment (WOMEN)</b>		
Fair share housework	0.02	-
More than fair share housework	0.05	-
Fair share childcare	0.18	-
More than fair share childcare	0.17	-
<b>Family Adjustment (MEN)</b>		
Fair share housework	-0.07	-
More than fair share housework	0.45***	-
Fair share childcare	0.05	-
More than fair share childcare	0.1965*	-
<b>Work Adjustment (WOMEN)</b>		
Satisfaction with work	-	0.04
Stable Sat. Work	-	0.14
Decrease Sat. Work	-	0.25*
Working time less enjoyable	-	-0.09
Turn down work opportunities	-	0.05***
<b>Work Adjustment (MEN)</b>		
Satisfaction with work	-	0.02
Stable Sat. Work	-	0.01
Decrease Sat. Work	-	0.18
Working time less enjoyable	-	-0.02
Turn down work opportunities	-	-0.04
<b>Personality traits:</b>		
Women: extraversion	-0.01	0.04
Women: conscientiousness	-0.05	-0.08*
Women: emotional stability	-0.05	-0.07**
Women: agreeableness	0.04	0.09***
Women: openness	0.04	0.04
Men: extraversion	-0.01	0.03
Men: conscientiousness	0.03	0.03
Men: emotional stability	-0.01	-0.07
Men: agreeableness	-0.09***	-0.14***
Men: openness	0.01	-0.01
<b>Control variables</b>		
Age (women)	0.01	0.01
Age (men)	0.01	0.05
High educational homogamy	-0.04	0.01
He more educated	-0.04	0.11
She more educated	-0.045	0.01
Employed (women)	0.12**	-
Employed (men)	-0.24	-
Cons. (a)	1.2097**	1.008*
ln <sub>gam</sub> (b)	-1.5589***	-1.3931***

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$  Note: <sup>a</sup> N=667 (all couples); <sup>b</sup> N=361 (dual earner couples)

## 4.9 Conclusion

By analysing HILDA data on a sample of Australian couples of first-time parents between 2001 and 2009, this paper has assessed the role of adjustment to the first parenthood on the timing of the transition to the second child. In particular, adjustment to the arrival of the first child was operationalized as gains and losses in the couple's commitment to the couple, family and work. Consistently with McDonald (2000; 2013) and Miller-Torr and Short's (2004) conclusions, it has been found that in an institutionalized context of gender inequality, such as Australia in that period, satisfaction with the negotiated gender roles in the family is a relevant factor for understanding fertility choices. In particular, perceived difficulties in reconciling work and family after the transition to the first parenthood represent an obstacle to a quick progression to higher fertility, while being cooperative and having a consolidated satisfactory relationship reduce the time for having the second child.

The results also support the idea that there might be a link between the micro level of adjustment to parenthood and the institutional structure that underlies new parents' opportunities to reconcile work and family. In fact, it seems that the negative effect of the adjustment to parenthood on the time for the transition to the second child is stronger in those spheres where institutions do not support the involvement of the individual. In particular, perceived difficulties in adjustment in the family for fathers and in the labour market for mothers are associated with a longer time before experiencing the second pregnancy. Nevertheless, women's high fertility expectations and the partners' intrapersonal characteristics can facilitate the transition to the second child. Especially in dual-earner couples, in which the mother faces more difficulties in reconciling care and work commitments than the father, strong fertility expectations and marital satisfaction on the part of the woman reduce the negative effect of difficult reconciliation on the time for the transition to the second child. This result might represent a

confirmation of McDonald and Moyle's (2010) explanation of why Australia still has a high fertility rate even in a context of perceived gender inequality – that having more than one child is a strong and widespread value in Australia; it keeps women's fertility intentions high and this leads families to have a second child even in a context of unfavourable family policies.

Additionally, the results suggest that some personal characteristics of the partners can facilitate the couple in overcoming parenthood difficulties and making the transition to the second child. Perception of the difficulties of parenthood partly depends on the personality of the individual: where policies do not provide equal possibilities to easily overcome these difficulties, some individuals have more chance than others of overcoming stressful situations because of their genetic predispositions. In particular, a father's predisposition to be cooperative seems to be helpful, at least in a context that does not actively support the father's involvement in child caring and family tasks. Obviously, personality cannot explain the transition to the second child: nevertheless, it is an important control for understanding the mechanisms of interaction between adjustment and fertility. As a consequence, the significant positive effect of a few personality traits in parents, which I have described as “protective” for fertility realization – such as being agreeable for fathers and emotionally stable for mothers – might mean that the chances of experiencing an easy transition to the second child are not equally spread among individuals, and this could be due to unequal institutionalized support for couples with children.

From a policy perspective, the struggle that new parents face after the birth of the first child seems to be unequally distributed in Australia: the absence of universal support to reconcile mothers' and fathers' commitments to the family and the labour market makes the partners' abilities to maintain a well-functioning relationship and to manage difficulties a discriminatory factor for a quick transition to the second child. The development of policies that favour the reconciliation of parents after the first childbirth might reduce the costs associated with the loss of subjective wellbeing after the

transition to the first child and highlight the opportunities for self-fulfilment in both work and family after reaching the intended family size.



# Conclusion

## **V. Main contributions of the study**

The study highlights the role of the subjective experience of the first parenthood on couple's decision to have a second child. The choice of the object was particularly driven by the gap in the existing demographic literature about the effect of subjective wellbeing on fertility expectations and behaviours (Billari, 2009). Moreover, there is also a policy relevance in understanding under which (subjective) conditions couples realize the transition to the second child. In fact, according to the demographic theories on fertility, having more than one child is the precondition to keep the total fertility rate higher or close to the replacement level.

In my study I have adopted a multi-disciplinary approach, that encompasses both psychological and sociological theories. Undertaking this choice, I was able to follow the entire process, from the changes in couple's subjective wellbeing as consequence of the arrival of the first child, to the effect of adjustment to parenthood on couple's decision to have the second child. As far as I know, this study represents the first effort to encompass the two directions of the relationship between subjective wellbeing and fertility: the consequences of life events on subjective wellbeing, and the effect of subjective well being on the probability to experience life events.

In the following paragraphs I discuss the main results, highlighting their contributions to the theoretical debate on fertility, and suggesting possible important considerations for policy makers. Finally, the main limits and possible further development of the study are presented.

## **V.I The contribution to fertility studies.**

### **V.I.I Combining psychological and sociological approaches.**

This study succeeded in offering a combination of psychological and sociological theories on fertility at micro level. First, it takes into account the traditional sociological approach to fertility that considers institutionalised gender roles as relevant explicative factors (McDonald, 2000; 2013; Esping-Andersen, 2009). Second, gender roles have been interpreted under the perspective of subjective wellbeing and psychological processes. More specifically, on the one hand, I referred to the psychological approach under the Dynamic Equilibrium Theory (Headey and Wearing, 1989; Headey, 2006), focused on the “event to subjective well being” relation; on the other hand, I looked at the sociological and demographical relationship from “subjective well being to event occurrence”, here interpreted under the Theory of Planned Behaviour (Ajzen 1985; Ajzen and Klobas, 2013) and in particular its demographical application with the Traits-Desires-Intentions-Behaviours model (Miller and Pasta, 1995a). Following Miller and Pasta (1995b), I interpret the fertility decisions as something not given at the beginning by individual’s motivations, but as a sequential process where the arrival of a previous child can modify the effect of the motivations on fertility expectations and realization. The birth of a previous child strongly modifies individuals’ experience about their life: in particular, Heady (2006) underlines how life events impact on individual’s subjective wellbeing, and how individuals need some time to adjust to the life event, depending on their personality and the current life conditions. Matching these two theories, I have been able to better understand which processes might be at work behind the subjective conditions under which couples realize (or not) their fertility intentions, in some way improving Miller and Pasta’s TDIB (1995b) results. We cannot fully understand

individual's decisions without considering individuals' personality and subjective experience of the daily life.

About intrapersonal characteristics, this study confirms their relevant role among the determinants of subjective wellbeing. Psychological theories on subjective wellbeing recognize the central role of personality in determining the average level of subjective wellbeing people experience, and the way people react to life events in terms of changes of subjective well being (Soons and Liefbroer, 2009; Headey, 2006). The contribution is given by enlarging this perspective to the idea that, as a consequence, personality matters also:

1. *as structure that shapes the way through which individual adjusts to life events*: we found that individuals with specific traits of personality better adjust to childbearing and better fit with her parents' adjustment process to parenthood. We saw that high level on Agreeableness for fathers and Emotional Stability for mothers support the relationship functioning after the transition to the first parenthood (Chapter 2). We interpret these personality traits as protective factors that help couples in increasing fathers' cooperation and reducing mothers' stressful consequences of the childbirth.
2. *as force that shapes individual's decisions*. In this case, personality traits can be interpreted as preconditions for understanding fertility motivation and intentions, and the progression to the second child. The results of this study suggest that, among Australian couples, personality traits are not related to first time parents' changes in their expectations about having a second child, at least in the short term after the transition to parenthood (Chapter 3). Nevertheless, the same personality traits that are protective in terms of couple's relationship functioning (Agreeableness for men and Emotional Stability for women; see Chapter 2) after the arrival of the first child are also related to a quicker transition to the second child (Chapter 4). This suggests the existence of a close relationship between the way

people adjust to parenthood and the how they make fertility decisions. In particular, what makes couples more able to adjust to parenthood difficulties, are also the bases of their fertility behaviours.

The way through which this study improves the knowledge on fertility behaviours regards the possibility to answer the question on how the psychological mechanisms move fertility decisions, not just as results of personality traits or subjective wellbeing effects, but as the final step of a chain of influences from personality to subjective wellbeing, to fertility expectations and realizations.

Following the idea of an integrated perspective between psychological and sociological determinants of fertility behaviours, Chapter 2 is dedicated to understanding the changes that the arrival of the first child leads in new parents' subjective wellbeing. Previous studies found that the transition to parenthood is associated with a loss of marital adjustment (Shapiro *et al.*, 2000; Twenge *et al.* 2003; Doss *et al.* 2009; Keizer, 2013). Accordingly to their results, I found that the arrival of the first child affects negatively one of the stronger indicators of marital adjustment: partners' satisfaction with their relationship. Yet, I increase the knowledge of this relation for at least two reasons. First of all, I found an association between the loss in relationship satisfaction and the fact that parents are experiencing difficulties to adjust work and family life to the arrival of the child. The struggle for managing the reconciliation process in the couple are sometimes source of marital dissatisfaction, especially for dual-earner couples that reduce their job commitment for facing family priorities. Second, following this first result, I looked to the fact that the same processes that were challenging couple's relationship functioning, might be responsible for a decreasing expectations to have a second child. In Chapter 3 and Chapter 4, I found confirmation that the adjustment to parenthood impacts on both reconsidering fertility expectations and the time for the realization of the second pregnancy. In

particular, marital adjustment seems to be a strong predictor of both the changes of couple's fertility expectations and the timing for the transition to the second child. These results highlight the importance to consider the relationship functioning as a key variable to understand the bargaining fertility decisions in the couple. Having a second child is linked to how well couple adjusts to the first parenthood, and to the ability of the parents to keep a well-functioning and satisfying relationship. Moreover, results suggest that the probability to experience a positive marital adjustment depends on several factors, that differ for women and men.

### **V.I.II New parents' difficult reconciliation process: consequences on fertility**

How does women and men's first parenthood impact on couple's further fertility decisions? It is quite recent the attention that policy makers are giving to the active role of both mothers and fathers in parenting and fertility decisions. It goes hand in hand with the discovery that men's fertility desires and intentions weight the same as women's on fertility decisions (Thomson and Hoem, 1988; González, Domínguez and Luppi, 2013). Even if women tend to consider their desire more important than the partner's, men weight their intentions as equal to the partner's intentions: the result is that where partners disagree about having children they are more likely to forego or postpone the arrival of the child (Miller, Severy and Pasta, 2004).

In this study there are important differences between Australian mothers' and fathers' reactions to the arrival of the first child, both in terms of adjustment to parenthood and subsequent fertility intentions. I also found that these differences matter on couple's decision to have a second child. I can start to say under which results women and men are similar. I found that for both of them, the loss of relationship satisfaction seems to be linked also to a decline in fertility expectations. However, women and men seem to differ in the kind of life

dimensions involved in the adjustment process: maybe because the changes in subjective wellbeing mirror the importance of certain dimensions in parents' life. In particular, being unsatisfied with the current work or family life after the first childbirth increases couple's conflict: only dissatisfaction with those conditions of life that are relevant for couple's wellbeing decline marital adjustment. In this sense, these same conditions are also particularly important for bargaining a second child. These results might picture the unsolved tension between the need for specialization and the consequent frustration of new parents' preferences, especially for dual-earner couples. Parents have to face the increased amount of domestic tasks, reducing their commitment and their enjoyment in their job. On the family side the increase in fertility expectations is associated to a specific path of division of the domestic tasks: women should be more involved in childcare, men in housework (Chapter 3). Nevertheless, this division might cause conflict in the couple as it seems to reduce marital adjustment (Chapter 2). On the work side, renunciation to job commitment in dual-earner couples seems to be a prerequisite for both men and women to plan a second child, even if reducing their relationship satisfaction

On the side of the realization of the transition to the second child, it seems that the presence of conflicts lengthens the time for having the second child. Not only a decline in marital adjustment implies more time for making the transition to the second child, but gender-specific difficulties in reconcile family and work negatively affect the transition. In particular, women's dissatisfaction in the work dimension and men's perception of doing much more than the fair housework and childcare increase the time for having a second child (Chapter 4).

To sum up, in our sample the adjustment to first parenthood significantly reduces marital adjustment and increases the time for the transition to the second child. If a conflict exists in the way couple bargains partners' contribution to family tasks, it mainly regards the difficult reconciliation of family and work, and it is particularly relevant for dual-earner couples, where parents are usually less

specialized. The subjective costs of having the first child are different for mothers and fathers, maybe because in the Australian context the socialization and the institutions support gender role specialization: mother is the primary caregiver, men is the breadwinner. The result is that having a second child requires a difficult work in the couple to re-balance expectations about parents' commitment in family and work, especially in dual-earner couples: finding a new satisfactory reconciliation is not out of conflict, and it might need long time to be bargained. The fact that the longer adjustment process regards the unconventional involvement of mothers and fathers respectively in labour market and household chores, suggest that the problem is both cultural and political. On the one hand, especially on men's side, having a career-oriented partner and being strongly involved in household tasks increases the chance for relationship dissatisfaction and lengthens the time couple needs to have a second child. On the other hand, mothers dissatisfied with the possibility to enjoy their work career and/or abandoning the labour market at the transition to parenthood increase their reasons for marital dissatisfaction and the time for experiencing the second pregnancy. At the same time, all these processes of re-adjustment of preferences and priorities seems to be necessary for increasing fertility expectations and planning a second child.

## **V.II Policy implications**

Because we do not have comparative results, but only on the Australian case, we cannot derive any conclusion about the effect of the Australian family policies until 2009 on the changes in individuals' fertility expectations after the transition to the first child. Nevertheless, this study highlights which are the important dimensions of adjustment after the transition to first parenthood, mapping the subjective costs-opportunities of parenthood in family and work. I found that mother's employment and father's involvement in family tasks are the two primary sources of conflict and delay of the second pregnancy. Especially we see how being career oriented women and mothers staying employed after the arrival

of the first child reduce the chance for the man to be satisfied with the couple's relationship. At the same time, renouncing to job opportunities for both the partners, and be more dedicated to the family seems to be the way for maintaining high fertility expectations, underline the importance to find an (even if difficult) equilibrium in these domains. Following these results, I argue that it might be interesting to explore more in-depth which are the consequences of the lack of adequate policies for working parents - combined with the institutionalized support to gender role specialization - on couple's difficulties to reconcile after the transition to parenthood. The idea that policies might reduce the negative impact of the adjustment to parenthood on couple's relationship functioning, and as a consequence on the time for having a second child, should be considered for further development of this study. Policies that might work in this sense would make easier the reconciliation between family and work for both the parents, allowing mothers and fathers to be committed as parents and workers. The solution might not be the gender specialization in care and labour market, as it does not allow satisfactory mixed paths between being family oriented and career oriented, making parental experience less satisfactory and more conflicting especially for dual-earner couples.

On the contrary we need to be conscious of the consequences of policies that promote gender inequalities especially in women's work trajectories. In Australia, until 2009, the lack of policies to support mothers' full occupation is source of widespread perceived gender inequity in the realization of women and men's childbearing and career preferences. And the discrimination does not regard only women's desire to be involved in both family and labour market, but also men's aspiration to be involved fathers. The institutionalized roles of full-time mother and full-time breadwinner father should be both considered as possible sources of parents' frustration. Another social discrimination might concern the great advantages that economic resources lead in a liberal context: having the economical possibilities to pay for the costly private childcare services allows to some mothers to keep investing in their work career. On the



contrary, for economically disadvantaged households that cannot afford this possibility, the availability of informal childcare (e.g. grandparents) is the only option for mothers to keep working. This is what seems to happen during the last decade, where the increase in women's employment has been largely supported by informal childcare, while only a low percentage of children attend private childcare services (Chapter 1).

Taking everything into account, the transition to the first parenthood represents a big change for both the partners, strongly affecting their life balance and future perspective. But especially the enduring difficulties and the high costs that Australian women have to face in reconcile family and work seem to be an important source of conflict for couples at the transition to parenthood. And, as a consequence, the main reason of the sometimes difficult transition to the second child.

### **V.III Further development**

Close to the need for a comparative study that allows weighting the role of the contextual variables (such as the family policy structure), another interest effort could be made in analysing the consequence of the change in the Australian family policies between 2009 and 2011. If the difficulties in adjustment to parenthood depend on the lack of policies for working parents, the introduction of universal paid parental leave in 2011 might have interesting effects in reducing such difficulties. Nevertheless, according to McDonald and Moyle (2010), we might be cautious in thinking that, even if the adjustment to the first parenthood might take less time, we would see results in terms of fertility increase. In fact, despite the fact that Australia is a liberal country that does not provide support for mothers' employment and work-family balance, the fertility rate is really close to the replacement level. According to the authors, this might be due to the widespread values system: parents are used to struggle trying to balance family and work commitment also because women are culturally strongly oriented to combine family and work career. In this sense, it might be

interesting to compare Australia with a conservative country (Esping-Andersen, 1990), where women are still fighting for the social recognition of their double commitment in family and work.

Other developments are more linked to methodological limitations of this study. First of all, with a multi-step analysis I succeeded to encompassing the dynamic of the relationship between subjective wellbeing and fertility. Longitudinal analysis helps to overcome some limits related to endogenous results, even if we do not completely solve the problem of reverse causality, in particular in the relation between the changes in subjective well being and the changes in fertility intentions. For this reason, results must be read in terms of associations more than of causal relations: with a bigger sample, more elaborated models might solve also the problem of the interpretation of the reverse causality. The second point is partially linked to the previous one, and it mainly deals with the small sample size. What this study lacks is an analysis of the postponement, because of data limitations. I have reason to think that, with the possibility to follow couples for more years, it might be found that the postponement of the second child, or the decision to remain with one child, can be linked to a persistent difficult adjustment to parenthood. The results of the event history analysis support the hypothesis that a more difficult adjustment to parenthood increases the time for the transition to the second child, but for the moment we cannot really assess its role in explaining postponement.

# Appendices

**APPENDIX A: Distribution of the sample characteristics at the year of the birth of the first child (relative frequencies).**

	Women	Men	Couples
<b>Education level (% individuals)</b>			
<i>primary</i>	12	11	
<i>secondary</i>	69	81	
<i>tertiary</i>	19	8	
<b>Couple education homogamy (% couples)</b>			
<i>low ed. homogamy</i>			47
<i>he more educated</i>			9
<i>she more educated</i>			22
<i>high ed. homogamy</i>			22
Employed during the pregnancy (% individuals)	82	93	
Employed during the birth year (% individuals)	47	94	
Employed during the first year (% couples)	72	94	
Married (% couples)			79
<b>Unexpected difficulties (% couples)</b>			
<i>both unexpected difficulties</i>			41
<i>she unexpected difficulties</i>			23
<i>he unexpected difficulties</i>			15
<i>neither unexpected difficulties</i>			21
Mean age at first birth	29	32	
<b>Total sample (N)</b>	<b>277</b>	<b>277</b>	<b>277<sup>a</sup></b>

Note: <sup>a</sup> during the last year N=221

**APPENDIX B. Growth model for fertility expectations including control variables and unexpected difficulties covariates, for women and men.**

	Women	Men
<i>Time:</i>		
Birth year	- .416	- .458
First year	.153	- .629
Second year	.768	.023
<i>Unexpected difficulties in parenthood</i>		
Unexpected difficulties (birth y.)	- .171*	- .205**
Unexpected difficulties (first y.)	- .292***	- .137
Unexpected difficulties (second y.)	- .604***	- .353**
Both unexpected difficulties	- .094	.007
She unexpected difficulties	.278	- .111
He unexpected difficulties	- .316	.346
<b>Controllers</b>		
<i>Personality traits</i>		
Extraversion	.144	- .105
Agreeableness	- .009	.184
Emotional Stability	.029	.106
Conscientiousness	.072	- .010
Openness	- .136	- .154
<i>Demographic characteristics</i>		
age	- .085***	- .033
Partner's age	- .028	- .097***
secondary education	.021	.172***
tertiary education	.072	.028
high homogamy	- .343	.125
He employed	.056	.647**
<i>Employment trajectories</i>		
Inactive (preg y.)	- .318	- .694**
Employed (preg y.) – Inactive (birth y.)	.228	.416
Inactive (preg y.) – Employed (birth y.)	- .813	- .575
Inactive (preg y.) – Inactive (birth y.)	- .722*	- .599
Employed (preg y.) – Inactive (first y.)	.176	.438
Inactive (preg y.) – Employed (first y.)	- .692	- .729
Inactive (preg y.) – Inactive (first y.)	-1 .400***	- .863
cons.	11 .957***	11 .680***

Note: \* =  $p \leq .5$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$  Note: N = 836

**Appendix C: Log-logistic hazard model for the transition to the second child with fertility expectations. The models include all the control variables**

	Unexpected difficulties <sup>a</sup>	Marital Adjustment <sup>a</sup>	Unexpected diff. + Marital adj. <sup>a</sup>	Family Adjustment <sup>a</sup>	Work Adjustment <sup>b</sup>
	<i>Coeff.</i>	<i>Coeff.</i>	<i>Coeff.</i>	<i>Coeff.</i>	<i>Coeff.</i>
<b>Fertility expectation (WOMEN)</b>					
Fertility expectation	-0.03*	-0.05***	-0.04*	-0.04***	-0.03**
<b>Fertility expectation (MEN)</b>					
Fertility expectation	-0.01	-0.02	0.01	-0.03	-0.02
<b>Marital Adjustment (WOMEN):</b>					
Satisfaction with relationship with partner (SRP)		0.14**	-0.11*		
Decreasing SRP		1.57***	1.33***		
Stable SRP		1.29	0.92		
Decreasing SRP * SRP		-0.20***	-0.17***		
Stable SRP * SRP		-0.16**	-0.12		
<b>Marital Adjustment (MEN):</b>					
Satisfaction with relationship with partner		-0.15**	-0.13**		
Decreasing SRP		-1.19	-1.07		
Stable SRP		-1.78***	-1.75***		
Decreasing SRP * SRP		0.13	0.12		
Stable SRP * SRP		0.19***	0.18***		
<b>Anticipation: unexpected difficulties</b>					
She unexpected difficulties	0.091		0.02		
He unexpected difficulties	0.127		0.12		
Both unexpected difficulties	0.154*		0.10		
<b>Family Adjustment (WOMEN)</b>					
Fair share of housework				0.06	
More than fair share of housework				0.05	
Fair share of childcare				0.39	
More than fair share of childcare				0.33	
<b>Family Adjustment (MEN)</b>					
Fair share of housework				-0.10	
More than fair share of housework				0.26***	
Fair share of childcare				0.06	
More than fair share of childcare				0.21*	
<b>Work Adjustment (WOMEN)</b>					
Satisfaction with work					0.02
Stable Sat. Work					0.10
Decrease Sat. Work					0.12
Working time less enjoyable					0.01
Turn down work opportunities					0.03
<b>Work Adjustment (MEN)</b>					
Satisfaction with work					0.02
Stable Sat. Work					-0.01
Decrease Sat. Work					0.17
Working time less enjoyable					-0.05
Turn down work opportunities					-0.05

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$ . Note: a N=667; b N=361 (only dual-earner couples)



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